**Bentley 214Q and 2021 Operating Results and 2022 Outlook Transcript**

**Carey Mann:** Good morning, everyone. And thank you for joining Bentley Systems' Q4 2021 Operating Results and 2022 Outlook webcast. I'm Carey Mann, Bentley's VP of Investor Relations. On the webcast today, we have Bentley Systems' Chief Executive Officer Greg Bentley, Chief Financial Officer Werner Andre, Chief Operating Officer Nicholas Cumins, and Chief Investment Officer David Hollister.

This webcast includes forward-looking statements—made as of March 1, 2022—regarding the future results of operations and financial position, business strategy and plans, and objectives for future operations of Bentley Systems, Incorporated. All such statements or made in or contained during this webcast, other than statements of historical fact, are forward-looking statements.

This webcast will be available for replay on Bentley Systems' Investor Relations website at investors.bentley.com. After our presentation, we will conclude with Q&A. And with that, let me introduce the CEO of Bentley Systems, Greg Bentley.

**Greg Bentley:** Hello!

Stepping back to reflect on our first full year as a public company, it feels to me that our "Bentley" is now running on more cylinders than ever: back from intermittent pandemic disruptions to where not only BSY, but also our users and accounts have reinstated (if redefined) "business as usual"; in fact, with confidence that after the pandemic, its impetus to *going digital* in infrastructure engineering will remain permanent, as the needed and now actual commitments to infrastructure renewal and resilience require increasing our accounts' workloads at the same time that they face limits in increasing their workforce capacity; with the emerging opportunity for infrastructure digital twins having been kickstarted by the pandemic imperative for *going digital* to substitute for work on site; while at BSY, we have (since going public) significantly improved our "go-to-market" execution both within existing enterprise accounts and to reach new SMB prospects; and finally, as we have completed platform extension scale acquisitions to fully address the world's unprecedented consensus ES(D)G priorities for mobility, environment, and grids.

Our tone of business discussions to date have centered around the contrasting color tones between the still-cyclically-curtailed capital projects in the industrial/resources infrastructure sector on the one hand, and the relatively impervious momentum in our mainstay public works/utilities infrastructure sector on the other hand.

Particularly, as we have so much to cover today, it fortunately simply suffices this quarter to report that nothing has changed appreciably by sector. The EPC firms' application usage has not yet turned upward but has ceased to get any worse. As they're essentially all on our E365 daily consumption program, they and we will benefit as soon as higher energy prices spark net new Capex starts, including for renewables and storage.

Starting with operating results reporting for the quarters of 2022, we will break out, from the traditional industrial infrastructure sector, our revenue apportionment for a separated resources sector, where, in addition to this renewable energy upside, Seequent is gaining vigorously—at a pace unprecedented for us—in the robust market for *going digital* in mining to meet the same energy transition demand.

I think the most informative view of our overall business tone comes through tracking our "book" of subscription growth and net retention. Here is a view, from before and through the pandemic, of our reported ARR growth and of our reported NRR, which, as a comparison to a full year earlier, naturally lags ARR growth and is lower by about the 2% of ARR growth, which comes from new names each year.

ARR growth suffered starting with the first quarter of 2020, as project stops and work capacity disruptions immediately affected our daily- and monthly-reset subscribers, including the EPCs. And that dip in ARR growth, which lasted several quarters in 2020, is inversely echoed in the subsequent sequence of consequently higher ARR growth rates, as all users went back to full-time work. It seems a natural surmise that lagging NRR will likely continue to increase.

To look inside these numbers, here again is the 21Q3 breakdown of ARR by consumption model.

In 21Q4, our E365 ARR grew steadily, in the proportion shown here, including as we upgraded further accounts to E365 to reach this breakdown of ARR at the end of 2021, and highlighting our SMB accounts, by our definition spending less than $100K with us annually.

All others are at least eventual prospects for E365, for years to come at our measured pace of such upgrades. We offer E365 upgrades by invitation to selected accounts upon their annual renewals so that we can assure that we continue to have sufficient and appropriate enterprise success resources to deliver the included Success services.

In substantiating why these services make E365 so important to BSY and to our accounts, I will cite our annual measurement, within ARR growth and NRR, of application mix accretion. We have tended to assess the pandemic-affected tone of business in terms of days of usage of any and all of our applications. But we grow ARR, as we add more value, when a user upgrades their BSY application usage to a more specialized BSY application in order to improve the quality and productivity of their work. We annually calculate this application mix accretion as the average daily usage value, abstracting from any price changes, across all application usage during the year.

As we continuously develop and acquire more specialized applications for our comprehensive platform, I believe this advancement opportunity will be an endless progression. For instance, a civil engineering user of MicroStation, who is working on roadway projects, will be much more productive upon upgrading to OpenRoads, which more than doubles our ARR per such application usage day. The same civil engineer may remain a prospect to subsequently upgrade to our yet more specialized—forthcoming—OpenTunnel application. A wind farm designer who had been using MicroStation, in the absence of a specialized modeling product, should advantageously upgrade to our new OpenWindPower application, increasing our ARR per such day of application usage by a factor of about 30. A structural engineer at an EPC firm, now working on an offshore wind platform, should upgrade from our general-purpose structural analysis application STAAD to our specialized SACS offshore structure application to incorporate the analysis of wave motions, increasing our ARR per such application usage day by a factor of over 1.5.

During 2020, our application mix accretion was about 2.5%, and I'm pleased to say that for 2021, our application mix accretion increased to over 3.5%, a significant component of our increased ARR growth.

I credit this to our User Success organization's expansion throughout 2021. Our User Success colleagues can apply analytics to our cloud-based functional logging of all application usage to identify these individual upgrade opportunities, to bring them to the attention of the appropriate existing users of our less specialized applications, and to help them to take full advantage.

Most of the early growth in our User Success force was as a result of transferring and consolidating, from various other supporting functions, our colleagues with substantive infrastructure engineering experience and credentials.

Continued further expansion is afforded by the so-purposed upgraded ARR implicit in E365 daily application pricing, and, therefore, E365 accounts are most intensively served by our Enterprise Success teams.

Validating our prioritization of E365, and this associated Enterprise Success resourcing, our 2021 application mix accretion was almost twice as high within E365 accounts as within non-E365 accounts.

And in terms of underlying overall application usage trends from 2019—so as not to dwell on pandemic-induced volatility)—E365 accounts, excluding the uniquely impacted EPCs, performed significantly directionally better.

Lastly, in working to establish a broad baseline for our enterprise accounts' general sentiment, among those surveyed in both 2020 and 2021, the E365 accounts skewed toward much stronger recommendations in our favor.

This slide, originally from our IPO deck, highlighted that such accretion within our existing enterprise accounts could reach two-thirds of this SAM to the extent that we could grow each account to the BSY run rate intensity we had already achieved for the most BSY run rate-intensity accounts in each size tier, within each of the project delivery and owner-operator categories.

So, given these new initiatives in E365 and Enterprise Success since IPO, how far have we progressed in this run rate intensity in enterprise accounts?

Starting with the top owners, the BSY run rate intensity for each is calculated in relation to the net asset value of their fixed infrastructure assets. Reflecting our efforts to strengthen our offerings' lifecycle comprehensiveness across infrastructure operations, from 2019 to 2021, the BSY run rate intensity within the BI 500 increased, in constant currencies, by 19%.

Next, as to the project delivery accounts that are Engineering News-Record Global Top Design Firms, the BSY run rate intensity for each is calculated in relation to their design billings, as reported to ENR. Excluding Chinese firms, where the history isn't consistent, from 2019 to 2021, their BSY run rate intensity increased, in constant currencies—reflecting their rate of *going digital* in BSY spending per dollar of their own design billings—by 12%.

To conclude as to enterprise accounts, what I've covered are factors behind my belief that continued expansion of our E365 program, and the Enterprise Success activities that support it, will relatively improve our ARR growth rates.

But what about our potential growth within small- and medium-sized businesses, where our products are just as suitable but we need to go to market in ways that are new to us?

We commissioned market research firm Cambashi, who had recently updated our TAM study that starts by counting the world's infrastructure engineering professionals, to help us quantify the SMB prospects. We determined to consider only project delivery firms, since owner-operators of infrastructure, given its capital intensity, can hardly be SMBs. We next apply the typical BSY run rate intensity for project delivery firms to translate our cutoff of $100K per year to correspond approximately to firms with, at most, 50 infrastructure engineering professionals. What proportion of our potential market do such firms represent?

Given limitations on available data, Cambashi could answer this only for engineering and architecture firms, and only for certain countries. So here are, by bubble size, the proportions of these infrastructure professionals in SMB, compared to larger firms, in Germany, in Japan, in South Korea, in the U.K., and in the U.S.

As you see, market structures evidently vary so much that one can't safely generalize across the world. But for instance, in our two largest markets, the U.S. and the U.K.—and in total for these 5 countries certainly representing much of the world—there are even more infrastructure professionals in SMB prospects than in enterprises. These results encourage us to continue the priority we have placed on the SMB opportunity since the IPO increased our profile and led us to focus more on marketing. During this time, we have reallocated much of our pandemic-caused cost savings, in travel and events, into SMB go-to-market initiatives.

In particular, see here our 2021 quarterly progression of staffing levels for sales and fulfillment of our Virtuosity subscriptions, which combine annual term licenses with expert availability and are targeted at SMB new business. The results were reflected in this promising trend of Virtuosity's new business growth by quarter during 2021. Most encouraging is the improving ratio of new business growth to headcount resources, as we continue to climb the learning curve in reaching and converting SMB prospects.

To summarize, here's our resulting progress in total annual NBG for SMB accounts, inflecting upward to represent now 41% of our overall NBG in 2021. This reinforces our belief that much more SMB upside is reachable.

For more operational perspectives on our go-to-market activities, with those responsibilities having been added for 2022 to his product leadership roles, over to Nicholas.

**Nicholas Cumins:** Thank you, Greg.

We updated our product portfolio overview in the 10-K report to reflect the important product advancements we made in 2021.

We continued to build on the foundation and extend the comprehensiveness of our product portfolio, in particular: engineering applications, with our modeling and simulation products for engineering practitioners; enterprise systems, for engineering collaboration, construction, and asset performance, supporting digital workflows across the entire infrastructure lifecycle; geoprofessional applications, with the combination of Seequent, original Bentley geotechnical products, and subsequent acquisitions for the subsurface; industry solutions, with industry-specific capabilities, to advance infrastructure for mobility, environment, and grids; and, at the center of our portfolio, iTwin, our infrastructure digital twin platform powering an increasing number of Bentley and third-party products.

I would like to highlight the performance of SYNCHRO, in Q4 and throughout 2021.

SYNCHRO is our construction management solution, which we have extended to be uniquely suited for heavy civil projects. As you might recall from Greg's comments during the Q3 operating results, with SYNCHRO, we are taking a distinct approach to construction. Whereas some of our peers are focusing on automating 2D workflows, our focus with SYNCHRO is on helping the industry advance to 4D by leveraging digital twins.

The industry has validated our approach, with accelerated growth in 2021 across the spectrum of construction organizations, including SMB. SYNCHRO has been adopted, so far by 58 of the ENR Global 100 Top Contractors, and by 77 of the top 100 contractors outside of China.

Now, let me take a moment to explain what we mean by 4D. SYNCHRO, powered by iTwin, allows construction teams to create a 4D construction model by leveraging 3D models from the design phase and adding time, the fourth dimension. It is used for construction planning and scheduling to communicate with key stakeholders and collaborate with trade partners. It is also used in project execution to track progress, as well as empower construction teams with the information and the context they need to make informed decisions.

SYNCHRO featured prominently at the *Year in Infrastructure* in 2021, with many winners of the *Going Digital Awards* crediting SYNCHRO. I would like to highlight one winner.

Replacing the aging bridge on East 138th Street in New York City may seem uncomplicated at first glance. But, located one mile south of Yankee Stadium, it is in a highly congested area, and the management of traffic during construction is a significant quality-of-life issue to the local community.

The New York State Department of Transportation, the owner of the bridge, opted for a digital twin solution to manage the complex sequence of traffic lane closures. They used SYNCHRO to create a 4D construction sequencing model and engaged with stakeholders to take important decisions without having to work manually through more than 200 plan sheets.

This project sets a new standard for what can be accomplished by DOTs by *going digital*. You can read more about this project in the *2021 Infrastructure Yearbook.*

From a regional standpoint, our new business growth continued to accelerate in Latin America, primarily driven by additional usage in our E365 accounts, in particular of OpenFlows, our product line for water infrastructure.

The new business growth also accelerated in Middle East, benefiting from renewed investments in infrastructure, including industrial and resources.

And as expected, Australia and New Zealand bounced back in Q4, benefiting from renewed investments in both public works and in industrial.

2021 began as a difficult year in China, as mentioned by Greg in previous calls. We confirmed a strong rebound of new business growth in Q4, but not enough to close the gap for the full year. We take the long view in China. It remains an important growth opportunity for Bentley, given its massive investments in infrastructure. And the biggest projects in China continue to leverage our technology to innovate. Six of 19 winning projects of the *Going Digital Awards in Infrastructure* were from China.

A few words about Seequent now, which had a great Q4 and a great year 2021. Seequent had strong performance across all regions. The fastest growing region over this quarter was Asia Pacific. South America was its second fastest growing region, followed by Europe, Middle East Africa, and North America. In all these regions, Seequent benefited from continued investments in mining, required to support the world's energy transition.

In addition to mining, Seequent's growth remained strong in civil. We expect that growth to accelerate over time, as we continue to drive synergies with the rest of Bentley.

With Seequent, we are offering the most comprehensive product portfolio for geoprofessionals. We completed four additional acquisitions in 2021 to complement that portfolio, the most recent one being AR2Tech in December for geostatistics and spatial data analysis.

Leapfrog, the original product of Seequent used to model the subsurface, led the growth in Q4. You can think of Leapfrog as a foundation product for geoprofessionals, on top of which we offer additional products to provide a better understanding of the subsurface. Case in point, we doubled the revenue for two acquisitions made in 2021: Imago, to capture and process digital images of drill cores and chips, and MX Deposit, to manage drill hole and other field data.

In order to illustrate how these products come together, I would like to highlight First Majestic.

First Majestic is a Canadian company, which owns and operates four mines in Mexico and the U.S. First Majestic uses Seequent's Leapfrog Geo to develop a realistic representation of the geology at each site, and Leapfrog Edge to aid resource estimation. And when geological models are changed, resource estimates also change dynamically. Seequent Central allows the company to publish models and resource estimates so they are available to everyone in real-time, on site or remotely, including resource geologists based in Canada.

First Majestic recently implemented Imago, integrated with Leapfrog Geo, to make more confident, profitable exploration and mining decisions based on digital images of drill cores and chips. They are also using GeoStudio to evaluate the slope stability of tailing dams and filtered tailings, as well as PLAXIS for deep excavations and tunneling analysis.

This is just one of many situations that underscore the potential for portfolio expansion and synergies subsurface.

Now, I would like to hand back to Greg to talk about corporate developments.

**Greg B:** Many thanks, Nicholas. And now, on to corporate development, where I would also like to step back for the big picture.

First, priorities we all share and need to track are environment, social, and governance goals. Our new, state-of-the-art website here brings together everything you would like to know in one place.

But our ESG website emphasizes that at BSY, we are almost uniquely able, and motivated, to go beyond what's conventionally reported.

Our greater contribution is to empower infrastructure engineering, through *going digital*, to profoundly advance the UN Sustainable Development Goals, which we also all share. My way of keeping this in front of mind for BSY colleagues is to instead think in terms of "ES(D)G."

Infrastructure engineering is literally the limiting factor in achieving, especially, the SDGs highlighted here. So, at BSY, we can assess our corporate development in relation to three ES(D)G priorities. Our business, our investments, and our current initiatives closely align with the advancement through *going digital* of the world's mobility, environment, and grids infrastructure by our users.

So, the most effective way to understand our ES(D)G "handprint" is to review our *Infrastructure Yearbook*, which annually presents our users' nominations for *Going Digital Awards*, the finalists and winners judged by international expert juries, and our own Founders' Honorees. The physical 2021 yearbooks will be with you shortly, but here online, you can now search—for instance, by each of these ES(D)G priorities—and interactively view these multimedia case studies.

The mobility priority has been our sweet spot, representing the largest proportion of BSY revenues for roads and bridges, rail and transit, and municipal engineering.

But also, within the "green CAPEX" funding needs that we referenced in this way last quarter, mobility is also the largest priority, as it is within the actual funding allocation of the U.S. Infrastructure Investment and Jobs Act—the IIJA—which we also referenced in this way last quarter, and which is generally representative of the new government infrastructure investment commitments everywhere in the world.

Here are the *Going Digital Award* winners in mobility categories. And here are the additional projects honored by our founders within the mobility priority. Please note their global diversity!

Turning now to the environment ES(D)G priority, this also represents a very significant portion of our business, including, along with water and wastewater, renewable energy generation, and Seequent's foundation for mining and for environmental modeling and monitoring.

And within "green CAPEX," the direct environment ES(D)G priority is, of course, significant, as within the relevant segments within the IIJA.

Here are the *Going Digital Award* winners in environment categories. And here are the projects honored by our founders relating to the environmental priority.

Now, in addition to these awards from BSY, I would like to highlight a project that resulted in a just-announced award to BSY, as the Microsoft Asia Pacific Region Social Impact-Sustainability Changemaker Partner of the Year. The award recognizes the role of our iTwin platform, applied with Microsoft's Azure IoT services, in deploying digital twins to improve the operations of offshore wind farms in South Korea. This work was done for Doosan, the company which develops not only the wind farms, but also the turbines themselves.

As usual, we think the credit should go to Doosan, but, like Microsoft, we are proud to empower sustainable development goals.

Lastly, for the grids ES(D)G priority, this has already represented the portion of our business shown here, prior to the just-closed acquisition of Power Line Systems.

And within "green CAPEX," the Grids ES(D)G priority is acknowledged as requiring very substantial new investment, as indeed funded to this significant extent within the IIJA.

Here are the *Going Digital Award* winners in grids categories, and here are the additional projects honored by our founders relating to the grids ES(D)G priority.

I would like to reprise BSY's corporate development as a public company by updating these self-descriptive tiles that we've used in every introductory presentation starting with our IPO roadshow.

Though Ray Bentley has now joined Barry Bentley in retirement after 38 years—during which Ray never took a sick day—our founders all remain board members and very enthusiastic shareholders, as you can see from our control group's SEC filings.

Our platform "DNA" has enabled our integrated comprehensiveness, starting with MicroStation as the foundation for our modeling and simulation applications, followed by ProjectWise and AssetWise systems, respectively, for project delivery and asset performance, and now the iTwin platform for digital twin cloud services—which has led us to, what I regard as, conclusive global market leadership in infrastructure engineering software for mobility.

But for the overall environment ES(D)G priority, there had not been a conclusive such market leader until last year, when our wherewithal as a public company enabled us to "leapfrog" into this tremendous opportunity through our "platform" acquisition of Seequent, enabling the integration of subsurface modeling and infrastructure IoT monitoring, including for water, flood, geotechnical, and seismic environmental resilience across mining and all other infrastructure assets. The momentum and potential are both unprecedented in our experience.

But the grid integration opportunity is, by consensus, the most urgent for the world—to address energy reliability and the constraining bottlenecks in renewable generation, storage, electrification, and communications that jeopardize economies and quality of life.

And here, our "platform acquisition" of Power Line Systems, also only possible as a public company, completes our existing platform's reach—from transmission through substations to distribution and communications.

This unparalleled constellation of our comprehensive portfolio for *going digital* across infrastructure engineering, and now across all of the world's ES(D)G priorities, supports our unprecedented confidence for 2022, and then beyond. I just don't see how we could be better positioned than we are now.

Despite ebbs and flows of geopolitical and regional economic concerns, our geographic diversification and balance, especially strengthened by Seequent's complementary footprint, imparts more resilience than ever.

Not only did we demonstrate dependable growth even through the pandemic, but we used resulting savings for the initiatives I've mentioned that are already increasing our rate of growth, including in our 2022 outlook.

We saw that early-pandemic disruptions in our users' work capacity somewhat reduced their consumption during 2020, with the knock-on effect of making 2021's year-over-year comparison appear relatively more favorable. Our outlook for 2022 is to accelerate growth from the compounded levels since pre-pandemic.

And in fact, from 2020 to 2022, we will add more than a digit—we expect, over 40%—to our annual revenues, mostly attributable to business performance, while also increasing our recurring proportion.

In covering our tone of business, I quantified the increasing BSY spending intensity we're achieving in enterprise accounts, at the same time as our new business focus on the ultimately perhaps even larger SMB opportunity.

Now, a company can presumably grow faster by spending more to go to market, at the expense of its operating margins. At BSY, our perhaps simplistic approach to this tradeoff is to internally commit to one margin percent per year of expansion in our sustainable margins—normalized for nonrecurring savings, in excess of their reinvestment, as in these pandemic years.

Subject to this operating margin constraint, at 33% for 2022, we will continue expanding the initiatives, which we have concluded, from experience I've cited, are serving to increase our long-term growth, all else being equal. This includes continued expansion of our User Success resources, especially to support expansion of E365 for faster accretion in enterprise accounts. And also continued expansion of our SMB-dedicated resources—supplemented by significantly increased SaaS and development expenditures—now that we're through our initial Sarbanes-Oxley systems freeze, on a new digital experience for the e-commerce self-service that SMB engineer prospects and users greatly prefer.

By putting that all together, I now ask David to introduce our new BSY investment organization and activities, and then to introduce Werner, his CFO successor, to go over our financial performance for 2021 and for our 2022 outlook.

Thanks!

**David Hollister:** Thank you, Greg. I do plan to shine a spotlight on our recent Power Line Systems transaction and our immediate priorities for PLS.

As a lead into that, let me quickly orient you to our BSY investments group and how we complement our core software business. Firstly, we continue to be quite active with our acquisition activities. Often, those acquisition activities surface or onboard businesses that are ripe to be initially incubated and/or accelerated outside of our core software business, or as a complement to our core software business. And we call these acceleration initiatives. Our BSY Investment Group also oversees iTwin Ventures, our corporate venture-capital fund focused on stimulating an ecosystem of infrastructure digital twin applications.

We also believe that digital twin adoption can be better enabled by an ecosystem of digital integrators and through our own Cohesive group and our Digital Construction Works' Digital Integrators.

I'll go a little deeper, starting with acquisitions, where I show here the chronology of a busy last 12 months in terms of acquisition activity. Our programmatic operating cadence of build versus buy yielded a robust pipeline of opportunities and continues to do so. We successfully closed 14 acquisitions during this period, of which 12 of them were of the programmatic nature—the smaller tuck-in deals—that are a part of that operational rhythm I've described. And it was also a year where we successfully closed on two particularly noteworthy acquisitions, which, for us, represent a new platform and/or are of a uniquely large scale as to be differentiated from our normal programmatic acquisition activities.

Specifically, that would of course be Seequent, which continues to perform very well as you heard from Nicholas and will hear from Werner, and Power Line Systems, as Greg just discussed. You will have also heard Greg describe our perspective on what he calls, ES(D)G, and each of our 2021 acquisitions is consistent with our key ES(D)G growth themes, either mobility, environment, or grid.

The scope of our investment ambitions starts early and extends through maturity in the lifecycle of a business. With our open source iTwin platform, we offer developer tools, support, and partner programs to entrepreneurs and businesses at all lifecycle stages.

As mentioned, at the end of 2020, we inaugurated iTwin Ventures, our corporate-venture capital initiative, whereby we're committed to invest up to $100 million to help stimulate an ecosystem of applications leveraging infrastructure digital twin technologies. It's been a busy and successful initial year for iTwin Ventures, and we've made several investments in early-growth and seed-stage businesses with promising digital twin solutions.

We've also seen significant opportunity to invest in seed, and even pre-seed, opportunities. In support of this, iTwin Ventures has sponsored our ecosystem sponsorship program that brings specific iTwin platform adoption commitments with the funding and support we provide. At the more mature end of the entrepreneurial business lifecycle is where we find acquisition opportunities. Certain of these acquisitions, we incubate further or accelerate with particular focus before fully folding them into the main of Bentley Systems.

Examples of this are our 2021 acquisitions of sensemetrics and Vista Data Vision, where the integration to provide seamlessly available IoT data to the iTwin's platform is relatively significant. Our Power Line Systems acquisition is another example of a more mature business that we're operating inside of our BSY Investments acceleration team.

So, as to Power Line Systems, we previously shared those expected details—these expected details when we announced our agreement back in November 2020. By way of a reminder or update, we did indeed pay $700 million, and we did indeed secure a unique structure that provides a tax-deductible step-up in basis that we present-value to be worth $90 million. We did exercise our option to pay all cash for the acquisition, which we funded with our senior secured credit facility, and Werner will speak further on this. We expected to close at the end of 2021, but the HSR process took an extra 30 days, resulting in our deal not closing until the end of January 2022. The delay will have an approximately proportionate effect on our expected revenues from PLS for 2022.

In terms of our immediate 2022 priorities for grid, Greg teed this up nicely. The intersection of the need to harden electrical grid infrastructure, the need to extend its reach, the need to improve it to accommodate alternative energy sources, and the availability of both private and public funding comes together as a ripe opportunity worthy of particular acceleration.

In 2022, we intend to increase the pace and scale of sales and marketing activities and invest for more significant geographic expansion. We'll also introduce a structural digital twin for utilities, and we will consolidate our structural communications and grid offerings into one group, in recognition of an increasing opportunity for co-location of telecom equipment with high-voltage power structures. Hence, PLS, SPIDA, and our OpenTower businesses are combined into what we call our grid integration group.

I'd like to close with a brief discussion about Cohesive, our digital integrator business for which we have two primary ambitions. Firstly, as an infrastructure lifecycle digital integrator, we aim to demonstrate a growing and healthy business model in hopes of stimulating a broader ecosystem of such digital integrator businesses, including amongst our current user base of engineering firms. Next, we ultimately seek to create stronger Bentley Systems software product pull through and digital twin adoption.

We launched Cohesive starting in May 2020, with the acquisition of Cohesive Solutions, a professional consultancy firm organized around leveraging IBM Maximo for transformational outcomes. We followed this up by adding four more acquisitions of professional services consulting firms and integrating a sixth existing Bentley Systems asset performance consulting business. After a successful integration push to integrate and align these businesses, a project we internally called One Cohesive, we are seeing scale-leverage efficiencies and a healthy and growing backlog of new business.

Just a couple of recent new business wins include Evergy, where we leveraged our existing relationship to secure a new, eight-figure contract for the design and delivery of additional maximum solutions, as well as a collaboration with Thales for a maximum solution for the Canadian government.

Infrastructure asset operations and optimizing as-built infrastructure assets is an ideal vector for introducing infrastructure digital twins and iTwin technology pull-through. I highlight here two examples where our Cohesive team is deeply embedded in delivering solutions for some of the largest infrastructure projects in Europe: the U.K. National Highways Smart Motorways Program and the HS2, High-Speed Rail Project from London to Manchester.

So, that's what we're up to in BSY investments, and Werner will next take us through our 2021 operating results and our outlook for 2022.

**Werner Andre:** Thanks, David. I'll start with our revenue performance.

Our fourth quarter revenues of $267.7 million grew 21.9% over the same quarter last year. Most of that growth comes from subscriptions, which grew 25.2% over the prior year. We attribute the acquisition of Seequent to represent just under 13%, foreign currency headwinds offset just under 2%, and, therefore, our business performance comprises just over 14% of growth on a constant currency basis.

Our perpetual license revenues are down again by $2 million for the quarter, relative to the prior year, and represented approximately 7% of total revenues.

Our professional services revenues are 9% of our total revenues and increased $5 million over the same quarter last year, representing a growth of 25%. The continued growth in our service business is attributed to our investments into the Cohesive digital integrator businesses, which David just discussed.

Full-year revenues are $965 million and improved 20.4% over the prior year. Similarly, subscription revenues improved by 19.7% over the prior year, with about 2% coming from currency tailwinds, 6% from Seequent, and just under 12% from business performance.

Perpetual licenses are down $4.3 million for the full year, reflecting preferences for subscriptions, and professional services are up about 53% for the full year, reflective of Cohesive.

Moving on to recurring revenue performance. Our last 12-months recurring revenues increased by 19.7%. The mid-year onboarding of Seequent contributed about 6 percentage points of this improvement.

Our deep and long-standing relationships with our accounts are again proven with our 98% account retention rate, and with our constant currency recurring revenues net retention rate now increasing to 109%.

Our ARR is up 26% over the same point in time last year. As mentioned in prior quarters, Seequent onboarded 13% of that growth, and since this is a constant currency metric, business performance accounts for the remaining 13%, which includes the new business growth from our focused SMB initiatives.

I do want to caution that ARR growth in 2021 are against a pandemic and EPC-induced dip in 2020. To illustrate this further, we are showing here our ARR growth performance since 2017, in relation to an accelerating trendline. The significant dip in 2020 is setting a lower comparative basis, thereby increasing our ARR growth in 2021, which otherwise would have been closer to the trendline.

Also, Seequent, which is about 10% of our business, and which continues to grow at least twice as fast as Bentley, contributed to an ARR growth inflection starting with its acquisition in mid-2021.

Now, I am showing here our 2022 outlook, with a projected constant currency ARR growth between 14% and 16%, which includes growth of 2.5% from the onboarding of Power Line Systems, and growth of 11.5% to 13.5% from business performance, including Seequent.

Our GAAP operating income was $43.3 million for Q4 of 2021, down $11 million, and $94.6 million for the full year 2021, down $55.6 million from the prior year.

These GAAP results reflect rather substantial incremental charges for acquisition-related expenses, primarily Seequent, incremental amortization from purchased intangibles, also primarily relating to the Seequent acquisition, non-cash stock-based compensation, and the one-time accounting charge of $91 million related to the modification of a portion of our nonqualified deferred compensation plan from an equity settled arrangement to an eventually cash settled arrangement.

On the right, our adjusted EBITDA metric normalizes from such activities. With a fourth quarter improvement in adjusted EBITDA of 13.9% and for the full year, adjusted EBITDA of $324.9 million is an improvement of 22% relative to 2020.

Even within our adjusted EBITDA metric, there is more to our margin performance over time that needs to be understood. We are now through our first full year as a public company and our second year of the pandemic. As you heard Greg and David comment on before, and in the context of our historic margin performance, we are committed to an annual expansion of our adjusted operating margins of about 100 basis points.

David previously explained the shift of our compensation structure for certain top executives from only cash-based compensation pre-IPO to cash and stock-based compensation post-IPO. With stock-based compensation being an add-back, this favorably impacted our margin performance starting in the fourth quarter of 2020. We here normalize our EBITDA margin as if the post-IPO compensation structure would have been in place from the beginning of 2019.

David also discussed quite sizable pandemic-related cost savings quantified at $42 million, which benefited our cost structure in 2020. For 2021, we did expect these costs to fully return into our cost structure and, therefore, we added them back on a pro-forma basis in normalizing our 2020 margin performance.

Therefore, on a pro-forma basis, we show a normalized adjusted EBITDA margin of approximately 30% in 2019, 31% in 2020, and we guided towards 32% for 2021.

Now, for our 2021 actual performance, our operating cost structure again benefited from reduced travel and live events, but to a much lesser degree than in 2020. We quantify these cost benefits at $13 million, relative to what we expected to incur as a post-pandemic run-rate, and we again normalize for such savings to provide you with a normalized period-over-period margin performance comparison.

I also add that towards the end of 2021 and going into 2022, we now see such costs much more in line with our expected post-pandemic run-rate, and that our incremental public company operating costs are now also fully absorbed in our cost structure.

With an actual adjusted EBITDA margin of 33.7%, and a normalized adjusted EBITDA margin of 32.3%, we fully delivered on our adjusted EBITDA margin commitment of approximately 32% for 2021.

For 2022, we see significant opportunities to invest into top-line growth. We, therefore, purposefully set our margin expansion target at approximately 33%, to be 100 basis points above our normalized 2021 margins.

Our outlook is obviously informed by our current sense for tone of business. And our outlook assumes stability in foreign currency exchange rates, and it does not contemplate any platform acquisitions not already concluded. It does, therefore, contemplate the acquisition of Power Line Systems.

Accordingly, we expect revenues between $1,110 million to $1,140 million, representing growth over 2021 revenues of 15% to 18.1%. This expected growth is partly offset by foreign exchange headwinds, which we estimate at $18.5 million, notably from a stronger U.S. dollar today than last year. Given our fairly effective natural hedge, the FX impact on margins is significantly mitigated.

As I mentioned before, we project constant currency ARR growth to be between 14% and 16%. And we expect adjusted EBITDA to be between $370 and $380 million, approximately a 33% adjusted EBITDA margin.

I also include here some additional explanations on interest, taxes, CAPEX, outstanding shares, and dividends.

With respect to liquidity, our Q4 GAAP operating cash flow of $80.6 million decreased 2.1%, while our full year operating cash flow of $288 million increased by 11.5% over the comparative period in 2020. We expect that on average, our business will efficiently generate cash flows from operations at a ratio of 85% to 90% of adjusted EBITDA. Both our Q4 operating cash flow and our full year 2021 operating cash flow were at the high end of this range, with cash conversion ratios of 91% and 89%, respectively.

In December, we entered, under very attractive terms, into a new $200-million-dollar senior secured term-loan, which will mature in November 2025, corresponding to the maturity of our $850-million-dollar revolving credit facility. We used the funds from the term-loan, together with cash on hand and availability from our then undrawn revolving credit facility, to fund the acquisition of Power Line Systems, which closed at the end of January 2022 for an all-cash consideration of approximately $700 million.

In 2021, we spent approximately $121 million for de-facto share repurchases associated with stock-based compensation. For 2022, we plan to significantly reduce our cash spent for such net settlements by distributing shares to participants on a gross basis. We will earmark the cash savings to fund programmatic acquisitions and pay down debt.

I also remind you that during the first and second quarter of 2021, we executed the placement of our 2026 and 2027 convertible notes for a combined principal of $1.27 billion and an annual cash interest obligation of only $3 million. These notes, which are unsecured, have attractive conversion strike prices. We consider these notes to be a more permanent part of our capital structure and we applied the majority of the proceeds to fund the approximately $900 million cash consideration for our acquisition of Seequent.

As of the end of December, and upon consideration of pro-forma adjustments to reflect the financing of the $700 million cash purchase price consideration for our acquisition of Power Line Systems, our pro-forma net debt senior leverage was 1.6 times, and our pro-forma availability under the revolving credit facility was $358 million. When including the convertible notes as indebtedness, our pro-forma net debt leverage was 5 times, as of the end of December.

Our business, with its predictable and visible cash flows, carries debt well. Our capital structure is in very good shape and able to support continued growth initiatives and programmatic acquisitions, which we intend.

And with that, I think we're ready for Q&A. Thank you.

**Carey M:** We'll begin with Jason Celino from KeyBanc.

**Jason Celino:** So, Greg, the comments on SMB, very nice to see, continuing all throughout the year. But what modules are you seeing the most uplift in? Because at this point, are you seeing these SMB customers supplementing their design and modeling processes with Bentley? Or are they replacing their existing solutions?

**Greg B:** Well, I think the majority of it would be replacing existing solutions. Many of them have not been aware of us. We're reaching them with social media marketing and so forth. But there is a significant minority where they're starting with specialized products—the more expensive products that, again, they find us through querying and we convert those sales. But I think the majority of it is a competitive game.

**Jason C:** OK, interesting. And then maybe one quick one on PLS, the acquisition, before you guys bought them, was running at EBITDA margins of double that of Bentley. But based on kind of the guidance outlook, it looks like Bentley is reinvesting that difference into the PLS organization. So does the 2022 revenue and ARR guidance just assume PLS continues to grow at the historical level? And then, I guess, could we see upside with investments and ramp up?

**Greg B:** Well, we expect to grow faster, which is the reason to spend relatively more. Of course, it was in private equity ownership, which seemed to act as if it wanted to maximize current period profitability. But that's not how we do things. We want to benefit the future as much as we can.

So, what we want to get the next several years of development plans on PLS part done—in one year, and especially to globalize the offering and bring together this great integration. So, we're just salivating in all these directions because there's never been a more auspicious market opportunity than now for transmission grid and integrated grid. So, this is the reason we're operating it not business as usual but within our acceleration group, where we can put all this impetus together and spend more and accomplish more than the path they were on.

So, it's not business as usual for us but more business as usual for PLS in the integrated group now, including SPIDA and our tower business together. Do you want to add more on that, David Hollister?

**David H:** No. We are indeed investing some of that margin windfall, if you will, Jason. And we expect gross returns as a result.

**Jason C:** OK, perfect. I'll get back in queue. Thank you.

**Carey M:** We'll next go to Matthew Broome from Mizuho.

**Matthew Broome:** OK, great. Hope you can all hear me.

**Greg B:** Yes.

**Matthew B:** Hi, everyone. Hi. So, it's great to see your LTM net retention rate recover from the pandemic. From your presentation, it sounds like you expect it to track ARR growth above even where it is right now. So, how sustainable is net revenue retention above that sort of 108% to 110% range?

**Greg B:** Well, we had been tracking this chart that we showed you sort of internally. And we believe there was kind of a mathematical relationship there, which we think is born out now and worth sharing. All of those numbers are numbers you've seen before, but putting them together in that way sort of suggests the way it works. It can't get as high in NRR as ARR growth, because the ARR growth includes the new name ARR growth, which runs about 2% of our ARR per year.

But can it grow faster? Well, application mix accretion is a reason to think that it can. We haven't talked about inflation. Maybe this year, it's a percent or two more. We're sort of not normalized to think in those terms. But E365, we believe fundamentally in substance is the way to maximize the net retention, the accretion, the introduction of more usage and more specialized applications that our accounts want and need. They want and need it now, because they need to get more work done without being able to hire more people.

And *going digital* is the answer for that. And the E365 program is how we introduce these success blueprints that they have more appetite for than ever now.

**Matthew B:** Right. Actually, and just on that E365 sort of topic, the significant majority of your enterprise licensing is now E365. Do you still expect meaningful sort of ELS conversions? Or will it be much harder getting the remaining enterprise customers to convert?

**Greg B:** Well, what I showed there on the chart was the accounts that spend over $100K per year for us, so that would be other than our definition of SMB—I realize that's emphasis on the M when you get up to $100K per year. But the portion, the largest portion, in fact, of our ARR at present, are these $100K per year plus accounts—we count them as enterprise accounts—that are not yet on E365. And many of them were never on ELS. ELS was kind of a in-between program. And we will be introducing E365 to those accounts for many years to come, we think.

**Matthew B:** OK, great. I'm sorry, if I could just squeeze one last one in, just in terms of SYNCHRO, really interesting to see the strong, new business growth there, particularly given construction industry headwinds. And clearly, it does look like there's a lot of demand for that 4D modeling that you were talking about. How large do you see this market opportunity and to what extent, I guess, is construction management software a focus for investment for Bentley going forward? That's it for me.

**Greg B:** Well, I would emphasize that we're not targeting all of construction but that portion, which is amenable to go to 4D. I guess I'll ask Nicholas for further commentary.

**Nicholas C:** Exactly, Greg. So, our focus is on heavy civil. We're not going after any construction industry out there. And our focus is actually to skate where the puck is going, right? We are a relatively new entrant in that market. And we're going after accounts—firms—that are willing to embrace 3D and are willing to add this fourth dimension with scheduling. So, it's just a net new growth opportunity for us.

**Greg B:** If I can say, the example of the New York DOT that Nicholas showed is really promising for us, because this is a DOT that said, "We're never going to get our work done with traditional 2D plan sets. Let's leapfrog all the way to 4D and work on making the 3D package the legal construction documents." It's a very big step. But we hope the IIJA, will help institutionalize this greater ambition, of which the New York DOT is an example.

And that involves SYNCHRO. So, the plan is, we said, constructioneering include the "how we were going to build it" and "how you'd design it."

**Matthew B:** Great. Thanks very much and nice quarter.

**Carey M:** We'll now go to Matt Hedberg from RBC.

**Matt Hedberg:** Hey, guys, thanks for taking my question. Yeah, congrats from me as well on a strong close to the year. You guys spent a lot of time on the presentation talking about digital twin. And I know we've talked about digital twin, really, since you're predating your IPO. You know, is there any help you can give us on sizing that business? I believe, exiting 2020, you talked about an eight-figure run rate. Any additional update on sizing or relative growth of digital twin?

**Greg B:** Well, my quick answer is, ultimately, it's a multiple of what we do now because it uses the civil and structural engineers' simulation and modeling throughout the lifecycle of assets. And I'll just give one example, and then I'm going to turn it over to Nicholas to get to your quantification that you're interested in.

But an example is transmission grid and PLS opportunities. And some of you will have seen the 60 Minutes' segment last weekend showing how unreliable is our energy grid. It's older all the time. The FERC is now requiring, since December of 2021, dynamic rating of the capacity of the grid that says, "Well, we can use it safely at higher temperatures and so forth, but we have to understand better what we have and what its capacity is. We can't take that for granted, the way it was built."

And so that's an opportunity for digital twins for existing transmission structures and lines. PLS has been used in many cases to design a lot of the—for instance, now we're talking now about the U.S. transmission grid, but now the opportunity to become the living 4D digital twin to help it remain resilient, address the vulnerabilities, and so forth is just a multiple of the opportunity that was involved in designing it to start with, if you can see—instead of one year of work, it's 50 years of work. Nicholas, can you help with the quantification?

**Nicholas C:** Yeah, I will say the quantification is huge because it is fundamental to the evolution of the industry. The whole industry is moving towards digital twins. You cannot really think about it as a tangent or as a specific product line. All of our products, actually, are going to evolve in the context of digital twin.

So, thinking about how we are monetizing our digital twin solutions right now—at the heart of our strategy is the iTwin platform, our platform for infrastructure digital twins. It is supporting both Bentley products and non-Bentley products. So, you can re-think about the monetization of that platform through these two channels, so to speak.

So, for the Bentley products, we're not breaking out our revenue by specific brands, but we doubled the revenue from all the Bentley products that are powered by iTwin, including SYNCHRO, which I mentioned, including OpenTower IQ that David mentioned as well in the context of off-grid.

And then, from a third-party standpoint, we—our focus is very much on adoption rather than revenue acceleration at this point in time. Obviously, it's relatively new as a platform, as a service. We launched it about a year ago, a little bit more. But we basically multiplied the number of partners actively developing on that platform by 10 over one year.

So, we see a lot of traction here from an adoption standpoint. And over time, this will translate into monetization through the products, the applications, the solutions that the partners are creating on that platform.

**Matthew H:** Got it. That makes a ton of sense. And then Werner, maybe a financial one for you. Obviously, you've got the Seequent anniversary, and you've got Power Line contributing to revenue this year, and I think we can kind of understand how those two things impact top line. But when we think about margin expansion, you're guiding to a basis point of expansion, which is really good to see, despite all the investments.

Is there anything that we should think about in terms of—like are those more front-end weighted? The question, effectively, is like the linearity of off-margin improvement as we move throughout there. Anything to think about there?

**Greg B:** I'll just throw in, because I'm an old finance guy, 100 basis points, not one basis point.

**Matthew H:** 100, 100.

**Greg B:** A margin point.

**Matthew H:** Sorry, sorry, yeah.

**Werner A:** Yeah, so I think that the consensus that's out there is pretty much in line right now how revenues and margin will allocate. So, we have a very strong Q4, as we historically had. That doesn't change. With Seequent, it's maybe more the first three quarters are more like evened out, if you will.

On the revenue allocation, I would say the way you guys have it right now, that's pretty good with Q4 being a little bit stronger and margins relative in line as we go through the year. Maybe to add that towards the end of the year, expenses are a little bit increased, as we talked before where certain events that happen in Q4 like our *Year in Infrastructure*.

Certain incentives are more backloaded towards the end of the year. And then, our wages kind of get increased starting April 1. So, I would say like it's fairly even throughout the year. Probably like if Q1, the EBITDA margin slightly higher than what you see towards the end of the year.

**Matthew H:** Got it. Thanks a lot. Well done, guys.

**Carey M:** We'll next go to Baird, Joe Vruwink.

**Joe Vruwink:** I'd like to get your latest thoughts on infrastructure stimulus both here and abroad. It seems the funds have started to flow, so local agencies have it. Projects are being committed.

What's your latest thought on your customers being in a position to see an uplift in their business activity from the stimulus that's passed? And then are you also seeing that more directly tie into uplift in demand for your product so that you can kind of connect one to one the second half, let's say, more firms are going to be receiving their funding, their project activity that might actually manifest in acceleration for Bentley?

**Greg B:** Well, when you ask about the engineering firms and their business activity going up, certainly their business development activity is going up because they—we just take the example in mobility. More contracts are in some stage of letting, and obviously the engineering firms track that carefully.

I would say in terms of our business, they're interested in programs like E365 that are going to help them improve their productivity so that they can take on more work without taking on more people. But most of that new work is ahead.

Now, there are some who are working with owners to submit applications for funding. The applications for the grant programs—there could be a bottleneck in the federal agencies being able to evaluate and approve the applications. There's considerable worry about that, but I think headway is being made.

As to maybe some of the most significant aspects of it, if I use again the example of the transmission grid getting passed, if you like, the gridlock in permitting—the IIJA contains very interesting, you could call, no-cost program that speeds up permitting, which could take forever, otherwise, for expanding transmission capacity. The expectation of the new work that will be front ended by removing the decade it otherwise took to get permits is an aspect in there that's going to turn out to be a godsend, I think, especially in the integrated grid aspect of our business opportunity now.

So, it's not just the allocations of the money, but some improvements. And another one in mobility would be the example of starting to use 3D construction documents for 4D processes. That will have everyone's attention. There was a terrific article in Engineering News-Record this month about that that will help increase demand for our solutions.

**Joe V:** So, just related to this, when you think about exiting this past year with a 13% organic ARR growth rate, the guidance for next year starts at 12% to 14% or 11.5% to 13.5%, obviously, the base for comparison is a more difficult one.

But do you think it's possible that, given some of the things you've mentioned so far—continued success with SMB, application accretion, and the infrastructure stimulus layered on top—that there is a potential to actually accelerate further from this band you've now been in?

**Greg B:** I think we are accelerating, and things sort of couldn't feel better in terms of these three directions of mobility and environment, which is growing tremendously. We think mining as cyclical. The cycle we're in, I think, is going to last until the economy is decarbonized in the world and then the grid opportunity that I mentioned. They all feel like they can accelerate.

Now, it must be said, the world is on edge at the moment, following a pandemic with a brutal war. So, we're inclined to be circumspect and improve it throughout the year here. But certainly, we couldn't be more excited by how we can help infrastructure engineering here in 2022.

**Joe V:** Thank you very much.

**Carey M:** We'll next go to Sophie Lee from Berenberg, please.

**Sophie Lee:** Hi. Thanks for taking my question. I just have one question maybe for Greg, especially on the E365. Can you tell us more about the oil and gas recovery? And what inning of the recovery are we in? And with the oil prices as high as they are today, are you expecting any incremental demand in FY22 from that segment?

**Greg B:** I wouldn't go so far as to say expecting it, but believing logically that it should occur. I can't tell you where we are in the recovery. I think we're at the bottom of, or at the end of the trough, based on usage. And it's capital projects that are down. The industry needs to sweat the operations of the existing assets on the OPEX side.

And I expect the question about Russia. We mentioned Russia during the past year as one of the first to benefit from higher oil prices and spend on civil infrastructure. That was some new business growth that we commented upon. Overall, our exposure—Russia is on the order, with Ukraine, of about 1% of our revenue. So there's not a lot at risk. And we already are subject to some sanctions, and now some new sanctions, as to Russia.

But it seems logical to me that there will need to be new investment in industrial capacity. And E365 is the program they're all on. So, as soon as they're more busy, we won't have to wait a year, as we once would have done in the previous commercial program, to benefit from that. And I hope it'll be 2022. I think they believe it will be 2022.

**Sophie L:** That's very helpful. Thank you.

**Carey M:** We'll next go to Kash Rangan from Goldman.

**Kash Rangan:** Hey, Greg. Congratulations on finishing up the fiscal year. Curious to get your thoughts. Driven by factors such as ESG, decarbonizing the planet, it looks like civil infrastructure part of the market is going to outpace commercial. I think commercial did probably better than civil in the last 10 years. We had low-cost capital, very low rates, building boom, et cetera. What are your thoughts? Are we right with this hypothesis that we could see a reversal of sorts, that civil—it's time for civil to really outpace commercial, firstly?

And secondly, intrigued by your thoughts on the SMB SAM. Will, as you pursue that opportunity, be able to do it with no incremental impact to margins? Or do you think, actually, on the flip side, margins could go higher, because you could tap into a channel, such as resellers that could provide you with more leverage than the 100% direct model in the past? Thank you so much.

**Greg B:** Let me start with SMB, as that is fresh in mind. We do want a new channel. We want a digital-experience channel. We want it to be direct and no touch. And we're engineers, software developers. We're salivating to get underway with that in 2022. We had to slow down to get Sarbanes-Oxley's documentation and certification of the way we do things now. But we are definitely going all digital for the SMB opportunity going forward.

Now, that will be a bunch of spending on our part. It's a lot of where we're allocating margin that otherwise would have fallen to the bottom line for 2022. But, ultimately, bigger SMB penetration, getting our share in SMB—and it's taking share from our competitor there—will improve our margins because we don't need to spend a thing on product development for that purpose.

Let me go back to your first question. It's definitely the case that civil will overtake commercial and facilities sector in growth rate. The commercial and facility sector is going to suffer from the digestion of how people work now. And we are changing our infrastructure-empowered workforce plan. And we'll use smaller facilities but be design intensive in how we make them bring all our colleagues together for collaboration, understanding that they can do much of their work remotely. But their collaboration, we can do in facilities. So that's going on in the world over. And I think that's for sure that—what you predict there.

**Kash R:** Thank you so much.

**Carey M:** We have time for one more question. Michael Funk from Bank of America.

**Michael Funk:** Thank you for fitting me in. I really appreciate it. So, thinking back to PLS, I think part of the justification or benefit with [INAUDIBLE] Bentley's sales force and sales motion. I know it's early days, but any thoughts there on potentially driving upside to revenue growth and the synergies? And then second, just thinking about wireless, specifically, in that industry, still hearing a lot about increase in site development. So, wondering where you think we are in that cycle?

**Greg B:** Well, I'm going to ask Nicholas to talk about the industry-solutions aspect. PLS has done well in dealing with the transmission engineers. They tend to be aware of PLS in at least this part of the world. There's a lot of the world left. But at the enterprise side, the digital twin opportunity is where our industry solutions will help most. And the 5G location, if that's what you're asking about, is a really fascinating opportunity that we call grid integration. We'll talk about that in a subsequent quarter for an update on that. Nicholas, on the sales synergies.

**Nicholas C:** In general, we're strengthening the industry dimension in our go to market. One of the key growth industries for us is electric utilities. Now, if you remember, as we presented PLS, we said that their go-to-market investments were relatively little. There is a big part of the business which is through channels. You could argue Bentley is going to become the overall group, the biggest channel for the PLS software, right?

So, we see synergies across the accounts—the traditional PLS accounts with the traditional Bentley account here in North America. But we see, of course, a huge potential for PLS outside of North America. That's something that they wanted to do on their own. And that's something that we'll be able to accelerate, now that PLS is part of Bentley.

**Michael F:** And I guess it's fair to assume, looking at your guidance in the historic PLS result, there's really not much of that synergy baked into your guide for this year. Is that fair?

**David H:** So, I would say that we expected 30 million of subscription revenue for 2022. Again, we closed a month after we thought. So, prorate that. That 30 million reflects PLS' historical growth, which was a bit faster than Bentley Systems. So, it's not a layup. But internally, we're obviously aiming higher than 30 million. But the guidance we have out there reflects the 30 million prorated for not having January revenues.

**Michael F:** Great. Thank you. Look forward to hearing more on 5G as well. Thank you.

**Carey M:** Well, we'll have to leave it there. Thank you, everybody. And we'll see you next quarter.

**Greg B:** Cheers!

**Nicholas C:** Thank you.