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SCHN.PA - Schneider Electric SE Capital Markets Day

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PRESENTATION

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Good morning, and welcome. Welcome to all of you. I'm so happy that we have a pretty full house here today. I'd also like to welcome so many of you who are joining us on the webcast. I believe that we had more than 1,000 registrants for the webcast as well. So delighted on behalf

of all of Schneider Electric to have you here for our Capital Markets Day of 2023.

When we were planning for this day, one thing we wanted to be sure of was that we wanted to use a customer site. And I'll tell you that we were inundated with the options that we had, but we finally chose this magnificent venue today, which is the world's most technologically advanced stadium. And what's exciting is that it's full of Schneider technology. You'll have a chance to experience it all today later in the afternoon.

At the same time, I want to talk about the agenda that we have for today. But before I do that, just a quick reminder of the disclaimer. You know this well. We talk about it. But when we work out the agenda for the day and as we were planning it, we've really taken the feedback from all of you in the last several months.

So what we have is the opportunity to meet and listen to a lot of our executive team. Several of them will be up on the stage here today, and several others are in the room. So please take the opportunity to meet with them as well.

We'll obviously talk about strategy. We have a specific focus on software, our agnostic software portfolio. We are going to talk about end markets and key segments and more importantly, what are the offers, the specific offers that we have for those end markets. We do have a break in about 2 hours' time at 10:30. And then we have sessions with our businesses focused on innovation and R&D. And then, obviously, it's the financial targets, and you probably are already aware that we have a financial press release, which has been released this morning. We will have a Q&A session. And after that, I'll come back with more details, but there will be the opportunity to see the technology in action.

I have to point out that we have some very special guests with us today as well, some customers who have come, and we're excited to be able to have discussions with them as well. So that having been said, without further ado, I'm delighted to welcome on stage, our CEO, Peter Herweck.

Peter W. Herweck - Schneider Electric S.E. - CEO

Wonderful. Good morning from my side as well. Really delighted to be here and have this in person. We've had, I think, the last 2 or 3 Capital Market Days that I participated in Schneider, of course, in a different function.

We just looked at this camera and no feedback in the room, so it's fabulous to be in person. And then, of course, also have 1,000 people online. This is a great showcase place. I went and looked yesterday really impressive, really, really impressive. Also for other clients that have come here copying the technology. You'll see that later on. You wouldn't imagine what this building here can actually absorb in respect to technology. I think nothing that we're doing. You won't be finding here in the location. So that's great.

Two things I want to achieve today at this presentation. Number one is to talk about the next frontier for the group. And in that, what is our #1 value driver for the company, which we believe is growth. Secondly, as we're kind of bring the company more and more into the tech space. We talk about industrial tech. And I want to leave you with some key insights why that's the case.

Of course, please don't expect revolution here. I've been in the company for 7 years. So this is rather a change in continuity with what I will promise you a stringent execution. Now the company is -- for those -- many of you who follow us for a long time, we're just amazingly simple, a powerhouse of electrification and digitization. Very simple, no distraction, and an ESG champion that has really positioned us so well in the market. And we say sustainability is driven by electrification and digitization. When we say digitization, that's, of course, automation and our software together in that space.

The sustainability approach and the software approach has started to bring us at the C level of our clients. Many people that follow out for many years, we've evolved from being a pure partner-led company to now being close to our customers with a big portion of our business and have really the talking points in respect to sustainability and digitization with our customers at the C level. Now our distinct multi-hub setup. I'll talk about this a little bit more because we think it is very special.

Our clients think it is very special, and you'll see it is very special, has brought us forward in a very world-leading portfolio that is adjusted to the geographic needs where we are active.

Now of course, I was handed the keys of a company that's in good shape. Here, at the 2022 final values that we had in revenue and profitability and then free cash flow, 3 KPIs that will -- I will follow on very stringently. Now we're a committed guardian of the company. And I always say the key of the company has just landed to me, and I'm very humbled to have taken over a company and the legacy that has been built over the last 35, 40 years with a technological leadership then with a sustainability focus, very proud that I have personally participated the last 7 years in building the digital transformation of the company with a couple of key acquisitions that we've done and we'll talk about what's next in that respect.

Now as I said, as we curated our portfolio to drive the decarbonization and sustainability at our customers in the core. On the electrification side, I think, is very clear to everybody, clear #1 position across the world in all geographies in the U.S., in Europe, in India, in China, no question, #1 position and very well positioned also against the local players, which is very, very important.

Now when you move to the automation side, a full liner from grid to building to process automation, to discrete automation, we've built a distinct portfolio that allows us to have specific position with great products and trying to disrupt the automation space with a software-defined automation as we go forward. Now on the digitization side, really, really leading end-to-end life cycle software portfolio in exactly what our customers do. That differentiates us from others.

Now let me go a little bit more into detail how we set this up also from a reporting perspective and how you see us from the outside with the 2 distinct businesses, energy Management, and you know it 2022, roughly EUR 26 billion franchise, #1 in medium voltage, #1 in low voltage, #1 in field devices and wiring accessories together, and #1 in UPS, by the way. So super great portfolio in that perspective.

If we go to IA, reaching EUR 8 billion roughly last year, leading in safety, in the contactors and other automation products very distinctive position in motion. And then on the control side, we're trying to disrupt the space with a software-defined offer that we're driving out. Now these 2 franchises with the software and the sustainability of as the sticky glue for our clients make us really, really, really unique. So on the software side, many questions, we've moved to a very high level of recurring revenue. We'll talk about this in much more detail as we've put our agnostic software together very quietly over the last couple of months. I'm very happy today to have representative of all our end markets of clients, either here or on video, who will be talking to you to give you an idea of what they do with our offers, with our knowledge and to drive value.

Now looking forward, what are some of the key drivers for Schneider, specifically for us that will drive the expansion of market? And I'll talk about those 5 mega trends in the new frontier. I just want to give you an indication what we are thinking about the accessible market for us, a 6% to 7% CAGR over the next 4 years. That's EUR 100 billion more of market potential for us to capture. And I'll outline this a little bit more in the end markets. So you can see why we believe that we're ideally positioned to drive in those markets.

Let me go quickly through those mega trends, and I start off with the one that's on everybody's mind at the moment, digitization and AI. Of course, we've been talking about AI for 50 years. Actually, as a young student, I wrote my thesis on AI. What's happened in the next 30 years? Nothing, nothing.

But if you look at the last 12 months, with the evolution of large language models and AI, this market has tremendously taken off. I believe it's bigger than the worldwide web from what we see in the future. It will need massive compute power. We like compute because compute needs power, compute needs cooling, compute needs more data centers. It will also drive much more usage of structured data and applications and connected products, all the things we have built and lined up over the last couple of years to be able to materialize on this trend.

You'll also see that the digital twin with this technology will have a totally new meaning when Rob presents it later on in the next presentation that you will see fabulously how we can use that technology also embedded in our products. So a great presentation to come.

Second mega trend, climate change. This is a big problem, a big challenge for all of us, and I believe our generation and technology needs to help to resolve this challenge. -- in that respect. It will also change the energy landscape in respect to generation. While we're not in generation, of course, we help energy generators to drive new energy forms forward. While hydrogen and carbon capture storage utilization are still at its infancy, they generate quite some nice revenue for our software companies to be able to design and build and simulate these plans as they come to market, you will see later on as well.

Now on the nuclear side, it's probably a renewal of nuclear ideally positioned as well with our franchise in electrification, also in automation. And then in the software, some of our software offers are the only software offers that are qualified and allowed to do simulations and usage in the nuclear environment in ETAP. So great opportunity for us. We think nuclear is going to be big. The biggest of those 4 is what we call prosumer. So let me go a little bit more into detail in respect to the prosumer space.

So you consume, you produce and you control your own energy environment in your ecosystem that can be a building like this one. You'll see that today with some of our power advisers that are here in the building. It can be a residential space. where you have an app to control your energy usage while you're at home or maybe not at home. And it's different also from geography to geography. Even in some geographies. If we take the U.S., for example, and Aamir can talk much better about this and will -- sure will.

But if you go to California, for example, there is regulation. Every new house needs a solar rooftop that has influence on your panel in the house. Now in the U.S., 4 out of 10 panels are our panels. Meaning, it's the customer's panel, but our stuff is in there. We have built it. Our contractors have built it. Our electricians have built it.

You go to another market, I just was in Germany 2 weeks back. And in Frankfurt, they're building 1 large complex, 4 houses, as small as 120 meters high, the largest double, multi-use. You go into the garage, 400 charging stations, 400 charging stations. In this new development, everything from Schneider. Of course, you need to manage your energy within this small mini grid to be able to balance the loads that you have. And if you come as a user, you want to reserve your meeting room, you want to reserve your charging place and so forth. So that's where some of our software is used. That's why the multi-hub concept is so important because our people understand locally what the requirement is and it is different, and they have the ability to decide and translate it into products.

Of course, we make sure that it's on the same platform. So quite an interesting market that we believe will double in the next 4 years. Our first hardware offers and software offers have hit the market or will hit the market this month, and we go geography by geography to build it out. Also, a couple of software companies we bought early stage, as you can see here, and we're starting to bring those together as we grow them and materialize on their abilities.

Now when we talk about the energy transition, energy transitions because again, different geography. Big, big, big opportunity for us. Two things I want you to remember from this slide. One is 2020, 20% of the energy mix is electrification, 20%. Electricity is the most efficient secondary energy form on the planet. No need to go from electrification to something else or something else to go back to electricity and in between lose a lot of percentage. So this will go from 20% to 30% in 2030 to 50% in 2050. So a huge expansion of electrification, plus the incremental demand on energy that I will be talking about.

The second is, of course, how do we help to decarbonize. And already today, the technology that we have can actually decarbonize or remove 70% of the CO2 in respective markets. If I move to what we call the evolution of wealth, others, I would say, how is the world expanding. Where will it expand, big opportunities again for Schneider. If you just look at the population growth and the growth in urban areas and the amount of people that will come into those areas, we are talking rather the Southern Hemisphere of the planet. So India, Middle East, Africa, very important position for us. And most people don't know, if you look at India and the Middle East, Africa, that's roughly, for our business, the size of China. It's big. It's very big.

And if you need to build space for those people to live, we need to build 100 billion square meters of living space. For those who like square foot, it's an even more impressive number. It's 1.x trillion, 1.1 trillion square feet of living space that needs protection. It needs power products. And I tell you, in those areas where it's built, the population is much, much younger. They expect digitization from day 1.

If you go to India, at least, I know of 13, 14 smart cities being built. All of them deploy AVEVA software and other products from Schneider. These cities will be built digitally, big opportunity for us. But then we shouldn't be depressed also in Europe and other mature economies. We need to refresh what we have. We need to refresh what we have because we need to decarbonize.

And if we continue to decarbonize at the speed that we're taking at the moment, it's going to take us 150 years, 150 years to decarbonize the existing infrastructure. So we need to go 10x faster. That's why we're so glad with the International Energy Agency in June, when we're

sitting together with 40 CEOs and even more government officials that we jointly developed 10 actions to go 10x faster in the decarbonization of the existing infrastructure, that's -- there big opportunity again for us.

Now last mega trend, what we call the new equilibrium. It's complicated. And we believe it will become more complicated and the landscape, the new landscape may pose risks. At the same time, we believe we're very well prepared again, with our multi-hub setup.

Why is that? Because we can decide locally what products to do, how to do them, manufacture them and be almost independent in those geographies. The good thing is that in these important geographies, some of my executive committee colleagues sit, they're local there. So when we sit at the table and discuss in our Executive Committee, I have 8 different passport holders, and they come from 8 different countries, very deeply rooted, and they understand what's going on. We don't need to call somebody. We're all sitting at the same table to be able to decide. And these countries, we can have them run quite independently, which may be necessary if needed.

Of course, there is also opportunity because people start reshoring. They start worrying about their supply chain. So it's all good for more automation and for more electrification. Why do I say both? Because automation because of the workforce that may not be there in the country. Secondly, bill of material in respect to energy is going to be 1 of the highest ones that you have if you move to some other geographies. So you want to reduce your energy bill plus you need to automate. And the best thing is you do it together, and that's where Schneider comes in. So quite, quite, quite good for us.

And there are big investments in the U.S., in Europe as well. And in India, supported by government programs. You know all the abbreviations. I'm not going to go through those, there are plenty of them, and I'm sure we're going to be talking about this. So we have a very, very, very good visibility on what's going on in those markets into the pipeline, into the projects that are coming. And with that, we can and want to be bold in our ambition.

Again, these mega trends just reinforce our strategic positioning and vision. It's very important because maybe everybody has it, but it's about how are you positioned to materialize on those unprecedented opportunities, of course we're seeing that there are some volatilities in the market. We're not blind about those, but one needs to see the bigger picture. And then on a quarter-by-quarter basis, we worry about what's going on in an agile fashion, and we'll talk about this as well as we go into some capital allocation and so forth. And the end markets that we've chosen very, very good. It's deep into the company because if you see the mega trends, it's all about making the best out of the energy and resources that are there to bridge progress to sustainability for all.

Remember the 1.5 billion people that are more in the Southern Hemisphere, for all. And that's why you need to be, and our mission is to be the digital partner for sustainability and efficiency. Now I'm not going to go into all details, but we hear you. You'd like to have a little bit more detail on our end markets, what are the specific segments, what's our positioning, how do we see the CAGR of those markets a little bit more differentiated, and what are the key drivers to drive growth as we see it, what's our business model in respect to product systems.

And you see in particular, and that's what I want to point out, our distinct position in industry and infrastructure is because of the combination of energy management and industrial automation and software. And you see it's the highest software content on a percentage basis in infrastructure that makes us so unique in those markets.

And we've picked, of course, also carefully the end markets where we want to be active because we have distinct offers that allow us to be successful in those. Now everybody, of course, waits that we talk about data centers, we do. And we have some showcases outside because it's probably the largest opportunity at the moment that's in front of us.

And the -- it's top of mind of everybody how we can serve that demand in a good way, respectively. It's we have an unprecedented set of offers that you can see here. It's very, very small, maybe here is a little bit larger, just shows you the comprehensiveness of our set of offers to attack this market to take away interfaces for our clients to make it very simple for them to drive solutions forward in these high productivity data factories that we're doing there, be it a hyperscaler or colocation provider.

And a lot of the AI will also go at a certain point in time to the edge where we also have a very, very strong position. Today, 19% of the group, undisputed #1 position, Schneider Electric, undisputed. You calculate yourself the revenue that we have here. It has been and it will continue to be a double-digit growth market. You can go back and calculate the last couple of years, you'd say, well, this was not 10%. No, it wasn't 10%, our number. The market may have been. So we're driving penetration into this market. We like the mix that we have in respect to geography, in respect to offer, in respect to business model, products, systems and also software that is important. Even more important when you go into the heavy AI, learning model, data centers, where you want to distribute the heat quite carefully in that respect.

But why should I give you all the sales pitch about it? I'm very happy that we have a visionary in the field with us, Founder and CEO of Compass Datacenters, Chris Crosby. I'm looking forward to your speech earlier. Thanks very much for making the way here and joining us. Next to Chris, we'll also have remotely Nicole Dezen. Nicole is the Chief Partner Officer of Microsoft. The largest driver of large language model AI at the moment, and she's going to be talking about our partnership as well, and you'll get a picture at the end of the day, why we are confident in this space to deliver in multiyear engagements because this is going to be a growth market.

Will it stop at a certain point in time? Hey, I don't have the glass ball. We said this, it stopped 5 years ago, and then we had streaming. 5 years earlier, we said it's going to stop them. We had -- then we had blockchain. So we had all kinds of new ideas that came over time, and they continue to grow. I don't know it's going to be there in 10 years, but I can tell you this trend is going to be with us for some time.

Now when we talk about sustainability with electrification and automation, why we're also confident and these drivers here they're all precisely wrong. But for me, what's more important is that they're directionally correct. They're directionally correct and show the expansion of electric vehicles. They show the expansion of heat pumps, battery storage and so forth. So what does that mean for our gears and our automation in those. Let me pick just 2 examples.

If you take EV and the expansion of EV, no matter where it is. And for those who haven't been in Shanghai lately, I can recommend you go. There is 50% electric vehicles already, 50%. Tremendous speed that is deployed there.

Will there be bumps in the road? Of course. But long term, this is going to come. Now if you put EV, for example, in the U.S. into your house, it has influence on the power load of roughly 40% fluctuation. This needs to be managed, and it has influence on the panel, the panel, who is the owner of the panel, just a reminder, the owner of the panel to the 4 out of 10 in the U.S., us. And we want to expand on those opportunities with our electricians and with a couple of thousands of contractors that are on our platform that I showed you earlier.

Now if you go to one of the slower starting trends of process electrification, and there are some challenges to it. But if you look at the speed that is anticipated to take great opportunity for us in respect to bringing software, automation and our gears together with process simulation of AVEVA. We simulate the process, how we can improve the process, then we simulate the electricals to see what it means to the cabinets that need to be put in there. So dynamic simulation for the process for the electricals. You go into the cabinet and you go into the process automation, it's a big opportunity for us in that respect, and you'll see some examples of it.

Now Caspar will present AVEVA in our agnostic portfolio and what kind of opportunity it brings for us in the IoT-enabled world. And you see our end markets here on the chart paired also with AI and gen AI. We use that stuff already. You'll be impressed later on in the presentation that you see how we allow them to our clients to use gen AI to better utilize the strong platform that we have. And that's why I believe I can be talking about an industrial tech company, Schneider Electric, leader in the field, leader in creating holistic efficiency for our clients with our agnostic software portfolio.

A couple of years ago, when we acquired OSIsoft, people thought this was quite expensive. But they also congratulated us because it is the industrial data platform in the world, thousands of clients, very low churn and industrial data is getting more and more and more expensive as you make this data available on the platform that we call Connect and you'll see that later on, it will be agnostic where our software companies will utilize this data that is available on-prem and in the cloud with 1 data infrastructure. And we've given the customers 1 experience. They can use 1 currency that we call Flex with a currency that can subscribe the software and they can subscribe any of those software with the flex points that they have bought. And that enables them to do 1 digital twin, be it in the energy space, be it in the process space, be it in the electrical space or be it combined,

you'll see that in a minute. And we've put this wonderful cloud there in the background, if you haven't recognized it, all of that is available on the cloud.

So the journey to subscription and to SaaS has gained speed since we have taken -- I wouldn't say we have taken AVEVA private. We've taken it from the U.S. stock market and put it into the French stock market under the umbrella of Schneider, but the speed of subscription and SaaS has substantially improved. Now all these software companies that we've acquired can now benefit of 1 backbone in the company to drive subscription, subscription management, IT systems and so forth to gain efficiency and gain speed in their journey to subscription.

Now it's not only about having great products. It's also about how do we bring them to market? And why are we -- why do we believe we're ideally positioned to do that. So I want to talk about the key markers and strength of the company that will allow us to be more successful. Again, 5 mega trends, 5 key markers, the ecosystems of partners. I'll talk about this in a minute. Multi-hub, I go a little bit more into detail. Of course, our global footprint, sustainability, and then also the culture in the company that is so important.

Now a lot of people can talk about these huge numbers of a partner ecosystem, and we'll have one of our largest billion-dollar partners talk to you later on, the Chairwoman, President and Chief Exec of Graybar, Kathy Mazzarella. She will be talking right after my speech to you to give you an idea about those generational partnerships that we have. And they're not a generational and old. They're generational, and we've transformed them. We've transformed them to be more digital, to be more connected, to be closer to the customer, how the world of distribution has changed, you'll also see. It's about the management of these partners, the training, the close working together that we have. If I was thinking of words to describe our partner ecosystem. I think it's long term, it's unprecedented. It's unique, it's distinct, it's loyal long-term partnerships, global and local.

People from the outside admire this and I can tell you, this is very, very difficult and long term to build and very strategic for us. It creates and it turns roughly 60% of our revenue. While we spend a lot of time, of course, also creating demand, as I said earlier, as we have access now to the highest level at our clients. and drive this forward. Now the multi-hub I mentioned it, I don't want to dwell on it. You see how our revenue, our headcount is divided and also how we're able to locally design products, develop them, manufacture them, source, sell to the local needs, all the way to the executive table in the company to make that happen and do it in a very agile manner if we make mistakes.

I want to spend a second on the industrial footprint or our balanced footprint. And I pick India because it's on everybody's mind, we may not have been the first 1 to be there, but I can tell you we're committed. We've taken big steps into India. 38,000 people working for Schneider in the country with plenty of facilities. And with the acquisition of L&T E&A, we've now been able to also address the rural area where we weren't so strong.

So we're covering the rural area with L&T E&A. And with our offers, we're covering more of the urban areas, and that positions us super clearly as the #1 in this fabulously growing market. Of course, we've been working on our supply chain. We're proud that we've been named #1 supply chain by Gartner. Have we had supply chain problems? Of course, everybody had last year, but we're ideally prepared to drive the growth going forward.

Now if I go beyond and look at the focus on sustainability. One model that we're trying to drive forward with our clients, we help them in defining their sustainable journey to strategize with them in a consulting fashion, then we help them to digitize. So they have full visibility of their operations and then also help them to decarbonize with our equipment with PPAs, with managed services and so forth. Great business that has meanwhile grown to roughly EUR 700 million, next to our own efforts that we're driving.

And the reason we can talk about this in this fashion, 40% of the Fortune 500 companies are our clients. And we help them in their decarbonization journey also in networks to drive decarbonization in the semiconductor industry, in the transportation industry and in other industries.

Talking about culture, I think it's something very important for every company and is on the top of the agenda of the CEO. We are very proud to report that our engagement index with the people has yet increased another 3 points when we measured it this summer and the second key point I want you to take home.

The third largest shareholder of the company is our people. We're very proud of that. More than 40 countries with our own employee shareholder program, where they have acquired shares quite. And it's not only our view here, you can see a couple of logos of companies that also recognized for, it is something we work on actively. We're proud on. We are proud that our people create impact for it.

Now of course, we've talked 5 mega trends. We've talked about the 5 key markets. What's on your mind, Peter? We see you the first time in this role. What are -- again, the 5, it seems like the 5 by accident. What's on your mind and focus areas. So I want to give them quickly to you.

Number one, execute on sustainable growth. The mega trends are going to help us to do that. We're ideally positioned and we're driving a growth culture in the company to materialize on them. Secondly, we have a unique position in ESG, and we're going to continue to drive that with electrification plus digitization to drive sustainability at our clients, but also internally it's deeply rooted in the company, and there's a lot of engagement in the company to do it and reach our Scope 1, 2 targets for '25 and '30. You have them all lined out there. And also the first partnerships in the upstream Scope 3 to drive it forward.

It's the right thing to do. It creates a business for us, and our people love it. Organic expansion of our product franchise. And Hilary is going to go, of course, into more detail on that. I can tell you that we will be ramping up our R&D intensity also as we shift more towards edge controls and software that comes naturally, but also investment into our product area.

So our R&D intensity will probably go up to 7% in this next frontier. Something that I'm attached to, also the return on the invested capital. Of course, I will see and the team, Olivier and Barbara will talk about this in one of the sessions.

The software and consumer offers great opportunity for us to bring us into the top level of our clients. We've talked about 1 data, 1 experience, 1 digital twin. We want to be the digital partner for our clients and continue to drive in that respect. And then #5, AI, as I said, is the biggest opportunity that we have, we're ideally positioned with gen AI, respectively, in our products, in our own company and how we help our clients and the world to use it in data centers that we're building together. Now you take those management priorities coupled with, of course, some financial priorities. And of course, Hilary can talk about those much more eloquently than I. So I won't be doing it to create the shareholder return.

But I do talk about the disciplined capital allocation because, it's something that you want to hear from myself and say, what's the CEO saying? We are really attached to our investment credit ratings, in particular with rising interest rates. That's important for us. And we will continue to focus on progressive dividends like we've had done in the last decade plus.

And then, as I said, fund our organic growth with up to 7% in the next frontier on R&D intensity. And then, of course, there is portfolio evolution and share buyback, but very clear, no transformational M&A on my current agenda. The portfolio evolution we've gone quite good in the last sequence and we'll continue to work on divestment and portfolio optimization where needed. And in respect to acquisitions, we continue to be opportunistic in areas that follow exactly our strategic priorities and growth markets.

So where does that journey bring us? And I'm mindful of the fact that I'm 5 minutes over. I like 5. I also like EUR 50 billion. EUR 50 billion revenue, we think, in the market with the mega trends, how we're positioned, how the team is driving it, is possible. But we cannot feed you with revenue. We need profitability, EUR 10 billion, 2x5 adjusted EBITA. And of course, we want to translate this into a free cash flow. So we talk about the conversion, and that's to be expected to be at 100% of net income over the and across the cycle.

So that's it. Nothing more, nothing less. Looking forward to the rest of the day. See you again for the Q&A and the breaks. And now with that, thank you for the attention. Sorry for my voice, and see you in a bit. Let's hear, Kathy. Also an impact maker.

Kathy Mazzarella

Hello. I'm Kathy Mazzarella, Chairman, President and CEO of Graybar. Graybar is one of the largest North American distributors of electrical, industrial, data, communication and security products, with more than 9,000 employees, 325 locations across the U.S. and Canada and \$10.5 billion in revenue, we are a leader in providing comprehensive solutions to the industries we serve.

Graybar's relationship with Schneider Electric dates back more than 120 years. Today, Schneider Electric is Graybar's largest supplier, and Graybar is Schneider's largest North American distributor. A relationship like ours that not only endures, but also become stronger over time is truly extraordinary. This relationship is deeply rooted in a shared commitment to integrity, ethics and doing business the right way.

Graybar and Schneider are both companies that have held the highest standards. And from the beginning, our relationship has been built on a foundation of mutual trust and respect. We are extremely proud of our work with Schneider, and we are even more excited about our future together. Schneider is widely recognized as an industry leader for its focus on innovation. The company continually enhances its offer to remain relevant to its customers. Schneider also focuses on expanding its capabilities with integrated solutions that improve sustainability and efficiency across a wide range of industries. One of Graybar's key strengths lies in our experience with both energy management and industrial automation.

Schneider Electric plays a pivotal role in the solutions we offer for these applications, which allows us to bring even greater value to our customers. As a distributor having the right manufacturers and products is vital to our success. Our strategic relationship with Schneider is unlike any other. We count on Schneider for the innovative products our customers need so that together, we can deliver exceptional results for those we serve.

Like Graybar, Schneider has a long-term perspective and a bold vision for what is possible. We believe the future is bright for clean energy, digital, smart building solutions, and we are excited to work with Schneider to bring those solutions to market.

Graybar is also investing in the technology and capabilities to transform our business and to deliver even greater value in this fast-changing world. Over the past 120 years, Graybar and Schneider have proven that both companies are better because of the great work we do together. We look forward to the future with confidence as we explore new ways to make a difference for our customers, our industry and our planet. Thank you.

Caspar Herzberg - Schneider Electric S.E. - CEO, AVEVA and EVP Schneider Electric Software

Yes. It's a pleasure to be here today. My name is Caspar Herzberg. I'm the CEO of AVEVA and the ExCom responsible for software, for the agnostic software companies in Schneider Electric. I'm going to -- for those of you who haven't met me, I've been at AVEVA about 2 years on the commercial side under Peter, took over as CEO in March. And before that, I worked at Cisco, Accenture and, of course, Schneider Electric.

I'm going to talk to you today about what we have in terms of capabilities in our software companies. I'm going to talk about what we are planning to do, how they are commercially faring and what our vision is as laid out by Peter already. But at the heart of our presentation is what it's all about, which is I'm very lucky that Rob McGreevy, our Chief Product Officer and the godfather of many of our solutions, is here today. And he's going to spend quite a bit of time showing you how it really all comes together on one platform, adding value for our customers in the industrial space, okay?

So that's what we're going to cover. Now the first thing to say is that within Schneider Electric and as a matter of fact, as laid out by Peter, in industry in general, digitization is core. It's core to Schneider's journey. It's core to the journey of much of industry today.

And our agnostic companies, so AVEVA, industrial software, RIB, construction management software, ETAP, electrical design software are perfectly positioned to play a key role in this journey, in this journey to a more sustainable, better future, right? And they are -- they seamlessly interface with aggregation, infrastructure like EcoStruxure, they interface with many other such layers, and they are fed by with data in context, whether that's time series data, whether that's other data that comes from other software systems, from systems in general, from sensors from the sensors that sit on the edge that create enormous amounts of data today that feeds if you like, not just the performance applications that make much of what these softwares do today, but also the industrial artificial intelligence that we use to manage and operate and predict much of what happens in the industrial life cycle, okay?

So that's our position within this. Now the mega trends that Peter laid out very much apply to us, right? Simply put, they are driving other than good leadership, of course. They are driving our software growth, right? We truly feel that we have wind in our sales. On the one hand, you have what is truly a tech tsunami. You have all these new applications coming to market at increasing speed.

We talked about AI, but there's also virtual reality. There's many, many other powerful analytics solutions coming out. They are the living digital twins, the ability to have a life-size not just exact depiction of a complex industrial asset, but also to feed operational data through it and see that and interact with it, whether you're an engineer or a CEO, right?

You have, at the same time, these -- the reconfiguration of supply chains, which in simple terms for us means a lot of new assets are being designed and are being brought into action. All of this need software, all of this needs to be managed and operated, right? And of course, you have multiple energy systems now competing, if you like, right, sustainable technologies competing because of the big second trend, which is the societal demand that is accelerating every summer when it gets hotter, right, demanding that we do more with less.

And the only way you can do more with less is by using software, using the power of AI and working with data, structured data that you can trust. That's the only way. And that gives us that additional wind in our sales that we are feeling. Now what do we have, right? We cover between AVEVA, ETAP and RIB, the entire design, build, operate, and optimize cycle of industry. You can see AVEVA and ETAP and design. I will show you a screenshot of how that really looks in a second, right? You have RIB and AVEVA in Build, working on the building, the construction of assets, right? You have, of course, AVEVA with Wonderware, one of the famous long-term, well-planned early acquisitions that Schneider did, right, in Operate. 23,000 customers, hundreds of thousands of industrial assets operated by monitoring and control software today.

And then, of course, you have in optimize not just the performance applications that you use to optimize but also the pie system, the world's leading industrial data historian, right? Most of the world's industrial data in some form fits in pie and that feeds these performance applications, right? So what you see here are some screenshots, simple ones. You see here design software used for a complex asset whether that's a power station, a refinery or any other complex asset, that's AVEVA E3D.

Then you see in build RIB costing software, project costing software, and you will see some of that in the demo that Rob has. You see under operate, monitoring and control, I just spoke to that. And under optimize, you see predictive analytics predictive analytics, a solution that uses AI that is powered by time series data from the pie system, like years of temperature data of, let's say, a turbine of vibrations of a turbine used to predict maintenance schedules and prevent unforeseen shutdowns, which are very, very expensive. This is a very powerful software that we use.

Now we have 100-plus softwares, individual solutions today, right, that have been put together patiently, strategically by Schneider over decades, with an S, right? These -- we are now in the process of bringing together on one platform, a platform that we call Connect and what Rob is going to show you now is how that really looks like beyond just this beautiful screen and a real live demo that he put together. Rob?

Rob McGreevy - Schneider Electric S.E. - Chief Product Officer, AVEVA

Great. Hi, everyone. Thanks, Caspar. It's fantastic to be here. I'm going to essentially cover a number of capabilities that Caspar and Peter outlined and how this sort of vision ultimately comes together for us.

Essentially, what I'm going to do is walk through this concept that we call Unified Operations Center. It's essentially the tool by which we bring together these different disciplines across that design, build, operate and optimize life cycle. I will point out that this technology, as Caspar alluded to, really is the culmination of 50 years of deep domain specificity and expertise that we've accumulated over the last many decades and it's been infused and refreshed with the cutting edge leading technologies, things like augmented reality, virtual reality, 1D, 2D, 3D visualization technologies. We've connected it to the cloud. We've leveraged the compute cycles and massive storage that's available to us. And of course, as Peter mentioned, the trend towards analytics and AI we've been infusing predictive and prescriptive analytics for many years now, and I'll show you in this demonstration how we're beginning to leverage some of the large language models, Peter alluded to and how we're using that for generative and how we see that sort of changing the shape of this.

Ultimately, what this all sort of culminates in is this digital backbone, this environment by which we can create digital twins, plural, that allows us to digitize all aspects of that design, build, operate, optimize life cycle to create net new value realization for our customers, prospects and partners. And obviously, that sets us up for continued growth, not only as a neutral sort of agnostic software entity, if you like, but also as a great technology enabler for Schneider.

So with that kind of as a, I guess, a backdrop, let's go ahead and run the demo. And so again, this is what the unified operations center essentially looks like. And what you can see here is we're essentially amalgamating lots of different systems and sources across the entire value chain. Performance data about how we're performing against plan, efficiency metrics about specific assets, critical pieces of our business, information about financials, health, safety, environmental, where do we have incidents and issues to address and deal with. Sustainability metrics, how are

we doing NOx emissions CO2, and of course, all sorts of other metrics that are necessary to operate all aspects of this value chain. And we do that using different personas and different use cases depending upon who you are in the organization.

And again, you do this in a very highly visual, contextually aware environment that allows you to navigate through the system to address different use cases in different scenarios. And I'm going to do my best here to try and navigate you through some of those scenarios as we go through this demo. And I apologize in advance, it does go a little bit quick, but I'm going to try to hit some design scenarios, some operational scenarios. And I'm going to end with some analytics and AI capabilities.

So if we start off with the design engineering hemisphere of the world, this is the CapEx life cycle. We've sort of panned out in our unified operations center. You can see this is a new build of a plant. In this case, it's a hydrogen plant. And we'll see all this sort of design engineering information about the equipment, the machinery, the actual 3D models. You can actually see kind of how it fits in terms of the overall operations on our geographic layout. Upper right-hand corner shows a detail of enterprise project cost summary. So this shows us on the project itself. Where are we ahead and behind for man hours, for engineering data, for construction data, plan versus actuals. And then you can see these charts at the bottom here that give you performance information about the different schedule.

Lastly, there's the key construction quantity that sort of shows, hey, how are we on Asphalt, Parkville buildings, concrete, all the sort of quantities of information. And of course, there's an anomaly that we're drilling into here that essentially shows us all the detailed data about the materials. So we had a bit of an issue on the project where we have a shortage that shortage is impacting the downstream production project that's affecting the financials. And now as an analyst, I can drill into this detail and look at the pipes in this case and see where those material shortages are from and obviously take some corrective action about how to sort of remediate that.

Now if we switch gears and go to the operational side, so panning out a bit. Now we're looking at an actual operating hydrogen plant. Upper right-hand corner shows real-time graphic visualization of the hydrogen facility. Below that, we've got all the electrification. This is information from the ETAP tool set. That gives us sort of the layout and the simulation for how this thing is behaving in the real life, real world. And then off to the right side here on the screen, we've got average plant availability, losses, maintenance, et cetera. All sort of the operational aspects of everything that I need to sort of operate my value chain.

And again, I can navigate this sort of in and out based on different contexts. Now since this is a green hydrogen plant, the green means it has to be driven by renewable energy, wind and solar. And so that's part of the top shows us that we've got some energy assets. This red dot shows we have a bit of a problem, a little bit north of the U.K. here. So now I'm going to drill into that energy facility, and this happens to be a wind farm. And you can see it's displaying all of the elements, all the assets in my specific wind farm, all in real time.

And from here, I actually could drill in further to any of the individual assets. But in this case, very interested in the performance of the fleet. And so I'm going to kick off our predictive analytics, which is telling me that we actually have some anomalies we need to pay attention to. This particular red dashboard is saying, hey, if we look at all the process production engineering and design information in the context and we run our models, our predictive models, what the system is essentially saying is that we're going to have some potential problems.

So if I click on this diagnostic tool, it's the little stethoscope scope. It's telling me that in one of those particular assets, we may have a high probability of [yaw] failure or a rotator pitch failure. These are issues that occur in the wind farm, drilling in further, the tool actually gives me some remediation. These are the things to go do to fix the problem before it actually happens. So this is predictive and prescriptive analytics sort of manifest in a real application.

Now we talked a lot about generative AI. So if I transition on where this world is sort of heading, what we believe is going to change is that this notion of generative is going to allow us to interact with these systems in a very, very different way. So in this case, I'm just asking the system, hey, are there any issues with my wind fleet, with my turbine, anything I should be aware of.

The system comes back using a generative AI model and says, "Yes, you've got some issues." In a very ribose way, it's describing, hey, you've got some problems with this specific turbine. And oh, by the way, you might want to look at these variables. And so I can come back to the system

now and essentially ask it more questions and say, "Hey, can you give me sort of more information or more detail specific about the utilization for this asset and the things that may be affecting it?"

So the tool comes back with, hey, the green is where you were producing power. The red is where you were not producing power, hence, utilization. And on the right, showing me that, that was affected by temperature. And so I come back into the generative environment and say, "Hey, it looks like there was an issue with these high temps on this particular asset. Can you find me all the bearing and nacelle temperatures." These are things that affect the process.

And as you can expect, the system comes back with a response from the language model, but we've infused into the language model, real-time process and production data that's descriptive of the actual problems for this actual asset wherever it is in our fleet. So it's a pretty interesting use of the technology.

And then from here, of course, we can link that to some of the visual elements. Now I can see that the actual variables and temperatures on a chart, I can see where they sort of drop off where they're predicted to end up. So it's a great sort of cohesive environment for sort of navigating all this information in the context of the operations that I have. And last but not least, I can also ask it to pull up a 3D model because I want to go do some maintenance or go inspect this thing out in the field.

And so in this case, it knows based on where we are contextually, what this asset is, GEO-7 and the nacelle environment, navigates directly to the right 3D model, highlights for me in context where the sort of offending variables and issues are. And from here, I can plan my work, scaffolds, maintenance, whatever the activities are. So I realize I went through that sort of at a very high pace, but [Kim] and the team are out here to show this to you at a little slower pace.

But hopefully, what you're seeing here is how we're sort of manifesting all the 50 years of innovation that we've accumulated. We infuse it with brand-new technology to create net new value, net new use cases, and how we're building this digital backbone to allow us to transcend all areas of that design, build, operate, optimize. And of course, as Caspar and Peter alluded to, that culminates in this thing that we call Connect.

Now the last thing I want to point out is that I showed you a demonstration of a hydrogen plant and some wind farms and solar. But we do this across all the end markets and segments that we serve. So we have these applications deployed in data centers. We have this deployed in water, wastewater, power, utilities, transmission distribution, mining. It's very much a horizontal technology that gets verticalized across these end markets.

And so with that, I hope you had a good taste of some of the technology. And what I'll do is turn things back to Mr. Caspar Herzberg.

Caspar Herzberg - Schneider Electric S.E. - CEO, AVEVA and EVP Schneider Electric Software

My pleasure. Thank you very much. So what you've just seen from Rob is a platform that brings not just our softwares, right, our disparate softwares together. And by the way, this is done, and depending on the complexity, in months, with a small s, the implementation of what you've just seen because they easily interface not just with each other, as you would hope for but also with other data sources and other softwares.

And that is a neat way of going into a competitive comparison, if you like, to other software vendors. Let's start with the integrated industry and software players, right, compared to them by being agnostic by interfacing easily with anyone, hardware, software, we scale better. We scale faster, both as a software and, of course, also in business.

Secondly, compared to our industrial software peers, we have in the process, batch and hybrid industries, as far, we believe, wider footprint spanning design, build, operate and optimize. So a much wider footprint. And then if we were to look at the hyperscalers, important partners, but just to look at what they do. While they have important data aggregation capabilities, right, and of course, the ability to host on their own cloud infrastructure, they are not focused on, from a business model point of view, on the deep domain expertise that you need to be not just credible in industry and the multiple processes and industry systems, right, but also to be successful without decades of deep industrial skills, this is a very difficult market to be successful in, right?

So that, in short, is how we see ourselves. Now where do we generally play? Now you know, of course, that we are an important player in industry and in infrastructure. A lot of our capabilities are market-leading in oil and gas, of course, refining, but also in utilities, in generation, whether that is traditional generation, whether that is renewable generation, whether that is in transmission, right, with the pie system and it sends us, whether it's in distribution, whether that is in -- to move on in manufacturing, food and bev, pharma and so on. So this is where the majority of our business is today.

Now through RIB, we play in buildings, right? An interesting fact is that architectural design firms are power users of RIB, right? And of course, you heard from Peter, smart cities, especially in emerging markets, especially in places like India, are early adopters of the technology that Rob has just shown with the unified operations center used to manage anything from traffic to water, to electricity, all in one place in a number of cities in the daily Mumbai industrial corridor, right?

And then when we look at data centers through ETAP electrical design, we are now growing our footprint in this important end market for Schneider. Now allow me to say a couple of words on the performance of our agnostic software companies and give you a high-level view of that performance.

First, I'm happy to report that we have a positive outlook with growth from innovation driven by technological and societal mega trends, like I said earlier. AVEVA, the largest of the 3 companies, is on track, on track to meet the targets set by our management, on track. As expected, subscription and also the accelerated SaaS transition has an impact on the revenue performance, as you would expect, as is in our plan. But in the medium to long term, we see that transition to be positive for all key metrics.

In the short term, so today, our strong annualized recurring revenue growth of above 15% we see as good. When we look at the total agnostic portfolio, it is also positive. Now RIB and ETAP are at an earlier level in the transition to subscription. What we believe we're very confident that we will be able to transition them fast as we've learned a lot, frankly, in the AVEVA experience and what will you have learned once, you don't need to learn again, at least you should avoid learning it again, having to learn it again.

Now our total agnostic revenue, as you can see here, is at just under EUR 2 billion, EUR 1.9 billion. And over the timeframe that we are discussing here is expected to grow double-digit revenue CAGR, as is or as are the EUR 700 million of Schneider revenue that comes from the Schneider advisers, the grid software and so on. That is where we are.

Now let me tell you where we intend to go. What we intend to go -- to do in very simple terms is to take not just all the assets that you have seen today. So the AVEVA industrial softwares, all the different solutions, the RIB solutions, the ETAP solutions, the partner solutions, other software solutions that are already on the platform today. Twin Thread is one in combination with Data Hub Seek is another. These are high-performance applications, optimization applications. We intend to bring all of these and in the future, many others together on this platform, this platform that we call Connect that you can visualize by what Rob has shown you.

This is how it really looks. This is what it looks to the customer. This is what it looks to the engineer or to the CEO. This is how it looks on a big screen. This is how it looks on a tablet, the same information, the same data, the same one data on a handheld, on your phone, so that everyone works from the same data, the same trusted data. Because that we believe is not just making life easier, but is a core tenet of being successful as supply chain ecosystems compete with each other in trying to do more with less.

There's no other way of getting that uplift, that 20% less energy spend and the other benefits that you can get on optimizing. Secondly, all of these softwares, you will experience, you will consume on the same platform. You will -- you heard that from Peter. You will use 1 credit, the flex credit, to buy not just our software, but the partner software. So it is a much easier way of commercially interacting across an ever-increasing wider ecosystem of solutions.

How often, think of it, does something not get done because it's just too hard to like do another contract. There's this feedback from our customers. So one easy experience. And what that then together gives you is the 1 digital twin. The one place where all your data comes together, where everything is true is the exact depiction of the asset, where operational data flow through, the place where you deploy not just your generative AI to ask questions, but your industrial AI to let processes run and self-optimize and predict and save huge amounts of money. That is what Connect is going to bring you, the one place for the industrial ecosystem to come together.

With that, thank you very much. I'm going to now play a video that says what I just said much better.

[Video Presentation]

Nicole Dezen

Hi. I'm Nicole Dezen, Chief Partner Officer at Microsoft, and I'm really happy to join you at Schneider Electric's Capital Markets Day. We've been partnering with you for more than 30 years to expand capabilities, drive scale and accelerate development for our mutual customers.

Today, we enjoy a very rich 360-degree relationship with Schneider Electric across 4 dimensions. First is buy from. Microsoft leverages Schneider's know-how in energy solutions and management for our data centers. Second is sell to. Microsoft sells technologies and solutions to Schneider for employee productivity and to power its client-facing offerings. The third is build with. We co-engineer and contribute to the development of Schneider's solutions using Microsoft Cloud, IoT and AI technologies. And fourth is co-sell. Schneider Electric and Microsoft collaborate to drive digital transformation with our joint customers. Cloud technology is expanding access to innovation beyond the IT department. And more recently, the emergence of a game changer, generative AI, is rapidly increasing the need for additional data center capacity.

To meet this strong and lasting demand Schneider Electric and Microsoft collaborate deeply on topics like energy innovation for data centers. We've entered into an agreement ensuring supply chain certainty and planning for Microsoft. The power of Schneider Electric's domain-specific solutions operating securely on the Microsoft Cloud enables organizations around the world to transform their business, modernize and automate their operations, redefine their energy and sustainability strategy execution. We are working to bring the best of Schneider Electric and Microsoft technologies together to transform grid management.

A great example of this at work is our partnership with Pacific Gas and Electric in Oakland, California, which can more effectively maintain grid reliability and accelerate customer adoption of distributed energy resources including electric vehicles, energy storage and rooftop solar. This is a major step to redefine how the grid of the future will operate. We're also working together on the latest and most impactful technologies, including generative AI.

Through gen AI, Schneider Electric is reimagining its approach to operational processes streamlining time-consuming tasks, optimizing resource allocation and gaining speed and efficiency. We will continue to work together to revolutionize how businesses approach energy and sustainability challenges.

Thank you so much for your support, your partnership and for innovating with us.

QUESTIONS AND ANSWERS

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. We start with our first panel. And as I was saying earlier in the day that as we were planning the day, the idea was to take feedback from all of you in the previous months. And one of the things that we've been hearing back from you has been that tell us more about your end markets, tell us more about the specific segments where you operate. And not just the mega trends, but tell us exactly what you offer, what are your products and what's the focus area.

So I'm joined by 2 of our executive committee members here. So let me introduce them, Laurent Bataille, who leads France, important market; and Aamir Paul, who leads North America and, of course, U.S. within that also being an important market.

But for the purpose of this panel, please different hats, which is you're not speaking just for your specific countries, but for Schneider as a whole. And as we've heard earlier in the morning through from Peter and the others, the topic around net zero, the topic about what's the role of electrification, digitization, automation. And it always comes down to the topic of is it possible.

And really, one of the bottlenecks, and there have been recent research, a lot of them probably written by folks in this room as well around what that means for things like the grid. So let's start with the grid. Maybe I pass it to you, Laurent, and tell us that what really is the amount of investment that's actually required out there.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

It's pretty massive. And actually, you've heard from Peter, the impact of electrification across industry, building, transportation. Analysts see an acceleration of investment in the grid. In fact, Bloomberg New Energy Finance this year published a report announcing that the annual CapEx into grids would triple from a current \$275 billion to close to \$870 billion per annum in the 2040s. It's a pretty big investment. It goes towards grid expansion, of course, also retrofits. But up to 25% of that money is actually going to be for digitization of the grid.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

So when you're actually getting in front of customers, what is really top of their mind because these are like huge numbers. Practically, what is it that the customers are looking at?

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Their main concern, of course, is to make the grid smarter because that's really very important to have a more reliable and resilient grid. The reality is over the past decade, we've seen a multiplication of DER, distributed energy resources, connecting to the grid, particularly the distribution grid.

So there's a change of paradigm where historically, the grid is distributing centrally generated power to the point of consumption. But now with a lot of DER, you actually have more variants. You need a more dynamic grid that is actually bidirectional. Because the reality is you want to avoid the instability of the grid, grid violation scenarios. So what the grid operators actually need is the ability to have situational awareness and also orchestration capabilities in the world, a smarter grid.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Smart grid. So that's the buzzword. We've been hearing it for a while. Let's come back to Schneider. What can Schneider do to make a grid, a smart grid or a smarter grid?

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

I think one thing that is really unique is the full portfolio that we are bringing to the table here because when you want a smart grid, you actually need to activate 4 levels.

In the first one, and we've heard about it is to have the right data infrastructure. Grid operators have to collect, structure, contextualize, expose data in massive amounts, millions of data points coming from homogeneous sources, whether it's smart meters, the transmission grid information, some of their own assets.

And to do that, you need a data infrastructure that were for us, AVEVA PI system plays a key role because it enables the access, easy access, quick access to vast amounts of data, contextualized trustworthy, easy to leverage. So many of the grid operators in the world are already using AVEVA PI system, and it's really a foundational investment towards Smart Grid.

Now the second very important thing once you have this data infrastructure, is, of course, application software. That's where our digital grid portfolio really helps, particularly with 2 very important software. The first one is ADMS, Advanced Distribution Management System. The ADMS is really a

modeling and real-time measurement software that really enables to understand and have visibility into the functioning of the grid. So it gives you parameters about open points, close points, voltage level, current flow, but also grid violation.

And because the ADMS also manages the assets of the grid operators, it can create reconfiguration scenarios in case of outages and also optimization scenarios. So a very important piece of software.

The second one I'd like to highlight, DERMS, Distributed Energy Resources Management System, which really helps grid operators manage third-party assets on the grid. Very important, for instance, to actually give a zone of operation for the solar inverters that are plugged into the grid, so that you manage the rate of injection and you protect stability of the grid. So that's really the second [Peter] software application.

The third one is to transmit the commands and control, you need an automation layer. And we offer that with our medium voltage control products. So here, we are talking about remote terminal units and also medium voltage protection relays. Very important. They take the commands from the software and actually send them to the physical grid.

The fourth point, and we are very proud of that, is we are still bringing innovation to the smart grid through hardware. So I'll take the example of AirSeT. AirSeT innovates, which is our medium voltage switchgear. AirSeT innovates in 3 regards. First, it helps decarbonizing the grid by getting rid of SF₆ gas and replacing with air. Second, it really changes the way maintenance is done on the grid because it's full of sensors, and it's natively connected. So it can actually self measure its own health. But the third point, which is very important, is we've innovated on the core mechanism, the Compo drive, bringing new materials so that it has better endurance, which is very important, a smart grid will need to switch more frequently, and you need that endurance.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

That's pretty impressive. And I think there are some of these products outside in the demo as well, which can be seen. And though not in a grid application, there's a lot of these products, which are also somewhere in the infrastructure in a building like this. You spoke about customers which customers have actually deployed some of this for us. Do you want to share that?

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

So many grid operators of all sizes are actually using parts of that portfolio. Some of them actually the full stack. But we are very happy to co-innovate with many of the leading grid operators in the world, whether in Europe. So that could be Enel, E.ON, EDF, Iberdrola. In the U.S., that would be SDG&E, PG&E, we heard about; Duke and in Asia, a PEA in Thailand.

But I'd like to zoom on an example that we are very proud of, which is SAPN in South Australia. And why? Because they're actually operating a grid where there's a lot of solar injection, distributed solar. More than 40% of homes are equipped there with PV on the roof. And so you really have to preserve grid stability there.

We've deployed with SAPN, both our connected equipment and our automation products. But both ADMS and our DERMS solutions, and I think the outcomes are pretty impressive. Because today, SAPN really has an automated grid. So they are able, as an example, to actually reconfigure the grid in less than 60 seconds in case of outage. And at the same time, with DERMS and they had forecast, they're able to actually send controls to this myriad of solar inverters to manage the rate of injection onto the grid and pretty stable. And thanks to that, they're actually avoiding a lot of penalties.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Thank you very much for that, and it's good that you didn't pick an example from your home country. But I'm sure you have. Anyway, let's switch gears. I'm going to move to the next sort of end market topic. We've already discussed some of it earlier, and we'll be discussing some more, but

that's obviously data center. Aamir, I'll bring you in, of course, U.S. is big market for data centers. But again, for us, it's a global opportunity. Peter spoke about generative AI. Line it up for us what does that actually mean on the ground then?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Well, look, like we've said, we've been in this market for over 30 years. We are the undisputed leader in terms of our solutions capability and just the amount of solutions we've deployed. Just in 2022, with just the top 10 cloud and service providers, we help them deploy 5 gigawatts of capacity in 35 countries across 6 continents.

So with all that capability, we're saying that we've never seen something like AI and its impact, right? We've been doing this for that long. We've seen the first Web 1.0, Web 2.0. And cumulatively, we've never seen something like what we're seeing right now.

If you think about the training period of a large language model, you're looking at energy densities that are 10x greater. Then when you settle in on a GPU-based compute architecture, the density at the rack level is sustainably 4x greater. So we have this incredible challenge, where, on the one hand, we want speed to market. We want -- whoever can get these out first wins. We want to make these much more dense, much more stable, good actors in an unstable grid environment, better community actors from a water usage standpoint, and we want to optimize how we actually run them from a sustainability standpoint.

So these are competing goals. And one of the big differences that this is driving is the scale speed of the solution means that the idea that you're going to think about it 1 building at a time, one project at a time is a very 90s idea. It doesn't work anymore. You have to build this as a systemic multiyear architectural framework. And that's exactly what you heard from Nicole. That's what we're doing with Microsoft.

We're sitting down at the research level and planning because to get those competing variables right, make sure we not only build these capabilities but build them in a more sustainable way, we have to approach it differently. It's an end-to-end solution, and it requires a different kind of partnership model.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Very interesting. I think in terms of -- again, let's focus a bit on offers, and I'm sure there's some commonality of course, in terms of the core offers, which goes across end markets. But for data center specifically, you want to lay out what is it that we are doing for data center, offers-wise.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Look, the end-to-end cycle is a good way to think about this, right? So the first thing we want to do is we want to start with building a digital model. And from a construction process, that's using RIB. From an electrical simulation process, that is using ETAP. And by the way, that's becoming really important because where you physically put the data center is a function of power availability. And so that digital twin, that consumption model has to actually be something you sit down with the grid operator and say, this is the amount of load I want to bring into your environment. Can I actually make this work?

So having that digital twin is critical, the other reason it's so important is at least in developed markets, labor availability to actually do the construction is a real issue. So you have to start with that digital model. Then you get inside the facility. And one of the things that these data centers have to do is prepared for a world where the source input is going to be multi inputs, right? It's not just the utility, it's not just the diesel generators because that's a backup source, but not a clean one. It's all the other renewable and distributed energy sources.

So source management becomes really important. That's where our ASCO technologies that provide source management come into play. Then you come inside the building and you have the power distribution. So you have the medium voltage, low voltage distribution that provides power efficiently and in a dense way to that environment. Then you go to the core into the rack environment and the UPS is the power at the rack level

as well as well as the facility level. And then finally, you start thinking about how do we ensure all of this is monitored appropriately. So every asset has connectivity.

And as Caspar and Rob described, we can then bring that back into a monitoring layer. The reason this is so important is not only are you constrained by construction labor, you're constrained by operating labor because the best place is to build data centers are places where there's a lot of power, no people. So that's wonderful, but it's complicated to construct and it's complicated to operate. So the best way to operate it is to make sure that you need as few people on site as possible, but with the highest fidelity predictive analytics so you can come in and maintain that downtime environment that you're looking for. So it's that combination of things that we bring together.

And the thing I'll say that's really important is the art of construction of a data center used to be something people were proud of, right? They really care that this one I made this way and this one I made that way. We have to industrialize this. We are never going to get the outcomes and scale and speed and sustainability that we want if we do it the old way. So this industrialization of the process means it's the complete portfolio and the deliberate outcome that the customers care about, and Chris will talk a little bit more about that.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

No, sure. I think that's very interesting. Hopefully, that gives a good perspective to the audience here as well. Because we hear this question several times to say, look, there's offers which are out there with other people. But really, our position is that putting all of this together is real value. It's not our position, it's our customer's. It's customer's positions. That was going to be my question that, of course, we'll have from Chris. But that's something that is resonating with customers from your standpoint.

All right. So I think let's move on. And I think I'll get to the next topic, which is roughly -- and just for perspective, right, for the first 2 as well, what we do in grids. We've said publicly previously high single-digit exposure for Schneider. What we do for data center, we've mentioned earlier today, roughly 19% of our business that's based on orders at the end of last year. And we talk now about buildings, which is around 34% of our business. So again, I think we've mentioned this many times that it's absolutely critical if we need to get to net zero, that there has to be significant transformation in the building space. So our exposure is more on the nonresidential technical side. Take us through that, please, Laurent.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Yes, indeed. I mean buildings are -- I mean, they represent a pretty fragmented market, but a massive one. So when you have a look at CO2 emissions, they represent close to 37% of global emissions. So it's very key that we tackle them to reach net zero in 2050.

Here, of course, we're going to have to do 2 things. One is upgrade the full existing base of buildings by then. And the second one is make sure that new buildings are net zero in operations by design. There's a pretty good recipe to do that. And really, you have 3 levers to use in that case.

The first one, of course, is electrification. Electrify as much as possible the key loads of buildings. Typically, that's going to be HVAC and particularly heating. But also the transport infrastructure through the EV charging capacity in the buildings.

The second very important point is to deploy at massive scale, the energy management capabilities, so both automation and software to drive the technical system and energy system of buildings much more efficiently. And the third part of the recipe, if you can, depending on buildings, is to install production on site locally. So typically, there is going to be solar PV, potentially storage so that you increase the rate of self-consumption on site.

So interestingly enough, these 3 levels of perspective. They're deployable. And typically, they bring very good and short paybacks, certainly less than 10 years.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

To give us an example of (inaudible).

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Today is venue for that. But actually, one in Finland that we are pretty proud of. Citycon Lippulaiva, which is actually the second largest shopping center campus in Finland that was built in 2022. And they've done exactly that with our support. They've electrified their loads. So one of the big decision was, of course, HVAC. They went for heat pumps that are actually boosted by geothermal, so very efficient HVAC architecture there, of course, a full EV infrastructure.

The second important thing is they've actually deployed a pretty sophisticated energy management capacity in the building, both with distributed metering architecture so that they can really understand what's going on. And then our BMS, our building management system as the orchestration software for this infrastructure. The advantage is thanks to the BMS, we can actually manage the demands and the demand curve of the building, depending on time of the weather, the forecast on the production of electricity. So we create real flexibility.

And on top of that, of course, very good energy efficiency. This is a sophisticated complex building, welcoming a lot of visitors and still achieving an 84-kilowatt hour per year per square meter gross energy performance, which is really good.

The third point is they've actually installed solar PV, storage, and they have a full micro grid on site. And here, EcoStruxure microgrid adviser, one of our software is actually automating the key decision of knowing whether you tap into the electrons from the grid, from the storage or from the PV RA depending on the forecast and of course, the price of electricity. Thanks to this arbitration that is automated, the payback on this micro grid is going to be less than 5 years for this building. So very, very good performance.

Now it could actually turn to the U.S. We have a few very interesting showcases that are going to come live pretty soon. I mean one of them, of course, is the JPMorgan global headquarters. We are very proud to support JPMorgan there. It's going to be a 60-story skyscraper in New York. It's the first full electrical skyscraper there with net zero emissions in operations. So very impressive.

Another one is going to be JFK Terminal 1, which is a great gateway into New York City. And that will have actually the largest on-roof solar RA of the region with 7.7 megawatts of solar. And actually, the micro grid that helps the airport be very resilient because it will be able to fully operate off grid in case of power disruption. So you see good examples here.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

I think those are great examples, and I know that we have several more. I think for the new build, it's a no-brainer, right? You put all the technology. What about the existing stock and the ability to modernize retrofit? Maybe you want to give us some examples and opportunity there.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

And you're right to point out the challenge of retrofits because that's going to have a very big impact on the market. That's where you have very big masses. It's very interesting to see that, for instance, hospitals, which are fairly critical and complex building. 70% of them have pretty extensive upgrades or expansion programs in those 3 coming years. So there's a real opportunity here to really upgrade the existing systems.

And in that regard, I'll take an example closer to home actually in France, in the region of mass, it's a hospital, I would say, a typical hospital that went through a difficult event, actually, a pretty bad blackout and outage. And they've discovered that their electrical system over the years have kind of drifted and was not up to par with the resilience expectation you need in such critical buildings.

So we've worked with them in order to upgrade their electrical distribution system, bringing really 3 different values. I mean the first one is, of course, resilience. So we've changed the transformers, the medium voltage switchgear, the low-voltage switch boards. And now they have a very solid and robust electrical architecture and best-in-class equipment, making sure in case of outage, they would be able to recover very fast and that any fault in the energy distribution is very, very contained. Now the second value here is asset management. Again, we've talked about the sensors and the native connectivity of this equipment, is the same here, meaning there's a self assessment of the electrical infrastructure, enabling remote maintenance and of course giving the ability to anticipate potential problems.

And the third thing is with the right [metering] infrastructure, there's now good visibility on potential energy waste and much better energy efficiency in this hospital.

So I think what it brings back to the core is when you want to decarbonize and have resilient infrastructure, taking care of the energy power chain is fundamental.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Now I think several people in the room, because you have been long term shareholders, would remember one of our earlier Capital Market's Days, where we actually had Penn Med. And just a reminder that health care is an important end market segment for us as well, not the only one.

But I think the other point also -- just -- it came to my mind that we've obviously deployed a lot of this in our own network as well, intensity, which is the other example in France, which is a flagship. And I think at the end of last year, we had over 75 or 77 net zero sort of offices and buildings of Schneider itself. Maybe we'll switch gears now and get into -- we've spoken about grid and data center and buildings.

Let's talk about more of the industrial segments. And let me start by -- in this area, we haven't been focused on automotive like several of our customers for -- in the past. But now when we look at the new energy landscape, the sort of the landscape is changing. So maybe Aamir, over to you. What is our play when it comes to EVs, for instance, from an industrial standpoint?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Well, look, the battery market is really incredibly exciting. I was going to say it's blowing up, but that doesn't work too well in the battery market context. So let's just go with terribly exciting. And the stats are astonishing. By 2030, the total market outlet will triple.

The battery market has obviously got a use case in EV, but also those batteries are being deployed in homes and for backup systems across different application sets like buildings. This building is ultimately going to be an example of that as well.

It's also getting much more regionalized. So you see real policy conditions in Europe and North America saying "We want to have it locally produced." So estimates put that 6x increase in European and North American battery production. And in China, which is, by a long way, the world leader today, even that market is going to double.

So there's growth pretty much everywhere. And one of the things we see in this market is a real, again, combination of speed and flexibility. So on the one hand, we want to build -- our customers want to build these massive battery facilities and they want time to market.

But at the same time, they know that in Europe, there are different regulations on recyclability, there are different regulations and traceability. Every sovereign entity is putting in different sort of environmental controls on it in how they want to trace and recycle this infrastructure.

Second, the unit economics have to get a lot better. The cost of a battery and the power it provides has to come down. And the chemistry and the physical design will change. So on the one hand, you have this variable that says, "Let's go invest billions of dollars in a large facility." On the other hand, you have to make sure you're future-proofing it in railways as your technology and designs change.

And that's where the approach we take is we have to start with open automation. You have to start with this mindset that you're going to be able to bring in different components. And EcoStruxure, Automation Expert, which Barbara will talk about later, is a core element of making that work.

The other element is the battery process is much more energy-intensive, right? The entire industry, whether it's automotive or the production of this, is moving towards delivering an electrical outcome. So various parts of the process require much more energy intensity, power quality management -- power and quality management.

And again, the interfaces with the utilities as you build these plants, again, their massive impact to the grid from a load standpoint. And so converging energy management information and automation information to a single platform.

On the automation side, you have our PLC solutions, our drive solutions, our motion solutions; on the energy management side, our power quality and management solutions. And bringing all that together using a AVEVA [USC] solution is how you build at scale today and have the flexibility to adapt for tomorrow.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

No, I think -- and just to remind of this audience as well that when you look at the industrial and infrastructure end markets, that's where you have the natural sort of cross-sell between both the businesses that we have here.

You mentioned energy intensity, electro-intensive nature, right? That's strategically the sort of end-market segments that we've been focused on. So let's leave aside the new energy for a moment but just come back to the key electro-intensive heavy industries, and give us a sense of that.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Sure. Look, we work across a lot of these energy and chemicals, metal mining and minerals, increasingly hydrogen. North America, for example, is investing massive in hydrogen hubs, green hydrogen hubs. And you see that happening in Europe as well. And you saw an example again from the AVEVA team on that.

So I think across all of these, there are a couple of elements that customers are trying to do. They're trying to decarbonize their operations. They're trying to drive productivity. They need more automation, and they're also working on a workforce transition.

One of the really interesting takeaways during the COVID period was there was a distinct ability to measure. We ran sort of a universal AB test of companies with the digital backbone, as Casper and Rob described, and companies without.

And companies that had the digital backbone, were able to get the right technical resources on the right problem at the right time regardless of physically where they were because everyone had a common understanding of the operation of the data. Where that didn't exist, you saw real degradation in secondary facilities.

So in addition to everything I talked about in resilience, there's a big push to build this digital backbone in these facilities. Again, we believe in open automation and the convergence of energy management and automation data, and our solution here is EcoStruxure power and process.

And where we've deployed that with our customers, again, supported with the AVEVA backbone, we've seen 10% reduction in process energy use, 15% reduction in unplanned downtime. And these are incredibly important statistics to these customers.

They have the ability now to [introduce] distributed energy, which is a big part of their decarbonization focus. And they have a platform to start doing job training because as the age transition happens in their workforce, the new people coming in need to be trained in the digital environment. That's the only environment they know.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

What about lighter industries, more discrete light industries?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Yes. So again, look, everyone needs to be agile, faster. The shocks of the last few years and COVID have helped us really rethink how we operate our facilities. And this is a great example because I think we started by drinking our own champagne. We have a different permutation of that in the U.S., but let's go with drinking our own champagne. And the drinking our own champagne was we have 100 facilities, across -- more than 100 facilities across Schneider's own manufacturing footprint.

And so we deployed our technologies to see how we can make them more efficient, more sustainable and drive more output at a lower unit cost. Lots of examples, but one I'll focus on is Lexington, Kentucky. Peter talked about the fact that 4 out of 10 homes in America have our product content in them. Well, 9,000 of those [power boards] and safety switches per day are made in Lexington. It's a 64-year-old facility.

And we deployed -- actually, at a bottoms-up level, we gave the operating team access to AVEVA technologies, so the AVEVA operations control, insights, web studio, a lot of our EcoStruxure set and obviously, our latest industrial automation tool set.

Over a period of 5 years, they have deployed these technologies where today, Lexington, Kentucky is a World Economic Forum lighthouse for automation and a World Economic Forum lighthouse for sustainability. That facility has reduced its carbon footprint by [30%], it's energy usage by 26%. It's water usage by 20%. And my personal favorite, the use of paper in the facility has gone down by 90% because we're running it as a digital asset. It's a 64-year-old facility.

So the point is, just like buildings, the biggest gains aren't just going to happen in new builds, they are going to happen in bringing these technologies in an open way, not in the closed architectures of yesterday's technologies but in an open way, to existing facilities. And we've demonstrated that we can do that. 5, actually, of our 100 facilities are now World Economic Forum lighthouses, and more are in the pipeline.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Yes. No, super proud of that. Any other example maybe on the...

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Yes, sticking with the food theme, a European chocolate manufacturer. So this manufacturer is known for the precision of their packaging, the look and feel, the fact that they have seasonal varieties and their commitment to sustainability. And this is a really interesting example in terms of how customers approach Schneider.

So the first conversation here didn't start out with the solution we provided. It started out with a common view of values around sustainability. They saw what we were doing in this space and with their own ambitions as a company were as really compatible. And that's where the conversation began.

And from there, the problem they brought to us was they wanted to change to a much more recyclable packaging solution. But at the same time, they wanted the flexibility, again, with seasonal variations, just the velocity of what they're doing, 6,000 pieces a minute in their production line, to have the ability to say, "Look, we want this to be very modular. We want it not to be sort of a fixed architecture." And so we literally sat down with them with a clean sheet of paper and said, "What does this future packaging solution look like?"

We deployed our high-performance motion solutions. Again, we've deployed our EcoStruxure technologies, a lot of our industrial automation content. And we built them something not just with us, but actually with the machine builders and OEMs involved. That was a first in both the modularity and flexibility it offers them and the ability to take that digital twin and that [actual] line and put it in existing facilities.

So first packaging solution, bill for recycled packaging solutions for this chocolate provider. And there are many more examples like that, where there's a particular part of the process that they want to reimagine. And because we have an open architecture, we can do that and fits in seamlessly with their existing footprint.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Well, I see that we're probably coming close to the end, but I do definitely want to use the opportunity to get your operational hats back on for just a couple of minutes. And what's pretty clear is that there's a breadth of offer out there and good value proposition.

How does all of this come together from a commercial standpoint or a sales standpoint? I mean that's a question my team and I get often as well. So maybe just a quick perspective from both of you on that.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Yes. So I'll take really an end-user coverage approach here. I mean it's a model that we've worked upon over the past few years. But certainly, the idea of exposing this broad solution portfolio to end-users is absolutely key.

And the way we go about that in the country organization is really to make sure we have strong collaboration between our sales team at the service of the client with particularly, I would say, teams that are focused on the accounts, typically with the strong knowledge of the segment and the application of the clients; and with the support of technical experts that we would call solution architects and at the same time, specialist salespeople, so that we can really make sure these teams think holistically end to end about the problems and the solutions that we can bring and then leverage the expertise of the experts.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Aamir, anything to add?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Obviously, I agree with that. And I think it works very cohesively with our partner network because as we build this segment expertise and solve customer problems, once we standardize them, we then get to leverage that immense partner network Peter talked about. So we have 45,000 system integrators and developers. We have over 600,000 channel partners and delivery personnel that we can tap into.

So our job is to make it simple, make it easy to deploy and then help it scale it. And that's where the partner network that -- it's not something you build overnight. That's something we've built over 100 years, as you heard [Kathy] talk about. And that gives us the ability to scale a new technology into a market much faster than anybody else. And so it's a combination of both these things together that really makes the difference.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

And we obviously have a Q&A session later, so -- but I can't resist one question because you're representing North America, and we just get these questions all the time. A lot of attention with regards to the IRA and the incentives, et cetera. So do you want to tell us what that means for us -- for you?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Look, it's creating an unbelievable investment environment. As a percentage of GDP, it's the largest investment the U.S. has made in infrastructure since the '50s. And I think there are a couple of areas where there's just an unbelievable amount of money going in. And then the question is, how quickly will we see it materialize in our pipeline?

So semiconductors; clearly, batteries; clearly, hydrogen hubs is a big investment, preparing for the energy transition from a transport standpoint, both airports, bus hubs and consumer transportation in terms of EV and building the right accessible EV infrastructure, incentives to prosumers.

So the way it's showing up for us right now is the deal sizes are getting larger. Our pipeline is much bigger in terms of mega deals. Now those tend to move a little bit slower. And the way the funding structure works, it goes from the federal government to the states, and the states then allocated to the municipalities. But we're seeing very exciting outcomes in our pipeline. We're following these mega projects very closely, and we expect to see that, just on that phase, to continue through the next few years.

And the last thing I'll say is I get a lot of questions about politics and what will happen in a different administration. One, generally speaking, politicians like spending money, so we think that will continue in any scenario. Second, resilience requirements are true everywhere. Grid resilience is still a problem, right? Weather events are driving it. Last year, weather issues cost U.S. business \$150 billion due to downtime.

So we think these investments are the right thing to do. There will always be the push and pull of politics, but generally, we see it proceeding and proceeding at a very heavy [club].

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

No, that's great to hear. Maybe last one for you. Laurent, we're a fantastic stadium today, sports stadium. Next year, I think all eyes are on your country for the Olympics.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Yes. Indeed, we just went out of the Rugby World Cup. A few months away from the Olympics.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

On a more sort of selfish note, do you have some nice CMD venues for us for the next time?

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

Of course, we could talk about stadiums. I think the Olympics are happening on the backdrop of a pretty significant infrastructure investment in the Paris area called the Grand Prix. And so whether we're in a stadium, in a building, what is certain is you're probably going to use some of these new transportation infrastructure that is either powered or protected or automated by Schneider Electric, very high chances.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. No. Well, thank you very much for that. I think I mentioned earlier in the day that we'd have a break now at 10:30. I think we're going to just push it by 15 minutes. I want to thank both of you for your time and honest discussion. And I'd also like to use the opportunity, Aamir, you stay on the stage, to welcome our special guest, Chris. Thank you for being with us. It's all yours.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

All right, Chris. Well, thank you very much for making the trip across the pond. I really appreciate it. You've been in the industry for a while, founder and now scaling up Compass Datacenters. Just start there, tell us your story and the story of Compass and a little bit about the company.

Chris Crosby - - Founder & CEO of Compass Datacenters

Sure. So I got in the industry right after the telecom bust and at the nascent stages of it, was part of a few companies, including Digital Realty Trust and then started Compass around 12 years ago. So we've been on a growth [clip]. Last several years, we're 100%, over 100%, and this year is over 300% growth. Seen about \$8.5 billion worth of development that we're doing just in terms of scale.

And the AI boom, I've noticed a lot of people taking notes in here, you won't be doing that very soon, you'll be using a tool, and it will do it for you. So it's going to be part of all of our lives. There's no killer app. It just makes everything a little bit more better.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

I'm always struck, Chris, by -- in that I've known you for at least 10 years now, and your stress management, my stress management have clearly led to very different outcomes. So there's a lot to learn. So we've talked about our view of the challenges in the data center. You're actually out there building them, building them at an unbelievable [clip]. Like what are the things you're facing? What are the problems you're running into?

Chris Crosby - - Founder & CEO of Compass Datacenters

Having come originally from a manufacturing background, design and construction has always been very odd to me, the way that's done, all the snowflakes that you mentioned earlier. And so Schneider has been with us on the journey of how we're industrializing and really creating repetition.

We've created the concept of mass customization, where we can match the topologies that our clients need but from the same product. And we've enjoyed that development process. It's taken a lot of R&D. It's taken a long time to get there. But today, 80% -- 70%, going to 80%, of our cost shows up on a truck, including the building itself. And that allows for speed, safety, sustainability and really helps us out [over time].

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

I want to come back to sustainability, but let me expand on the point Chris just made, right? With [Pankaj's] team, who leads all of our technology development in the space, we actually sit down with Compass and plan their technology footprint 3 years ahead of time.

So we're looking at everything from what it takes to get that data center online in terms of the construction labor and how can we take more steps out and do them in a prefab facility, so that the on-site time to market is compressed to how do we monitor and make's sure that we predictively prevent failures to the serviceability of the environment.

So it's an entirely different relationship. It's not a relationship for a project or a building. It's a relationship for a company and its strategy. And I think your vision in that has really been inspiring.

So talk a little bit about sustainability. Your focus really on Scope 3 a lot. You've done incredible things. I think you're almost zero water in terms of cooling. So say more about what you're doing in that space.

Chris Crosby -- Founder & CEO of Compass Datacenters

Yes. Our benchmark versus industry, we're about 19% less on emissions in what we're doing. We're continually trying to innovate there. But one of the core focuses is elimination of waste, obviously, the more we can do in a factory environment and prefabricate and then bring to site versus doing things on site. But innovation comes in many ways, but it's incremental from a Compass approach. So it's continuous improving -- continuously improving one step at a time.

I think there's no panacea for sustainability. It's just do -- continually do the right thing. Built-to-last is a big component of what we do. And that mentality of time, which unfortunately is in part of Scope 1, 2 and 3, I think it should be; and how long things last, I think, is very important that durability is very important.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Yes and one of the other things Compass is doing is using VPP solutions, so their virtual power plant to the utilities. So they're actually a good actor in the community where the utility needs to shed load, the data centers set up in a way that can actually be a good actor of that environment.

There is one last thing, isn't there? So everything we've talked about and the relationship we've had has been fantastic. But let's put some numbers to this. So we're announcing the next phase of our growth together. And I'm so glad you're here to share this. So why don't you tell the audience what we're working on?

Chris Crosby -- Founder & CEO of Compass Datacenters

Yes. So \$3 billion multiyear agreement for supply for power center units. And the tip-to-tail nature of things is very important, but from the R&D all the way through to the supply chain analysis that we do, multiple lines in factories and then bringing in predictive analytics and the first of its kind service agreement as well, that's included within that.

Think of it as an automotive model being brought to the data center environment in terms of Schneider being able to do predictive analytics, see what needs to get fixed and truck roll when it's necessary, which we expect to be very high margin for them while it's lower cost for us, which is the whole concept behind the closely coupled supply chain.

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Well, we appreciate your trust. I often describe you as the Henry Ford of data center industry. So thank you for bringing the rational scalability the industry needs.

Chris Crosby -- Founder & CEO of Compass Datacenters

Awesome. Thanks so much.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Well, thank you for staying on for an extra 8 minutes. We wanted to announce the \$3 billion before we broke for the break. So we will take a break now, and we will come back in about 20 minutes -- 22 minutes. We're mindful because there's the web audience as well, so there's some content for you to watch while we take a break here. So back in about a little over 20 minutes at 11 a.m. GMT. Thank you.

(Break)

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. We're back for another panel. This one is going to be shorter than the previous one. I'm happy to introduce the two guests here. Most of you will already know them, the leaders of our 2 businesses; Barbara Frei, who is a leading Industry Automation; and Olivier Blum for Energy Management.

The idea behind this particular panel was, in some ways, linking it to what was said earlier in the morning by Peter around the focus on R&D, on innovation. And as he mentioned, and Hilary will give more details, the idea is to step-up on the R&D. That's the message we had the past -- starting a few years ago already. So the focus would be around innovation and how innovation enables growth for the company.

And maybe, Olivier, start with you. How is it -- because business is -- both of you, in fact, are responsible for the R&D road map. How, for the entire company, do we think about innovation, about new offer creation, new product creation?

Olivier Blum - Schneider Electric S.E. - EVP of Energy Management Business

Yes, sure. I mean, so first of all, just for you to know, we have about 12,000 R&D engineers everywhere in the world. And I think you've seen a lot since this morning. And to deliver basically all the solutions that have been presented by our colleagues, it's super important that we are more and more aligned everywhere in the world the way we do R&D.

And as you said, I lead Energy Management, Barbara lead [IA]. We want really to have a common process to make sure we can deliver bricks, which are compatible that speak to each other.

One of the key principles we tried to implement everywhere in the world, number 1, is what we call agility and [multi-hub], the two goes together for us. There was a time at Schneider, and I've been in this company for many years, where we used to take 10 years to develop a new switchgear. That does not work anymore in the world of today.

So agile for us, it's about being much faster to the market, being able to test our market assumption and being able to stop projects, which is very, very important to us. And we'll discuss later about multi-hub. Multi-hub is being close to the market, having a very strong customer intimacy because even if we can develop global platform, what we would do in different parts of the world, we will be different.

So that's really multi-hub and agile first, which is really in our [key] principles. So only, we have a set of principles, which are very, very important because we have learned year after year that we can do [highly] by chance.

So in every single project, for instance, decarbonization is paramount. What are the scope 3 emissions, upstream, downstream of a new offer we bring to the market? What are the environmental data that we should provide to our customers? That's not something you can think at the end of the project. So that's really, really important.

The second point, which is very important, is serviceability. We've talked about our ambition, a big part of our business today around services. We need to design products, which are serviceable by design at the origin when we launched them in the market.

And last not the least, which has been probably the most important transformation in the past year, is native connectivity, and we'll discuss later about what we have been doing. But to be able to deliver all those solutions, we need to be really digital native in terms of connectivity. So that's very, very important.

And the last point that I would like also to bring to the discussion in R&D, we like also to be very much focused on what we deliver in terms of performance. So these are probably the different metrics that we are using. But the vitality index of our offer is very important. But also, comparing systematically how we perform versus our business case is important, like you would do in M&A, you have a business case you want to deliver.

So we have been with [Barbara] those principle of being very, very strict in terms of performance. R&D is not an exact science. You have a lot of unpredictability in the process, but we want to make sure we always monitor the performance.

And last is really prioritization. Peter said it, we are in an important growth cycle. We have massive opportunity in front of us, and we have really to be very selective and to prioritize where we want to spend our money in the next cycle.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Yes. That's quite clear. And all the principles that you spoke about obviously applies to both businesses over there. But Barbara, maybe a question to you, still different product sets, et cetera. What -- is there some level of commonality at all when it comes to R&D between the 2 businesses?

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

There is quite some commonality. Let me talk about integration. It's very much EcoStruxure, that's our common digital backbone, where we want to provide to the customer the same look and feel, the same experience. But then also, we look at standards on cybersecurity that they are held in the same way, the communication protocols facilitating, also the integration of our connected products that just Olivier was mentioning.

So for instance, the Altivar process [variable speed] drive that you can afterwards touch outside is natively integrated into the edge layer called power monitoring expert. And with this approach, you can really have a very granular visibility into the plant, what is the energy consumption of the different motors, and how can you really optimize it? So this is really a big lever in that sense.

Then, of course, sustainability. That is really at the core. Here, we are looking in the R&D teams to collaborate regarding EcoDesign rules, what does it mean to be EcoDesign? All the green material initiatives, so we need low-carbon metals, steel, copper. We also need recycled plastics, which are fulfilling the specification of normal plastic. And this we all do together.

And then, of course, what Aamir was mentioning very strongly is really when we combine our portfolio. So EcoStruxure Power process is one of those offers, where we have, in a common R&D work, integrated the controls. And also on top of it, with AVEVA software and ETAP, we can optimize really energy-intensive end-users and bring to them the savings. So this 10% to 15% that Aamir mentioned are a reality.

So we have a customer, a metals customer in Austria, and they wanted to optimize their cold mill lines, just not only efficiency of energy, but also on productivity, and we achieved really good numbers here. So 10% to 15% reduction in energy consumption by bringing this combined portfolio, which is heavily integrated to his plant.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Yes. And earlier this morning, of course, we saw the sort of size and scale at which our company is operating. So if we link that back with innovation, and that obviously is going back in the past, can you both talk about some of, let's say, the past innovations or flagship world-leading franchises that we have, just for everyone to be able to link that with the kind of numbers that we've been able to deliver? Maybe Olivier first?

Olivier Blum - Schneider Electric S.E. - EVP of Energy Management Business

Yes, sure, sure. So in Energy Management, of course, we have created a massive position in electrical distribution, in Low Voltage and Medium Voltage, peter mentioned it this morning. In Low Voltage, overall, we are 2x bigger than the [same] player in the market..

Low Voltage, at one point of time, a long time ago, was just hardware that you have somewhere in your home, in buildings and so on and so forth. But when you step back, this franchise we have built is the place everywhere in the world where you have access to the energy data.

So the fact that we have been able to build this massive franchise everywhere, like Aamir said, by the way, through partners, which creates a big difference in the market because we sell all those products, this is installed by all our partners everywhere in the world; it has given us a [fantastic] position in the market, for sure, that we have leveraged for many years.

Now what have we done differently in the past few years was to make sure we don't only deliver product hardware and equipment to our customer, but more and more making sure that they are connectable, that you can connect them, you can extract data.

And this data, of course, give you access to all your energy consumption, to all your energy data, which is in a world where you need basically to become net zero, is basically what you have to access as a customer. And you imagine the type of opportunities that give you [tomorrow] if you want to sell, for instance, more digital services to your customers.

So those kind of positions we have built in the past, those Low Voltage franchise, Medium franchise, are unique position. And sometimes, we get the question, are we going to stop our product business? No way because that's the foundation of our company and everything we want to do when it comes to sustainability and [digitalization].

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

That's certainly not a question that we are getting from the investors, and I think everybody loves that piece. But as you said, there's innovation in terms of what more value can be added. Barbara, on your side?

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Yes. I would like to start in that sense from the Invensys acquisition that within 2014. We got 2 very good brands on board, Foxboro and Triconex, successful systems by itself and specifically having a leading position in process safety..

Out of this, then we also developed new offerings like the hybrid DCS. So we took the [Siteco] and combined it with our PLCs, the [Motion N580]. And this is a great success in emerging markets like India, China, the EMEA, but also in France and U.S., where we really have double-digit growth in bringing and deploying this solution to the market.

And then I would also like to mention the AVEVA system platform, which came out of the Invensys acquisition, which is an operations management interface. And I would say, with this software, we are uniquely positioned in conjunction with the Schneider Electric solution to calculate the real cost of a unit produced.

So if you really want to tell your customer, "Look, this is the energy consumption, this is the real cost which is related to this product," then you can do this by applying AVEVA together with our [PME] solutions, and it provides you the real data here. And I think that's quite powerful.

And then, of course, I like to brag about our motor management. I think we are #1 in the world in motor management. It starts that we take really the expert services on how to design a motor application, also advanced motor control, which means we sell a soft starter or we sell a variable speed drive. And then you also need to protect it, and you protect it with a contactor, and you do your integration into the control system.

And last but not least, you also need to do asset management on it, and that's also where we have software solutions available. So this business has tripled over the last 15 years. And with the current more use of electricity, this business will continue to accelerate.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

And Olivier, you may have mentioned of multi-hub, and we heard it earlier today, we've spoken about it for a while. What does that mean for R&D?

Olivier Blum - Schneider Electric S.E. - EVP of Energy Management Business

Well, look, it's super important, and I think multi-hub is really a unique differentiation we have at Schneider because what it means for us, even if -- in R&D, we always like to have global strategy, global innovation and global bricks for platforming. What is important for us, again, is to be very, very fast and close to the market.

So what does it mean in R&D? It means that in every major part of the world, we want to have a complete set of capability from marketing to R&D, to industrialization. And of course, we are doing that together with our colleagues the operation and our colleagues from supply chain.

But that gives us a tremendous advantage because in every single R&D program, we have the capability to be as close as the market. So we cannot do it everywhere in the world, let's make it clear.

But in the past, I wanted to say, decade, but actually in the past 20 years, we have decided really to have a very strong multi-hub focus on North America as a European company, North America was a very big priority for us; in China and lately in India. So these are basically what we call the four biggest hubs of Schneider, where we make sure that we have a very dedicated approach to those markets.

And if you look at North America, which is, for instance, a [nimble] market in electrical distribution, it makes a lot of sense to have decision from an R&D standpoint, which are made in North America, for North America. It was not the case 20 years at Schneider, I think. And I can tell you, it's still not the case in many companies today.

Now if I take with my colleague in India and China, I can tell you from now in this standpoint, there are a lot of things that we need end to end in China, from the hardware part to the connectivity, to the services opportunity. We cannot replicate the same story.

And the last point that mention that we don't discuss probably enough, what has been one of the big benefits is about attracting and retaining the best people in the market because R&D people in different parts in the world, they don't want to be a subcontractor in China for corporate decisions, which are made in the U.S. or in France and vice versa.

By the way, I can put it in all the order, to retain the best R&D engineer in the world. You need to give them a job where they feel accountable [in the] program. They don't want to be just a subcontractor from a global corporate somewhere else in the world.

So that multi-hub model, which is something that we are working together with my colleagues on the executive committee, is making a huge difference in terms of tight market, customer centricity and also people retention.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Let's -- we've spoken about the past, we've spoken about the great franchises we already have, and we're building upon. Now if we are stepping up as we look, what are we looking forward to, let's say, over the next 5 years or so? Where is the money getting deployed? And what's the focus area for both of you?

Olivier Blum - Schneider Electric S.E. - EVP of Energy Management Business

Well, look, on the Energy Management side, if I continue on the example I've taken on the franchise, again, we want to continue to develop organically a very important market share in all our product and equipment business because, again, as I said, this is; a foundation of all our EcoStruxure strategy, being always connected.

The next big reason is definitely on the digital side because once you sit on this superb and unique positioning in the market is how much more you can deliver to your customer. And you heard from the CEO of Compass, it's about how I can, for instance, monitor really my assets once they have been installed. So we are providing a lot of solutions, which are more and more digital, digital services for monitoring, for alarming, for condition-based maintenance. We call that EcoCare.

So EcoCare is the next big franchise that we want to develop to provide digital services to our customers that creates stickiness with our customers, that give you opportunity over time to upsell new services, new solution to your customer. And of course, from a financial return, it's all about recurring revenues, and we love recurring revenues at Schneider.

So of course, we want to do it more and more for our new business. But there is an opportunity also for retrofit, for more modernization on all installations, where we can come install sensors and again develop the same value prop for our customers. So that's really the next bigger reason for energy management.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Barbara?

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

So it's clearly software-defined open automation, which really provides you greater flexibility and resilience. And it's a different approach to automation compared to the propriety systems, which are now in the market.

And this is not something that we invented at Schneider Electric to say "Now let's do that". [It was really] the customers, like energy customers, customers in infrastructure, coming to us and say, "Hey, we want to have open automation because it gives us more flexibility in the way we work and in the way we want to optimize our plant."

Now what are the important elements here? First of all, open automation means you detach the software from the hardware. So you can, in principle, round the software on the hardware that you think is appropriate in a certain setup, and it's not any more natively linked to each other.

And what is another benefit then is that you can also detach the innovation cycle. So you can say, "Hey, I can bring more software versions to the market independent of the hardware and add more functionalities software defined," which is, of course, a big accelerator for innovation.

The second important point is also that you will see it outside and you saw it also in Aamir's explanation, there are many customers confronted, they come to a plant and there is many different systems installed there just because there is OEM 1, 2, 3, and there is somebody who've made the building automation and so on.

Now to orchestrate all these together, open automation is the right approach. And then furthermore, with the big data -- a lot of big data is happening on the edge layer. And how to bring this data into the IT layer and start to make the analytics alongside with machine learning and other tools, for this also, open automation is the right approach.

Now in Schneider Electric, we launched our first product offering based open automation [2021]. It's called Automation Expert. And you will see it outside in the booth. In the afternoon, we do a bit more explanation about it.

But to make it now more tangible, let me give you two examples. You have pumping stations in water applications, which are quite simple. And in that sense, the hardware architecture can be really streamlined so you don't need an additional control.

What you do? You run the control on the variable speed drives, which are anyhow installed in this pumping station, which gives you a benefit in the sense of saving hardware here, but none -- nevertheless, having more functionalities.

The second example is that in wastewater treatment plant, the operator can run directly, in principle, analytics by having the data real-time available. And why does he need this? There is a lot of chemistry involved in the process. And when he wants to minimize the use of chemistry and therefore, also the impact on the environment, he needs this data to contently optimize.

And also here, an easy integration with Automation Expert is given to make this. So overall, a big benefit to the world, but it's disruptive because we are shaking the old structure on how you do automation in the industrial world.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Thanks. So there's a clear road map. And of course, we've shared some of it today. I'm mindful of time, and -- but I do also want to, even on this panel, probably shift gears a little bit.

Back to just the differentiation of the uniqueness, and I think we've spoken about it through the course of the day to day. But as the leaders of each of the businesses, how do you see the uniqueness in your respective businesses and the collaboration between the two? And how that adds -- the one plus one is more than -- you know what my question is.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

For sure.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

We prepared it well.

Laurent Bataille - Schneider Electric S.E. - Executive Vice-President of France Operations

It's fairly simple and back to the beginning of the day, which was a presentation of Peter, at a time where really the climate transition is top of the agenda, what we have been doing at Schneider is very simple. We say we want to be a digital partner for efficiency and [sustainability]. What does it mean?

We have set up really a unique portfolio of solutions, which are a combination of hardware, equipment, services, consulting capabilities, software, where we can really support large, medium and small customers everywhere in the world to go through their decarbonization journey.

And you've seen what we've presented today. What we call strategize, digitize, decarbonize, it's fairly simple. We have created unique consulting capability to be able to start the process early on with our customer to help them to define their strategy. By the way, we've just announced the acquisition of EcoAct that complete nicely the capabilities that we have in consulting.

Second thing is about data. We know that 80% of our CO2 emission is related to energy. How we help our customers to monitor their data? And last but not the least, when we say decarbonize, it's about you leveraging the entire portfolio of Schneider Electric that we have built over so many years to help a customer in building, in data center, in grid and all the other example we presented before to go through their decarbonization journey.

What we call decarbonization journey is basically executing their road map to make sure they can achieve their goals. And when I say that, I don't speak on behalf of Energy Management, I speak on behalf of Schneider because, of course, Energy Management will bring one part, but Barbara will bring one part of the solution when it comes to digitize and decarbonize. Same with Caspar with all our software solutions that we have.

So this is where we create a unique combination of solution. And I don't see too many players in the market who could claim the same really as of today. So that's, I think, our unique differentiation.

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Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Anything to add to that, Barbara?

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Yes, I can only add here a very concrete example. So it's -- let's take the Metro of Barcelona. It was on the slide that Peter presented in the beginning.

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So it's a customer since 20 years. For many years, it was a customer for medium-voltage switchgears, but then they came to us and said, "Now we really want to manage centrally our energy consumption at the facilities." And the anti point in the beginning was our PLCs to do that because they are known for their strength in infrastructure. But then we extended it with the network simulation from [ETAP] and then the optimization from AVEVA.

And now, we really were able to deliver a relatively high scope into this application. And I think, that's the way to go, where we can really position our unique portfolio, building on our long-lasting, let's say, customer relationship and then build on the [sea] level to get in more software solutions, more services.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. No, very clear. I think we're getting to the end of the time, all of the people, at least in the room, there's more chances to interact with both of you outside in the demo area, where we'll be talking about exactly these one -- these topics in more detail.

At this stage, I thank both of you. I think Olivier and myself will come off stage. And Barbara, I will let you introduce our very special guest the next panel.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Yes. I would really like to invite, please come up, 2 leaders representing companies which are innovating and which are having an impact in different ways. And I'm really happy to welcome Anne Le Guennec. She's the Senior Executive Vice President for Worldwide Water Technologies in Veolia. And Veolia is really the market leader in water services.

And then we have James Lloyd-Jones. He is the CEO and Founder of Jones Food Company, which is the #1 in vertical farming in the U.K. So please take a seat. Is it okay? It is a bit.

So in principle, we are all looking at the same megatrends. And what we also heard from Peter, this morning, urbanization is one of these megatrends. And when we look at the 2050 projection, 2/3 of the population live in an urban environment, in a city. This gives, of course, very challenges to the water supply and also, of course, to the nutrition.

So first question to you, James, also because we are here in [Tottenham]. And 18 months ago, you went with us to Tottenham and you are watching the grass grow , so to say. Can you tell us what this has to do with vertical farming. And what is the mission of your company?

James Lloyd-Jones - Founder & CEO Jones Food Company

Well, first, it was nice to come to [Tottenham] when it was totally empty and the -- it was where the pitch goes into the car park and how they're keeping it at the top performance, pitch, with the lighting and the watering whilst then you can do concerts or the NFL.

So what does that have to do with vertical farming? Well, it was a fantastic [turf] to round, but there is similarities in just, firstly, how you grow crop. We grow crop in multilayers in racks using light, large environment, HVAC systems and water delivery to get the nutrient-rich water to the plants for it to take up similar to the pitch that rolls in and out.

So -- but what we're doing and why we're doing it is we wanted to create or I wanted to create when we were starting this new agricultural assets effectively, where we can ensure that you get so much higher nutritional value into your food, but by using far less water and far less and energy and light.

I don't -- I always thought it's silly that our food has a greater holiday before we eat it with the amount of imports. So by building something that's sustainable machine and trying to get it standardized as possible to be able to work in both food, pharma and cosmetic was the idea. But we haven't got on to the football pitches quite yet as a...

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

But out -- of course, where do you build those vertical farms?

James Lloyd-Jones -- Founder & CEO Jones Food Company

So our first one was in Scunthorpe in North Lincolnshire, which was opened about 5 years ago and got to the point of providing about 30% of the U.K.'s [cut basil]. So we've seen the vertical farms as monocrops systems. You get them working really well, doing one thing brilliantly, into the market.

Then we had an R&D site in Bristol and our newest farm, which is -- I always joke with some of your colleagues, it does look like a Schneider-verse farm when you go in because of how many Schneider parts are in, it's in [Litany], in [Chepstow]. And that supplies people like [Asda] and things like that into the U.K. retail in person.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

So Anne, now looping you in, we heard from Aamir that water is a basic need for humans. So can you explain us how Veolia works on this need over the last years?

Anne Le Guennec -- Senior Executive Vice President for Worldwide Water

Yes. Well, at Veolia, we do work on water, waste and energy management. But our work purpose is ecological transformation. We decarbonize, we depollute, and we regenerate.

And I think water is probably the best example to illustrate that because -- well, look about water scarcity, there is water. But the water is never at the right place, at the right moment, at the right quality anymore to supply our communities or our industries, whatever the kind of industry is.

So we at Veolia, we provide solutions to treat any kind of water, from drinking water to wastewater, to ultrapure water, depending on what we want to remove or what we want to add, depending on the needs of the industry. And do you understand very well that doing that, we also need to tackle two other challenges.

The first one is that we need to be safe and reliable at any time because our customers need that. I mean, for food and [bev], for example, there's no way for pharmaceutical, there's no way that at one moment in time, we are not exactly at the right quality or at the right place.

The second challenge is that because this is our purpose at Veolia, we need to reuse water. It's too valuable to be used only once, this is what we say. But we also need to take care of the energy that we consume to treat that water. We also need to take care of using as less chemicals as we can, and we need to make sure that we regenerate or reuse whatever can be reused. So this is our motto. This is what we do, and this is where we need to be reliable at all times.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Okay. It's good to hear that we all share common goals here in the mission. So James, as a start-up, digitalization might have been also in the core of what you're doing to really get the efficiency from day 1. Can you tell us what were the technologies or the approaches you have chosen? And how you have applied them?

James Lloyd-Jones -- Founder & CEO Jones Food Company

Yes. The digitalization was when we started, it wasn't forefront. It was how can we get the hardware to work in a very efficient way. And digitalization has now come through the business because it's very well getting that hardware working to get good yield and consistency out of the automation in the hardware itself.

And then it's -- you're always looking for that 1% more on yield or how do you use energy more efficiently and getting that data out, which is key because it's good for both traceability and also benchmarking. We want to prove that our product is both clean, long shelf life, nutritional value, low microbe. And we use digitalization into -- sort of take all that information and almost give it a [passport] and say, "Yes, we're good there."

But for energy efficiency, and how we deliver water and then the nutrients into the plants, and the digitalization is becoming really important because let's be fair, I deal in a market that deals in pennies on the kilo. We're not selling gold bars. So we have to ensure that every input we put in, we're monitoring 100% and a bit like a Formula 1 team.

We're trying to look at how do we get that 1% more down every single day. So it has become a huge part of the company and our thinking how do we use the data that we're getting and how do we then interpret it, again, just to get a consistent product into the market every day that we grow.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

How much were you instrumental as a leader [serving] this forward?

James Lloyd-Jones -- Founder & CEO Jones Food Company

Well, if you ask our staff, they'll probably say that I was very instrumental. I think it was actually driven a lot by a number of teams because it's all very well writing checks and thinking, "Okay, we've got all these OpEx costs and things like that" and almost taking as a norm.

So there's more -- it was quite collaborative actually. So the growers would say, "Well, hang on a minute. We're putting this much nutrient into -- through the water, and then it's coming out, and we're recirculating it. How much are we using so that we want to bring the use of nutrients down?"

And then without sounding too boring, the Accountancy department going, "You're spending a lot on that energy. How do we change it?" And it really became from a number of different work streams within the company of going, "Okay, let's -- how do we monitor this better and then use that information to keep everyone happy?"

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

So really strongly working together...

James Lloyd-Jones -- Founder & CEO Jones Food Company

Very much so.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Okay. Yes. So coming to the topic of partnership and coming back to you, Anne, in Schneider Electric, we deeply believe in the strength of partnerships and collaboration. And now in the 170 years of experience in transforming a principle to meet the market demands, how did we support you? Or how did we work together with you?

Anne Le Guennec -- Senior Executive Vice President for Worldwide Water

Yes, indeed, there is quite a lot of water gone under the bridge, the decree signed by Napoleon itself. At Veolia, we've transformed along the way, of course, coming from bringing water to the tap, sanitation to the transformation that we need to tackle today. And of course, it's a transformation that goes around whatever is way of life, health and safety, quite a lot, and digitalization altogether. And this is what we've seen being accelerated by the recent crisis.

It's been a bit more than 20 years that we worked with Schneider as a partner, and we are also very much convinced of the need for partnerships, so everybody can focus on its core business. And for us, it's key that we bring our expertise on the environmental solutions and water solutions for the water technologies, but that we are not a platform provider, that we're not in automation and digital.

So this partnership with Schneider has been key for the same reason then James, I would say, for efficiency and because we deliver proof, not promises, this is one of our motto. We need to demonstrate at any time that we are doing exactly what the customer is expecting. And on that, Schneider has been very useful because we operate across all kinds of industries, and Schneider has a very transversal expertise on that.

So it has been very useful to be able, whatever the type of industry that we serve, to have that partnership to demonstrate our real-time efficiency and also to innovate because along the way, we've made our systems more and more complex.

So we are now building huge and very complex plants, for example, desalination in the Middle East or the new emerging and cutting-edge markets, microelectronics and recovering lithium, for example, from mining or even pharmaceutical with ultrapure water. So our systems are more and more complex. Sometimes we are building plants that will provide thousands of cubic meters of water. And for that, we use Schneider a lot with the engineering platform that you provide to us.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

So you mentioned now this very large water supply projects, desalination and so on. And you mentioned before, really safety, reliability is a big requirement. So how are you now really going to implement this?

Anne Le Guennec -- Senior Executive Vice President for Worldwide Water

Well, we have expertise, but our expertise is all around the world. We operate everywhere, and our engineering expertise is centralized, so whatever it is in the -- where people need to work together. So how we are going to use that and how we are using it today? Well, for example, we use the

AVEVA engineering platform, so I have something like 200 people that can connect to a data-centric platform and work collaboratively on a single project.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

In the whole world?

Anne Le Guenec -- Senior Executive Vice President for Worldwide Water

In the whole world. So that's very important to us because that expertise cannot be duplicated everywhere. And then we have a platform where we can standardize that and automatizing, which makes our life, of course, easier but makes our services more efficient, too.

The second example is that we use the -- your platform on planning and using the resources, the AVEVA resource -- enterprise resource platform, and that's very useful as well for us to plan a little bit better.

In the years to come, what we absolutely want to accelerate because the ecological transformation needs to be accelerated is to go, of course, further with an eye on digital twins to better enter into the predictive maintenance and make sure that again, whoever our industrial customers are, we provide them with the best solution. And we are, of course, happy to be with you on this journey.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

So James, final question to you. We have heard now several times during the day the labor shortage. How did you take this into account in your concept when you started up the production? What was it on top of your mind how to optimize your production processes?

James Lloyd-Jones -- Founder & CEO Jones Food Company

So labor shortage in the U.K., especially in farming, is quite acute. It's often in the papers, food rotting and things like that. So automation has been key all the way through. So how do we get a crop grown through and be harvested, packed without being touched? And on average, your food's touched 13x before you eat it. So what I wanted was to sort of cut that out and make it as clean as possible.

So by working with automation partners, so one of our investors is [Ocado], who -- that's how I came and found Schneider because they use a lot of your products and things. So we were able to -- and they were able to go, "Look, we need to optimize drives," for instance. So how do we -- and it goes again back to the energy. "How do we make sure the conveyors and the harvesters and things work when they need to work and ramp up properly?"

So automation is key in taking also away the sort of jobs that are maybe low-skilled or low-paid, so we're able to then have well-paid people in communities that actually have more spending power in the community. So we're a bit more light than just having lots of people coming in.

But with the automation, it's -- I'm almost talking about hardware, but we've worked with AVEVA to see where we're at R&D, how we get to the point where we take all the data in from the automation and growing it and then make it all talk to each other. So you're getting to the point where you can grow something without ever touching it. So you will say, "Right, this is happening." And then the AVEVA system will say, "This is the perfect climate," and then run the HVAC and things and all the other auxiliary systems. Then it goes on to the automation and through.

But automation is key to also ensure that the -- when you build a facility with [AVEVA], this is not a 3-year machine, you want it to have 20, 30 years of operation. So using the likes of AVEVA and -- are now looking at all the new parts. We're moving a lot of our stuff to PLCs with Schneider and the sort of new digitalization platform is so that we can -- it's always getting back to that 1% and bringing it down.

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But the automation hardware has to talk really well to the software. Otherwise, you've got really expensive kit not doing stuff optimally.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

It's good to hear. And again, it's not that the robotics or automation has eliminated workplace, it rather has increased the quality.

James Lloyd-Jones -- Founder & CEO Jones Food Company

You've increased -- yes, definitely. You've increased your staffing in the training, so -- because we don't want people leaving. The cost...

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

The retention there.

James Lloyd-Jones -- Founder & CEO Jones Food Company

The retention is much better by having really skilled staff. They actually like coming to work and working with new ideas and new pieces of kit.

Barbara Frei - Schneider Electric S.E. - EVP of Industrial Automation

Very good to hear. So thanks a lot for your inspiring insights that you have shared with us, very much appreciate it. Yes, let's continue our partnership both for the software piece, for the product piece, for the services piece. And looking forward to that one. Thanks a lot.

(presentation)

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

Todd, welcome to your stadium.

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Yes. Thank you. Thank you, Kelly. And if I may, I'd just say, first off, it's an honor to be here. But on behalf of our entire football club, our Chairman, Daniel [Levy] and the rest of our Board, welcome to Tottenham Hotspur Stadium. It really is hard to have you here and excited for the discussion today.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

Perfect. So Todd, why don't you tell us a little bit about Tottenham, the history, the community in which Tottenham has operating, for 2 Americans to talk football here? I think we'll help everybody else in the audience who maybe isn't...

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Well, we're going to talk football inside the NFL locker room, too, which is kind of funny. And we only have 15 minutes, so I want to be careful because we can talk about this because we're really proud of our heritage in our history.

This club has been here since 1882. And to look at where it is today and to look at the growth of not just football around the world, but to look at the growth of the Premier League and to really be on the forefront of what's happening at the stadium and to be able to use infrastructure as a way to power not just fan engagement but to be able to power a deeper connection with all the consumers around the world, for all of our content that we have here, whether it be the National Football League, the Premier League, European Football, Rugby, we've announced a 15-year partnership with Formula 1, everything we do M&A, it really is driven to benefit our community, where we live here in [N17], but also be able to create a greater longer legacy. We'll get judged as a Board not how we found it, but how we leave it. And we operate under that principle every single day.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

So 10-plus years ago, the club decided it needed a new facility to represent the community and what the club was really standing for, is -- it sort of went up the [Premier League] ranks. So what was that process like as you guys began to think about a stadium? What were the key attributes you were looking for in partners? How did Schneider fit into that?

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

So I love stadiums, and my like silly grin in that photo is like I just love looking out the window and seeing what we've built. But coming from the states in the U.S., where infrastructure in stadiums and arenas are of the experience and really part of the community, so remember, if I asked all of you guarantee you remember the first concert you went to or the first football match you went to, so we really believe that the right infrastructure is really where we're going to attract not just the best talent in terms of players, not give us a competitive advantage on the pitch, but also in terms of running a commercial operation to compete, in which we all have different businesses that we compete in, we needed an edge to compete.

And so when you look to build a stadium, I sort of joked that in Europe, there was like the Colosseum, and then there's really this. Like there hasn't been a lot in between, right? And so we needed to look at things. It really came down and our Chairman has a great vision, but really, it's about partners because we don't -- no, I'm not an architect, thank you, Populous, right? I'm not -- we're not designing things we're building. Thank you, F3 Architects. And honestly, we're not building management operator experts, right? And so we have to find partners like Schneider who help us. And we're only going to build 1 stadium in our lifetime here, right? It isn't a joke. And so we had to find a partner that could actually help guide us make decisions to not just kind of plan for solve the problem for today, what we call it a sustainable solution that's going to help solve this for tomorrow as well. And I think that's where we were very, very lucky, very early on, is it, what, 10 year plus process from design, land acquisition, build and now getting into operation in the future. We were very lucky to work with great partners, particularly Schneider to help us deliver on the vision.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

I think the brief for everybody was actually to work together, right, for architects to work together and the consulting engineer firms and Schneider is an example, which is really critical. So it's probably fair to note at this moment, neither Todd or I are the technical experts in the room. However, it's worth showing the breadth of everything that is in the stadium. As James was talking about before, I think the coolest thing we do here, quite frankly, is out on the pitch where we move the NFL pitch or the NFL field, I guess, and the pitch back and forth.

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

As Americans, the coolest thing we do is actually cool. We love air conditioning, it is a right in our land, not a privilege. And literally, like something as simple as to correct HVAC and controlling systems in a building like this, like this is a massive facility for us to run. And if you look at today, like we have a pocket of people here, we have our staff over in Lilywhite House. We're doing a commercial shoot in our F1 Karting facility.

And the reality is I don't need to be running power in every single location, how am I managing lights? How am I turning on and off things? How am I cooling the right zones, but also not letting other areas get too hot and spoiling product that may be in refrigerator? Like operational efficiency

for us is all about the experience. And you'd be surprised how much the climate, the environment and what Schneider does helps us deliver on what people expect from the best stadium in the world.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

Well, and I think we've had people embedded in the stadium for pretty much since about 2016 or during the several year construction process. Stadium opened in 2019, so it's been open and operating for 4 years. Can you talk a little bit about what it means in the stadium when you run an NFL game and 2 days later, you're trying to have a concert and what that takes to actually happen in a facility like this?

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Well, it's funny. You saw in that video, if you got a chance, there was a moment where I was looking at a screen with -- and you go to our control room, and it's not just our Head of Security watching the ingress and the egress with the police, not just our ticket office that's looking at our fortress for how many people have scanned in. We actually have Schneider in that control room with us part of our team, helping us manage our building facilities and our plants. That is critical. And it's -- we'll play a ton of match on a Saturday, and we had the New Zealand all blocks here on a Sunday, right?

We'll do NFL in Tottenham within literally 6 days or Beyoncé will come in here with 110 trucks. And if you don't have coordination amongst all your -- that's why we don't like to call them, I'll say it, vendors because they're not vendors, they're partners. We can't do it. We're about 700 people in our company. And on a given match day, we'll swell to about 3,000. And the reality is if we don't have great partners, we can't make that transition, we can't move our pitch and have the first-of-its-kind NFL field right below.

We can't load Beyoncé in correctly. We can't -- again, we're American, we can't put the fireworks on the roof right, right? If we don't do it, and it has to be through coordination, it has to be through planning and it has to be through really technology, software and systems to allow us the operational efficiency to do it.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

And I think when you and I met 3 years ago for the first time, when I took this role and you came into this job, we talked a lot about, okay, the stadium is operational now. It's working. Now what do we need to do from an energy perspective to make sure we actually deliver on our commitment as your official energy partner and also actually deliver?

So for those who don't know, 50% of the buildings in the U.K., basically waste energy. And so I think the club was really committed to not doing that. Not being part of the problem, but actually being part of the solution. So when you and the Board talk about energy usage and the multi components of what happens here, how high is that on the agenda?

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Look, we are -- we've won the -- we've been in the top of this is primarily a sustainability table since the debut 3 years running. Sustainability is not just a buzzword. Everyone in the U.K., we experienced quite a bit of surge energy prices. And we were the only team or we were very happy with the decisions we made with Schneider to be able to be prepared to handle it, right? It doesn't mean we're happy with the rates we're being charged, but the reality is we actually have the ability to work through it with a partner.

And sustainability for us like -- we're very proud of 100% of our energy powering all of our systems is renewable. And the reality is we were the first team ever, and I love saying this that we were a club at first, we are the first team ever to hold a net carbon zero again here at the stadium, right? And the reason we did it. One, it was an immense amount of work, but we did it so we learned what we had to do to sign the UN climate pledge to become net carbon zero by 2040. Right? And so for us, it was about the learning.

And Kelly said it perfectly, we're not the technical experts. I shouldn't know what Scope 1 and Scope 2 emissions are. Right? I should know what center backs do and what concerts we should put in the stadium and right, what we should put in all of our suites and for catering, but that's how detailed we're getting at the Board is down to our employee commuting tendencies, right, of what our power usage is and where we can improve, but also where we can use -- and that data comes from the 24/7 monitoring that Schneider does for us.

And we'll understand like what's happening over here in this quadrant of the building? Why is my building maintenance facilities leaving this on? Or why is there so much power coming out of here on this events? It's allowing us to structure better contracts with our content partners. It's allowing us to run our building more operationally efficient. And I'll make this a bit about sports, if I can, why that matters is so we can invest everything we make back into our first team, our women's team and our Academy because that's what we do here, like we are a football team. And all this operational efficiency while it drives experience, keeping costs where they need to be through partnership allows us to deliver a better product on the pitch.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

And I think I'd be remiss in saying that we're super proud of this relationship, the 20% reduction in energy usage that we continue to monitor. We have people embedded still full time on the site. And we continue to work through this as partners and are using the Tottenham examples with other stadiums around the world who are all realizing that they have a place sort of on the climate journey and that they have huge footprints that they've got to control as well.

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

I think it's -- when people look at the stadium and you look at partnerships with Schneider, you realize it can be done, there's really no excuses. You just have to put time, effort and energy into doing it. And you have to be willing to ask for help.

You have to be willing to ask for best-in-class partners to be able to help you deliver on your vision. And money solves a lot of problems, but this isn't just about reducing cost. This is about being a better citizen in the world. This is about leading in an area that actually sports should lead.

We're not just a football club. We believe that we're a public institution and what Tottenham should stand for in terms of sustainability, in terms of diversity and inclusion, in terms of the role we play in the community. We have a lot bigger say than maybe a company in another industry. And we don't take that lightly at all. And that's why sustainability has been at the core.

Since the building opened, it really allowed for us to be able to put it at the center of what we do and be able to think about it, not just like I said, for today, but where we're going in the future, whether it be renewables, whether it be battery, whether it be solar. These are all the things that we're talking to Kelly and her team about on a regular basis.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

Well, and I think the impact in the values that you guys have a club -- as a club is aligned to who we are as a company. So as Todd said, we're constantly talking about what's next, what could be. If you gave people a little bit of a preview of beyond this facility, where is the vision of the club? What else do you expect to do in the community?

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Yes. Well, look, I think you're looking at sports-led regenerations and I take it, we have some people joining us from all over the world. But if you look at certain cities like Downtown Los Angeles and even Brooklyn, some other cities around the world, really, when you put arena in the middle of an urban environment, you can really do a lot of good. And we're very proud of the fact that just when the NFL is here, we have an economic

impact of just N17, which is our post code with over GBP 300 million. And so we're looking to invest more. We have a multiphase 10-year road map of a full regeneration of the area.

We'll actually break ground on our hotel, which is 202 rooms, which will be on our south podium, which all of you probably could have stayed in last night, and we could have invited more people to the building, which will completely change the conference and events for this area.

We're building 3,000 apartments on campus. We're building a new live, work, play environment with student housing. We're building a creative quarter right now. We're very proud that Sarabande Foundation, the Alexander McQueen Foundation have already moved in. And so we're actually looking to actually really regenerate the area. There may or may not be plans for some other venues in and around the facility, which we can't -- haven't gone the planning yet. So I don't want to break news here on Schneider Capital Markets Day. But the reality is, as we expand, the thing that Kelly and Schneider have brought us is the scalable solution, right?

We want to manage 1 plan. It needs to be central. We need that central nerve zone to be able to talk to what's happening across the entire district which starts as a stadium is going to expand to an entire footprint, city blocks, right? And that's the difference. And if you don't do it with the right infrastructure, we're only as good as the foundation we built on and the technology and the software that we're running on.

Kelly Becker - Schneider Electric S.E. - President, UK and Ireland

Well, we're excited to partner together. I think it's worth noting that Tottenham has been named for the last several years, the Premier League's Greenest Club, which we're incredibly proud to play our role in, but obviously, you guys are doing so much more. So thank you, Todd, for the partnership. Thank you for the commitment. We look forward to working together and using you guys as a shining symbol of what working long term and thinking together could look like.

Todd Kline - Tottenham Hotspur Limited - Chief Commercial Officer

Kelly, thank you for the partnership. It is -- we started at a very similar time and we've been great friends and a great ally to what we're doing, and we welcome all of you here. We hope you enjoy your experience. We hope all of you are Tottenham fans moving forward. But if not, we hope you come back for F1. We hope you come to NFL. We hope you come to our concerts. That's what a multipurpose global entertainment destination is. And we can't do without great partners. And therefore, I'm very appreciative of you as well as of Schneider and for you all being here today. So thank you very much.

Hilary Barbara Maxson - Schneider Electric S.E. - CFO

Super excited to look more at the stadium later today. I'm happy to be with you guys that are here in person and also for you guys virtually. I have the pleasure to be the last presentation of the day. So hopefully, I can keep your attention, just 2 topics that I'm going to cover. First, the translation of all of the strategy we discussed today into value. Now of course, we talked a lot about the translation of value to our customers. I'm going to talk about the translation of value to our shareholders. And our financial expectations for 2024 to 2027 and into the next frontier.

So I'll start with a quick look-back on our last Capital Markets Day. In November of 2021, we talked about sustainable and scalable growth. In particular, organic growth in sales of 5% to 8% and that was from 2022 to 2024. And that was a big step up from where we were performing before that in the past. Plus, we talked about an expansion in our EBITA of 30 to 70 basis points per year. And I'm pleased to say that we're well on track to meet these commitments. And as part of that EBITA expansion, we talked about around EUR 1 billion structural savings programs, we completed that in 2022. And all of this was translating to a step-up in our cash flows to around EUR 4 billion by 2024, and we remain on good track there as well.

I'm not going to cover all of the details of this slide, but we spoke also that day about an evolution in our revenues towards more digital, more sustainable and more recurring. Ensuring that growth remains scalable in our margins and all of that powered and fueled by more investments and a step-up in innovation. And those focuses continue in the updated journey that we've shared with you today.

So now to shift to the future. And the first topic, and Peter mentioned it already, but no doubt the first topic driving value for us over this next set of years is definitely growth. And getting into growth in 2021, we said we saw a doubling of our markets from around 2% to maybe 4% in the 2022 to 2024 time frame due to the mega trends that we talked about today -- sorry, we talked about then.

Now today, we've talked more about the mega trends throughout everything that we've already said. And as you can see, we see an acceleration in those mega trends plus new mega trends coming into the picture, all leading to an acceleration in our addressable markets now in the range of around 6% to 7% for the next 4 years.

That strength in mega trends plus our unique company positioning, plus our focus is on innovation, more software, more prosumer, artificial intelligence, that's giving us the confidence to upgrade our expectations for our organic growth, and that's a CAGR between 2024 or starting with our performance in 2024 through 2027, to 7% to 10%.

And that's not a guideline for any of the given years within that cycle, but what we expect over that cycle in entirety over the next 4 years. Another big step-up for us in terms of revenue growth. And all of that requires the growth culture and the execution that Peter talked about, and we talked about early -- throughout the day today.

Now we have a different market now than what we had in 2021. Those mega trends, alongside with the macroeconomic backdrop are leading to more divergence in terms of opportunities, whether across our geographies, across our business models or across our end markets, and I'll speak a little bit more to that in a minute.

Peter spoke about the key strengths of Schneider. And I think you can see these reflected across our 4 key business models of products, systems, software and services. And that mix of diverse business models means that we're well positioned for growth across the economic cycle. So through a mix of longer-cycle business, shorter-cycle business and increasingly sticky and recurring revenues. And all 4 of these business models are impacted positively by the mega trends.

Starting with our market-leading franchise of products, we continue to see strong opportunities in products and growth of mid- to high single digit from 2024 to 2027, all supported by innovation. Our systems business model, we've seen a big pickup there recently. This is where we serve our end customers directly and continues, and we expect it to be continued to be supported by trends in artificial intelligence, in energy transition, in government actions. And our key segments here, we talked about a lot of them today, data center, grid across our process industries. In many of our key markets, our backlog in the systems business model now extends into 2025. So we're confident that we'll see double-digit growth in this business model through 2027.

We talked about the strong opportunities in software with Caspar and with Rob. And in services, we also see strong opportunities. So we expect double-digit growth in both of those business models. Now of course, in software, that's going to show first in the ARR growth that we're showing during the transition to subscription and after in the expected double-digit revenue growth that we see here. And both of those business models also show more and more increasing recurring revenues over the cycle.

To give you a geographic perspective, we have some markets now with particularly strong opportunities through 2027. And here on this slide, you can see our 5 largest markets. In the U.S., you can see in the U.S., we're almost EUR 10 billion company. No doubt the strong market leader there, particularly in energy management. We talk with Aamir about the great opportunities that we have in the U.S., and that really extends across all of the business models.

We also see significant opportunities in India where we've already seen double-digit growth across the last couple of years. And where we're uniquely positioned after closing the acquisition of L&T's E&A business, I think Peter mentioned that earlier, we closed that at the end of 2020. Middle East Africa is another area I'll call out where we've been performing strongly, and we expect strong growth opportunities there to continue.

In China, we continue to see growth from 2024 to 2027 of a relatively lower than in the decades when that market was maturing. And in France and also in Europe, we continue to see growth opportunities particularly tied to energy transition, but this is an area we expect will grow at a

relatively lower pace than the rest of the -- our portfolio from 2024 to 2027. And given this expected differential in growth opportunities, we're focusing our resources accordingly.

Now all of this continues to drive an evolution in our mix of revenues, more digital, more sticky and resilient as we transition to a leader in industrial tech. And we track this both in the past and we'll continue to track this through our digital flywheel, so connected products, edge control, software and services. And each of these plays a key role in our customers' digital journey, and I think we saw that throughout the day today.

We expect to continue to progress our digital revenues overall with the flywheel stepping up to 60% to 65% of our total revenues by 2027.

In terms of recurring revenue, we also expect a strong progression, particularly in agnostic software as we finalize our transition to subscription at AVEVA, driving our overall recurring revenues in agnostic software to around 80% by 2027. And in services, which like our software business tends to any ways, be more sticky by nature, we also expect to continue to see progress in our recurring revenues. And that's through transformation of our contracts and also digitalization there with our digital services.

So I've gone through our expectations for growth in the prior section. I'd like to talk a little bit about profitability. We've definitely had a strong trajectory in our profitability over the last few years. And it's important to us that our sustainable growth journey remains scalable from 2024 to 2027. And through a combination of the strong growth that I just mentioned, strong gross margin and our agile operating model, we expect to expand our organic adjusted EBITA margin at a CAGR of around 50 basis points over the period. And again, that's a CAGR that I've given here, so it's not indicative for any of the particular 4 years.

Starting with the elements that will support and drive our gross margin over the period. We've historically been a price leader in most of our markets, and we expect that strong pricing power to continue. You can see here, just as an example, we've driven around 30 basis points average improvements to our gross margin over quite a few of our past years due to what we call net price. And the way we calculate that is the sum of all the price that we put on our products, subtracting our raw materials index. And we believe that, that pricing power continues in 2024 to 2027. And that pricing is not just in products, which is what I've shown for the 35 basis points here. But we're focused on driving value-add pricing across all of our business models. So including opportunities in software, in services and in systems.

Industrial productivity has always been a driver of our gross margin in the past. And you can see in the graph here that between 2005 and 2020, we drove around EUR 300 million of industrial productivity per year in terms of gross margin. Of course, between 2020 and 2023, and you can see that on the graph already.

We were strongly impacted by the supply chain crisis. But I've mentioned a couple of times in the past already that we expect a partial turnaround towards more normal levels of industrial productivity in 2023. We expect that to continue into 2024, and we expect industrial productivity to be a strong contributor for us between '24 and '27 similar to what we saw pre-2020.

The last point I'll make on our gross margin is around mix. And the biggest driver of our mix, no doubt, remains the differential in growth rates between our business models. And from 2024 to 2027, we clearly have a difference in mix between business models than what we've seen over the recent years, with systems growing faster than products, but also with software back to double digit after the transition. And the software business is a key contributor here for us as it has significantly higher gross margins than the overall group.

Our systems business does have a lower gross margin level than the group. However, this difference has decreased by more than 1/3 since 2016 due to our focus on operational excellence and pricing in that business model. So overall, we would expect the accelerating growth in systems to negatively impact our mix over this time period but to a lower degree than what we've seen in the past and partially mitigated by software. And the systems business is less OpEx-intensive. So at the level of our adjusted EBITA, we would expect that mitigation to be even stronger.

In addition to gross margin, the other key driver of our adjusted EBITA margin is our costs and how we choose to manage them. We do expect to invest for growth between 2024 and 2027 given all of the significant opportunities that we mentioned here today. And one of the key elements to ensure that we execute for sustainable growth, and we talked about it throughout the day quite a bit is innovation, and that's fueled by our investments in R&D, particularly in products, in software and in sustainability. We'd already mentioned in 2021 that we expected a step-up in our

R&D as a percentage of sales. And we started at that time at around 5%. Today we're about 5.7% of our sales in terms of R&D, and we expect that to step up to around 7% by 2027.

Peter mentioned that we continue to expand our position as an ESG champion, something we view as a key driver of our internal culture and also opportunities that we have with customers. So we expect investments of around EUR 400 million in our own sustainability journey between now and 2030 as we look to proceed towards net zero. And we do expect incremental investments in CapEx around EUR 2 billion to support growth over the same period, '24 to '27. But to put all of this into perspective, our tangible CapEx, so that would include the sustainability, the capacity, also additional investments in resilience.

As a percentage of sales, we expect to remain in a range of around 2% to 2.5%, and we're about at the top end of that range already today. So we remain a very capital-light company, low capital intensity with a highly agile operating model. And to support that agility further, we mentioned a couple of times throughout the day, the opportunities we have with AI and with digital, that's for our own customers, but for ourselves as well. So we expect to invest there to drive internal efficiencies and process improvements over the next few years.

Now I mentioned -- we mentioned a bunch of times the multi-hub model, the empowerment it drives, the innovation that it drives and putting the decision-making closer to our markets. It also plays a key role as we drive for simplification and more agility in our operating model. We don't, of course, have a perfect crystal ball to the future, and we're talking about a time frame of '24 to '27 here. So that operating model agility is more and more important with increasing geopolitical tensions and a differentiating return profile across our markets.

We definitely intend to invest for growth. I talked about that in the prior slide, but we also continue to expect to responsibly manage our support function costs or SFC, or really the entirety of our OpEx, that's what we call it. And we do expect to drive a reduction in our SFC to sales ratio between '24 to '27, further supporting our expansion in adjusted EBITA margins.

Turning to cash flows. We have made a step up in our cash from starting around EUR 2 billion on average for quite a few years, up to EUR 3 billion, and we remain on track, like I said at the beginning, for the EUR 4 billion ambition by 2024. I mentioned we continue to be a low capital intensity company, and we continue to expect a cash conversion ratio of around 100% over the cycle on average. So that will support another strong step up in our free cash flows over this period to 2027.

And behind all of these financial targets is a focus on adding value. And one of the key metrics we focus on there is our ROCE or our return on capital employed in our core business, but also to track the value add of our acquisitions over time. And based on the ambitions we've shared today, we expect to drive our ROCE towards 15% plus in the next few years.

Turning now to capital allocation, and Peter covered this a little bit, we've adjusted our priorities, particularly to include funding organic growth as we see a large part of our '24 to 2027 journey, tied to the execution of all of the growth opportunities that we're uniquely positioned to pursue and we talked about that today. The rest of our priorities remain primarily unchanged. We're focused on disciplined capital allocation with a focus on shareholder returns over the short, medium and longer term. And I'll go through a little bit of detail in the next slides.

First, as a key priority, we remain committed to strong investment-grade credit ratings, ensures reliable access to the capital markets, gives us flexibility to manage our strategy, support low cost of debt, at least relative to others in the market. I can't say that debt is generally low cost nowadays. Secondly, we've maintained a progressive dividend for the past 13 years, and that return to shareholders in the form of reliable and progressive dividends remains important for us and a key priority going forward.

In terms of portfolio evolution and shareholder returns, well, I already mentioned the funding organic growth, and we went through some details on where we expect to spend that funding. In terms of the portfolio, the current priority without any doubt is organic growth. We remain opportunistic and agile towards acquisitions that reinforce our unique portfolio positioning in growth markets and some good examples of that I would give in the recent past would be the purchase of the minority interest from AVEVA, the acquisition of OSISoft and the acquisition of L&T's E&A business in India.

In terms of divestitures, we continue to regularly assess our portfolio to ensure that all the aspects remain strongly linked to our long-term strategy. But in both cases, either acquisitions or divestments, we don't see any transformative transactions in the near term.

And lastly, we completed our shareholder buyback program of EUR 1.5 billion to EUR 2 billion quite recently, and we expect to only buy back shares to neutralize employee share plans going forward. Now of course, we remain a strong free cash flow generating company. So we would expect a return to shareholders in some form in the case of any excess cash buildup at the company.

I'll finish just by summarizing all the key financial metrics we presented here today that translate into strong value creation for our shareholders. First, we're uniquely positioned to continue to capture growth through our portfolio and our execution. We expect to continue and to step up our sustainable growth journey with organic growth CAGR of plus 7% to 10% from 2023 to 2027. Again, that's a 4-year CAGR with the baseline 2023. So that starts with our first year in 2024.

We believe that, that growth journey should remain scalable. So we don't think we're at the end of our margin expansion journey. We expect to expand our adjusted EBITA margin at a CAGR of around 50 basis points organic over the period, supported by our execution on growth, our strong gross margins and our agile operating model. And that expansion in topline and in margin will drive another strong step up in our cash flows and combined with disciplined capital allocation, this all translates to strong total shareholder returns.

One last comment I'll make is that we continue to strive towards a consistent company of 25. That's a sum of our organic growth and adjusted EBITA margin and that's across the cycle. So beyond 2027. We think that does continue to be a big goal for us and one that's worth aiming for.

And with that, I think we can change to Q&A.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

I think the microphone is working now. Now I was just saying that it's between this session and lunch, but I think it's very important that we get through the Q&A, and I'm sure that you've all been waiting for that. We will obviously take the Q&A from the room for the folks who are over here. What I suggest is that keep it to one as we always say so that there's opportunity for more questions and more people to ask them. So we can get started. Hands up in the air. Okay, let's go with you, Andre. How are you?

Unidentified Analyst

It's Andre from UBS. I wanted to ask a question on, I guess, predictably on the growth versus margin expansion and how you think about these two, given the macro backdrop that is affecting, I guess, at least some of your verticals despite the mega trends and all the very strong drivers that you presented. So in the kind of tactically in the next 12 months, how are you thinking about this, both kind of feels and the guess on margin and growth? Or are you trying to prioritize one or the other?

Peter W. Herweck - Schneider Electric S.E. - CEO

So as we said, the -- we've been talking about this period of 4 years, and we do see some headwinds in some markets. It's in totality, more complex than it was in the last couple of years where everything was swinging in sync and now one needs to look at different end markets and the geographies to pinpoint on the right areas of growth.

Now today is not the day to talk about the '24 guidance. We'll do this once we finish this year. So Q4 is in full run. We finished the first month of it. And as Hilary said, we -- and myself, we're going to have a very agile operating model as we go through the quarters of '24 because in some markets, we do see headwinds in some areas, we have backlog until 2025. You've heard Chris talk on what's happening on the data center side.

Nicole didn't give a value that we didn't want to disclose, but I can tell you I like it a lot. And from that perspective, one needs to look at those different markets, respectively. And we will see that certain areas will be a little bit slower in the next couple of quarters, maybe also turning negative and other is going to be well double digit.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Phil?

Philip John Buller - Joh. Berenberg, Gossler & Co. KG, Research Division - Research Analyst

It's Phil Buller from Berenberg. Can I just start by clarifying the guide first, please? The 50 basis points CAGR in the margin, just in simple terms because normally margins, we don't hear about any CAGR-type fashion. So is that implying we're shooting for a 20% margin? Or is that the wrong way to interpret that? That's kind of the first clarification, if I can, please.

Hilary Barbara Maxson - Schneider Electric S.E. - CFO

So no different in my mind than a CAGR that you would give on the topline. Therefore, if every single year was identical, then it would be 50-50, 50-50, if that explains it.

Philip John Buller - Joh. Berenberg, Gossler & Co. KG, Research Division - Research Analyst

And then in terms of the growth guide, as Andre's question was, it sounds quite ambitious from the outside, which is fantastic. But is there going to be a change to your incentive structures to align to some of those new growth and margin objectives, please?

Peter W. Herweck - Schneider Electric S.E. - CEO

The -- we -- I think we haven't thought about those, respectively. On the long-term incentive anyway, these are set for the next couple of years. And we will put different weights on different of the KPIs in years of growth importance that has had a little bit more weight than others, and we do that as it makes sense.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Thank you. Let's stick to one, Jonathan?

Jonathan R. Mounsey - BNP Paribas Exane, Research Division - Analyst of Capital Goods

It's Jonathan Mounsey from BNP Paribas Exane. I think, I mean, you said, I think it is a 20% margin, EUR 50 billion and EUR 10 billion of EBITA. When you get there -- if you get there, as you said, you're capital light, you gave a feeling for the CapEx plans. Your targets for the P&L kind of -- and your free cash flow conversion target do kind of imply in combination with the M&A bolt-ons that you're going to have a lot of excess capital when we get there. And you talked about capital return to shareholders. I'm just wondering if you want to sort of say explicitly how much you would give back. Do you have a sort of feeling what your ideal leverage might be, financial leverage, please?

Peter W. Herweck - Schneider Electric S.E. - CEO

You want to take this, Hilary? Complicated for me. I give this to you.

Hilary Barbara Maxson - Schneider Electric S.E. - CFO

You've seen that our leverage has moved a bit over the past few years. We made the OSI acquisition then we made the acquisition of the AVEVA minorities. In both cases, I would say that we have sort of a peaking of debt here, we talked about the fact that we have investment grade as a key -- is actually our top priority in terms of capital allocation. So in general, we would look probably just like we did after OSI to have some decrease versus the level of leverage that we have today, probably those peaks after OSI or after AVEVA. Well, I don't give a particular number for it. Probably those are -- probably the peaks that we would not want to retain it and then look to trend down from that over time, just like we did after OSI, we haven't yet started trending down after AVEVA, but I would expect that, that would be the case.

And in terms of excess capital, then I think I answered the question today, that's not the case. You can see that, in fact, we have the leverage because of the acquisition that we made at the -- really at the beginning of this year, I guess, is when we did the close. In terms of excess capital, we talked through debt, so that's something that we would look to trend down in the ratios that we have today.

We talked about the progressive dividend. And then, of course, we've always been a company that looks for opportunities in terms of M&A. I wouldn't expect that to change. That's something that we talked about here today. But if we did have excess cash, then we're certainly not averse to giving that back in some form. And I mean, the 2 major forms, right, whether that's some sort of special dividend or that's some sort of share buyback. We don't -- I think as a company, we don't think that we would be really interested in gathering a lot of excess cash for no reason.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

James?

James Moore - Redburn (Europe) Limited, Research Division - Partner of Capital Goods Research

James Moore from Redburn Atlantic. I want -- I really want to ask so many questions. But on the growth, I wondered if you could just elaborate the price versus volume equation? But my real question is about automation, as we've touched on the key topics, software defined as a disruption when everybody talks about open, what is really different? And Connect, is Connect effectively an eco-structure for software? When we did eco-structure, it's been amazing. There were 2, 3 years of internal investment before it really came through, should we expect some internal investment before it really comes through?

Peter W. Herweck - Schneider Electric S.E. - CEO

Let me take the two -- second question and then the first one, I'll leave for Hilary. The -- on -- and then I start backwards on the Connect platform that hasn't just come out of the woods for this event. The -- you all know that I've been working at AVEVA for 2 years before, and Rob and I and the team, we've been talking about how can we bring the software and 1 platform, together with Schneider with Peter's team who sits here, the other Peter, my digital twin, the -- how can we also connect many of the advisers that have been built in Schneider.

How can we bring this all in 1 platform because we've seen that the usage of flexible currency that you use. And then if a client in a project needs more engineering, then he uses the engineering, when he's done with the engineering, moves into operation, he drives down the usage of engineering. He drives up the usage of operational software and why having 10 different contracts with them, it's quite complicated.

So we've said we want to do that. At the time, we just had this as AVEVA. And one of the reasons we acquired the rest or at the time, Schneider acquired me, if you will, the remaining 40% was to meet this journey faster and bring this value quicker to the market without necessarily always having a lawyer in the room and discussing a related party agreement. So the -- hence, the journey has been enhanced. I think last week, 2 weeks back was the AVEVA World Conference with 5,000 interested people that came and kind of a soft launch that was going on. So the platform is there. It's not a total vision of the future.

Now is every of those components 100% there? Software is never ready, unfortunately. So that's ongoing with the team. The good thing is already basically 3 other companies outside our own environment have committed to move on to this platform. So we see that more are coming. And you have seen also the color that we've used is a different one, and Connect has not been branded. It's -- if you come in as an AVEVA client, it will be AVEVA Connect. You come in as an ETAP clients, it's going to be ETAP Connect. You come into Schneider, it's a Schneider Connect. If you're [AROS], it will be AROS Connect. And then everything is going to be available for everybody. So we're quite advanced on this one.

On the automation question, and many of you have been following us for a long time. This goes back 2, 3 years that we announced that we would do software-defined automation. What it really does if you think about it, the franchise of a PLC plus the respective input-output modules, the IO modules that will come with it are usually one closed box has been driven by a couple of companies out there, including ourselves. And we said, why can't we disconnect the two? That may mean that we're going to be selling a less PLC hardware, but we're going to be selling more software. And the software can run on the drive, the software can run on an industrial PC, the software can run on any hardware that is ready for it in the network of this automation system. And we've gathered in our open automation community.

I don't know how many players, about 57 other companies in an organization. So it's not a Schneider organization. It's the 57 companies have built this. They have all signed up for this. So we know that these innovations take time until they get there. The -- and of course, some of the very large ones, I wouldn't expect them to sign up, their fear is that they lose their IOs and their PLCs over it. I have no fear of being open because it's been the fundamental of the company to deliver open architecture. And on the pricing, the...

Hilary Barbara Maxson - Schneider Electric S.E. - CFO

So I mentioned that one of the drivers we have in terms of gross margin is pricing. But as you know, we've had a big amount of pricing over the last couple of years, not just us, but everybody in this inflationary environment. So we haven't assumed that price would be an enormous driver of volumes in that 7% to 10%. We have varying scenarios, but I think it will be back to sort of the more normal contributions that we had in terms of price, more value-add price over the last few decades before that.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Keep it to one question, please. Martin?

Martin Wilkie - Citigroup Inc., Research Division - MD

It's Martin Wilkie from Citi. My question was just on drivers and catalysts for some of the markets. You touched on the inflation reduction at being big, and that's relatively clear. But there's others that are less so like the buildings, renovation, regulation in Europe and so forth, do you need more government programs to drive this growth? Or does the return to the customer, is that enough in its own right to drive the growth?

Peter W. Herweck - Schneider Electric S.E. - CEO

The -- what we put out here is not a wish of more government programs and then it's going to come. We see what's there. And I think Aamir said it earlier, what we like is that politicians like to spend money. And we know the different politicians may spend it somewhere else, but we see certain regulation coming, and then we're trying to adapt and this is really different from market to market.

I gave the example of California, where certain regulation is out there. Now is that relevant for every house that's going to be built in California? Yes. Is that going to be relevant for us in every house? Maybe not. So we're trying to focus there on the high end because the high end is good for us. It's good for you. And then when we go into Europe, there is different regulations sometimes in different countries. I'm not -- even so I'm German. I'm not so clear how the heat pump has really landed in Germany. But we know what it means to the panel. And so from that perspective, we need to be agile with those.

What's very clear is with the increase also of energy cost. And I don't foresee that to go down in the next couple of years. There is a lot of kind of last euro spend in energy efficiency. Listen, for example, I live in Switzerland. I haven't seen so much solar and so much e-vehicles that are put into the market as it was in the last year, people want to become independent of external forces into their residential areas. And then you've seen it for the large facilities like this one, people have long-term plans, and we're helping in their long-term plans. And there, we have good visibility on what's going on.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Ben?

Benedict Ernest Uglow - Morgan Stanley, Research Division - MD and Head of European Capital Goods Equity Research

Benedict Uglow from Morgan Stanley. I keep coming back to the strategy issue within automation. And Peter, I know you know this deeply. But -- and Aamir talked about North America and the opportunity. And those opportunities are in big, big, big projects in stuff like battery and EV, you've called it out yourself but you are significantly subscale in PLC, I would argue globally and in particular, in North America, so what can you do to actually enhance that position? I realize there are not obvious properties from an M&A standpoint. But the market leaders expanding capacity dramatically. Rockwell announced a big increase in their investment yesterday. So what can you do to really beef up what you have in the PLC and the traditional boring hardware domain in the core markets because that is a clear weakness in the portfolio?

Peter W. Herweck - Schneider Electric S.E. - CEO

So -- and I appreciate the question, Ben, as you know, for many years, we've been discussing automation. As I said, our automation franchise is very distinctive. If you -- if we put this a little bit into perspective to kind of think about this and it's much different to some of the other players you are thinking of, I would imagine, the -- roughly 50% is process and hybrid market and 50% is in the discrete world.

Now in the process and hybrid market, we have a pretty strong position with our DCS system, with our safety system, with the connection to AVEVA, with our cybersecurity offers that we've talked about, I think 2 Capital Markets Days back, this has developed to a very nice multimillion business for us, very sticky with the clients. So that's 50% of it. And there, it always depends where do you have investment. Who is going to win some projects on a quarterly basis? This goes up and down. We look at the pipeline that we have and compare this on a longer term with our competitors. I'm quite confident with that business in combination with what we have to deliver in AVEVA.

Now if you look on the more discrete side, that's probably 50% product and 50% is more OEMs and PLC solutions. Now the -- on the product side, it's a great franchise. I like it a lot.

If you then look at the rest, are we smaller than the 2 others in respect to the number of PLCs we're selling? Yes, but not substantially. I would say, could I double and then come there? Yes. But should this be the focus for a couple of percent of the business? We have picked the markets where we can be very successful. So we stayed out of automotive, where you go into powertrain operations, where you go into the body shops and stuff like that. We stayed away for 4 years because that market was taken.

And the same for quite some of the discrete manufacturing facility. So first tier, second-tier suppliers to that in aerospace, in automotive. If you go to markets where good food and beverage, high-speed motion, very excellent. So it's quite distinct the business. By the way, as I said, 2022, we're just scratching EUR 8 billion. Last time I checked, in Milwaukee is not there.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Daniela?

Daniela C. R. de Carvalho e Costa - *Goldman Sachs Group, Inc., Research Division - MD and Head of the European Capital Goods Equity Research Team*

Actually, a question back to the margin. And if I recall correctly, one of the slides on AVEVA had the tailwind from AVEVA margin significantly increasing already in '24 with less of a headwind. And then the '26 bar, I don't think had a headwind from the transition. So wouldn't that make for a margin path on your 50 basis points that is more front loaded than back-end loaded? Or what are the counterbalances that one should think of?

Hilary Barbara Maxson - *Schneider Electric S.E. - CFO*

I spoke about it a bit. So -- and actually, Caspar spoke about it also. So on that slide, we showed the AVEVA transition to subscription. We also have the rest of the portfolio. So the energy management software with RIB and ETAP, that's behind in the journey and we'll be accelerating now in terms of that transition to subscription.

AVEVA, for sure, we expect in that '26, '27 time frame that we should be through the big impacts in terms of revenue and, of course, then just straight down to the bottom line in EBITA. With -- I think Caspar talked about the fact that we think that we can do the acceleration at the other 2 businesses fairly quickly as well. So we have some different dynamics with the pickup in AVEVA, but more transition to subscription in the early years with ETAP and RIB without any doubt, software will be a strong contributor in the back end.

And then at the same time, we have the systems business that's picking up. You can see how that's been picking up throughout 2023. And you can infer, I think based on everything we've said here that, that pickup will continue into 2024 and beyond. So we have those 2 different aspects that are coming together. Even I can't know what the timing it will be exactly perfectly but probably more contribution from the software in the last couple of years.

Amit Bhalla - *Schneider Electric S.E. - SVP Head of Investor Relations*

And the 2024 guidance in February. Alex?

Nicholas James Green - *Sanford C. Bernstein & Co., LLC, Research Division - Senior Analyst*

It's Nick Green here from Bernstein. A different question on your competitive advantage, please. You have probably 2 flagship software assets, the heavy process, digital twins with AVEVA and then the operational data historian with the OSI business. Maybe your RIB, your ETAP and your other software, they are good businesses, but they don't have quite the same market credibility. So -- or maybe market positioning is a better way to put it. Can you describe it in your plan, how you intend to replicate that top draw software expertise in the existing flagship assets across these other businesses you're targeting?

Peter W. Herweck - *Schneider Electric S.E. - CEO*

No, thank you very much for the question. Certainly, you picked 2 flagships. I would add a third one, which is the Wonderware franchise is on the operational side. Those are the 3 big franchises that are in AVEVA. Now you go out in the electrical world, I think everybody is envious about ETAP. It is a great, great, great franchise that has not the global expansion that we would like to have, it is a very technical software, and that's why it's going to be very good that with the collaboration with the Schneider offices around the world that will help open doors and then the global footprint that AVEVA brings to it and then bring it on 1 platform to make it easier to subscribe, I think it's very good.

One example, as I talked about the nuclear earlier, there's no software out there that actually is certified to go into nuclear. Every nuclear player we are talking to, they love ETAP. And the -- I think that we'd also be willing to pay a little bit more to keep it and put it on subscription.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

Right. We go back -- to the back of the room, please. Alex?

Alexander Stuart Virgo - BofA Securities, Research Division - Managing-Director

Alex Virgo, Bank of America. I wondered if you could just talk a little bit to the attention of the cadence of this 4-year period.

I think the broad tailwinds around electrification and digitalization, et cetera, I think everybody subscribes to. The concern is, obviously, what's going to happen in the next 12 to 18 months, particularly around some of your big construction end markets. So the implication, of course, is that you have quite a hockey stick effect if the near term is depressed. So I wondered if you could talk a little bit about to the visibility.

You mentioned, Hilary, the backlog in systems. I guess, data centers is clearly a very strong part of the growth in the near term. Just trying to understand the tension, and I appreciate you don't want to give annual guidance, but it feels quite difficult to reconcile at the moment.

Peter W. Herweck - Schneider Electric S.E. - CEO

But we can go back to our Q3 results that we've mentioned. The -- where we said that, in particular, the OEM market shows some weaknesses predominantly started in China, then also in some of the key markets in Europe.

The OEM market has always been a volatile market. And of course, through COVID plus the supply chain prices, this has actually in the amplitude been a little bit augmented and so plus the -- whatever is in the supply chain with us, with some of the partners to the OEM clients in their backlog is something that one needs to understand in depth. These cycles have traditionally had a certain period over several quarters. I would anticipate that, that's going to be similar this time around.

From that perspective, I'm not worried about over the whole cycle of what's going on here. If we talk about our visibility and I've been asked in the break, what's your visibility into the project pipeline, for example, in the U.S., it's pretty good. I don't know, Aamir, you want to give a couple of comments to it?

Aamir Paul - Schneider Electric S.E. - EVP of North America Operations

Yes. Just to add, Peter, as you said, we have the highest visibility we've ever had on data centers, as Hilary mentioned, it's well into 2025.

But the Compass contract was 5 years. It's not the only one that we have signed for longer than a 3-year period. So not only is the organic backlog visibility high, but also these contract structures give us more certainty on systems business for some time.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Gael?

Gael de-Bray - Deutsche Bank AG, Research Division - Head of European Capital Goods Research

Gael de-Bray from Deutsche Bank. Can I actually start with the Compass contract you've just announced, the EUR 3 billion, the loss of what, 5 years? I mean if I do the math, I think that's nearly equivalent to about 20% of your targeted growth over the next 4 years. Just checking this -- the masses, well, based on truth and logic in math.

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Peter W. Herweck - Schneider Electric S.E. - CEO

It's not a new customer. We've had them before. But it is a growth.

Gael de-Bray - Deutsche Bank AG, Research Division - Head of European Capital Goods Research

That's still quite substantial, right?

Peter W. Herweck - Schneider Electric S.E. - CEO

What's really substantial is you have one of the biggest Colo providers, a company that's rapidly growing and that understands that this will become a supplier's market. They've secured capacity, and they have industrialized it. Also, when we talk about the systems business, Hilary has talked about it, we're moving from what is called engineer to order, ETO, to more of a configure to order. So it's industrializing these things.

I'm an engineer so I tell our people, don't give a blank sheet of paper to an engineer because he's going to design something great for the customer, and you give him another sheet of paper, he's going to design something great for the next customer. That's what's ETO. With those clients, we have a configure to order, so it's industrialized and so forth. So we actually have machinery, cut the cable, comes right out of our ETAP system where we do the electrical design that needs to go into this data center. It goes down to the machine, we cut the cable. It's really industrialized in factories that we've built in El Paso, Texas and also in neighboring Mexico where we have all the land use rights that we need if we want to build in El Paso 5, then we build in El Paso 5. I don't need the land. I have it. I just replicate. So I don't need to make a lot of noise for that stuff. These -- there is quite some industrial systems business in front of us.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Can I take one at the back there, from back to you, Gael.

Nicholas James Green - Sanford C. Bernstein & Co., LLC, Research Division - Senior Analyst

It's Nick again here from Bernstein. It's a question for Hilary. 18% software and services in 2022, you gave us some growth figures in tax form on this slide. Can you give us a sense by 2027, what that number could rise to, please?

Hilary Barbara Maxson - Schneider Electric S.E. - CFO

Yes. So this time, we didn't give the in-depth detail into the various pieces of the digital flywheel. I think you can start to infer though -- what we have happening is that we have the software and services business growing at double digit. Therefore, we would expect faster than the growth overall. We also have systems growing at double digit. So the growth within the flywheel may not be as high as it has been in the past, but we still expect to see good growth with systems and services within the flywheel. And the systems business for us, a big focus and something that we've seen more and more on is higher and higher attach rate, and we gave it in a few of the slides kind of the mix of what we have across the business models, but a higher and higher attach rate for services and for systems tied to that system -- sorry, services and software tied to that systems business.

So I think as we progress forward, we would expect even further acceleration in those 2 business models tied to this big mountain of systems business that we see in front of us today.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Maybe we'll take a couple more. Andrew?

Andrew James Wilson - *JPMorgan Chase & Co, Research Division - Analyst*

It's Andrew Wilson from JPMorgan. Just a question on the R&D. Obviously, big plans to continue to expand that. And I guess, I think you touched on it a little bit in terms of the sort of KPIs that you look at. Can you just flesh them out a little bit and how they've been trending over time? I'm just interested in what feels like quite quickly evolving markets, there's obviously the risk that R&D burden goes up, but you're not necessarily able to deliver the value because the product cycles accelerate. So really interested, just a bit more color on that, please.

Peter W. Herweck - *Schneider Electric S.E. - CEO*

Yes. The -- maybe have 2 or 3 KPIs that we're looking at is quite -- we've built out quite a consistent system now throughout the company to see how we're successful with the various programs. That's how we call them that we're driving. So one is in the business as we look at the Vitality Index. Meaning how much of the revenue is generated with products that have a certain age group. And that Vitality Index needs to go up. It means that we're successful in bringing new products to the market. For the individual products, of course, we do look at NPV analysis. And then to understand also when is the payback period and stuff like that.

And then we're following quite closely a dedicated process from not only the development but also introducing to the market. We make them what we call hero offers. We select the markets. We follow closely whether we reach the units of our desire, whether we meet and exceed them. And if not, we can take respective actions accordingly.

I don't know, Olivier, anything to add?

Amit Bhalla - *Schneider Electric S.E. - SVP Head of Investor Relations*

Alasdair?

Alasdair Leslie - *Societe Generale Cross Asset Research - Equity Analyst*

Alasdair Leslie, SocGen. Just a couple of questions really on the margins. Just on the systems kind of gap to the rest of the kind of portfolio margins, just how much perhaps you can sort of still close that? I think you said you closed that gap by 1/3? How much can we still close that going forward? And then on the SFC ratio, I think we're around 23% at the moment, if I'm not wrong. I don't think you gave a target for that, but I think sort of historically, it was maybe between sort of '21, '22. Could we still see that come down by maybe 100, 150 basis points?

Hilary Barbara Maxson - *Schneider Electric S.E. - CFO*

So on the -- sorry, what was the first question? Yes, sorry, on the systems closing of the gap. So in terms of the closing on the gap on systems, I'd mentioned that we've closed the gap by more than around 1/3 over the past few years. We do have a particular program in systems where we expect to see a continuation of closing of that gap closer to the group gross margin.

That said, we would never expect that our systems business, where we do business directly with the end customer. We announced, for example, EUR 3 billion 5-year contract. We would never expect that, that would be at the same gross margins as some of the more diffuse business we have in the rest of the group or in software, for example, it's just a different business model.

But we do expect over this time frame, that '24 to '27, a bit more closing of that gap. And the business -- the other thing that we focus on is the business is definitely less OpEx-intensive. So at the level of the adjusted EBITA itself, we actually have the opportunity to take quite a bit of systems business that doesn't end up impacting our overall adjusted EBITA margin.

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Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. Eric?

Eric A. Lemarié - CIC Market Solutions, Research Division - Financial Analyst

Eric Lemarié, CIC. One question for Peter, you're CEO since last May. And I was wondering whether you could tell us -- if you could tell us whether you have been positively or negatively surprised by some particular issues within Schneider since you are the CEO. And I was wondering to -- since you're the CEO of Schneider, how much of your time has been dedicated to meetings with clients, as a question because you're an engineer.

Peter W. Herweck - Schneider Electric S.E. - CEO

Thank you very much for the question. I appreciate it. The only surprise was it's a lot of work. I knew that before, joke aside, I don't want to spend the time on joke. No, I've not been negatively surprised. I've been 7 years in the company. And the -- Jean-Pascal and I have worked very closely together in those 7 years. And everybody in the ex-com, we've been colleagues and have a very good working relationship together.

Other issues? There's always an issue every day, and you go, you attack it or somebody in the organization does it. So I think a well-prepared company, number one. Number two, a well-structured handover and from that perspective, it's -- I'm pleased, and we have potential. To how much time do I spend with the client, I actually have a pretty solid understanding of my calendar on the 15 minutes every day. So I can give you a pretty precise answer. But my usual answer to the colleagues is a customer a day, keeps the doctor away. Also for the CEO, if you spend a customer a day, that's more than 10% of your time. The -- I can tell you, and there's publications out there, that's 3x the average.

Amit Bhalla - Schneider Electric S.E. - SVP Head of Investor Relations

All right. I see we're sort of 3 minutes -- we're 3 minutes over. We have to call it a day here for the Q&A. Thank you, especially for the folks on the webcast because for them, this is the end of the Capital Markets Day, at least for the ones who've been watching on the screen. So we'll just give that a minute. Thank both of you, and I'll be giving you the instructions for what's going to come next.

Peter W. Herweck - Schneider Electric S.E. - CEO

Thank you.

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