

Carey Mann: Good morning, everyone. And thank you for joining us for Bentley Systems' Q3 2021 Operating Results webcast. I'm Carey Mann, Bentley's VP of Investor Relations. On the webcast today, we have Bentley Systems' Chief Executive Officer Greg Bentley and Chief Financial Officer David Hollister. Before we begin, allow me to provide a disclaimer regarding forward-looking statements. This webcast, including the question-and-answer portion of the webcast, may include forward-looking statements related to the expected future results for our company and are, therefore, forward-looking statements.

Our actual results may differ materially from our projections due to a number of risks and uncertainties. The risks and uncertainties that forward-looking statements are subject to are described in our operating results release and other SEC filings. Today's remarks will also include references to non-GAAP financial measures. Additional information, including reconciliation between non-GAAP financial information to the GAAP financial information, is provided in the press release and supplemental slide presentation.

This webcast will be available for replay on Bentley Systems' Investor Relations website at investors.bentley.com. Greg will begin today by reviewing business developments and our progress over the last quarter. And then, David will take you through a review of the financials results. We will then conclude with Q&A. With that, let me introduce the CEO of Bentley Systems, Greg Bentley.

Greg Bentley: Good morning, as the case may be, and thanks to each of you for your interest in Bentley Systems' quarterly operating results. Our prepared remarks today will follow our usual format, as I will discuss the tone of business in certain corporate developments, and over to David Hollister to review our quarterly financial performance.

Our operating results press release is one of two we issued today. By way of tone of business, we consider that 21Q3 was a quite satisfactory quarter in tracking towards our previously expressed expectations for the full year 2021, particularly in terms of new business growth and ARR growth, which, by virtue of our subscription preponderance, tend to be closely correlated.

With U.S. federal infrastructure spending legislation having only just finally moved forward from its status when we last announced quarterly results, it is too late for our full year 2021 expectations, or those of infrastructure engineering organizations, to be materially impacted or adjusted. But our user organizations seem already more receptive to going digital in order to be able to increase their workload more rapidly than they expect to be able to increase their workforce.



As happens to have been the case throughout our now year-plus history as a public company, the tone of business differs considerably by infrastructure sector. In each case, we monitor application usage, which, for most of our business, tracks tolerably closely with new business growth and ARR growth.

For the third quarter of 2021, the pattern continued to correspond with what I reported for 21Q2 in accordance with the stoplight relative color coding here. This refers to the trend direction since pre-pandemic in terms of unit volume abstracting from almost two years of some commercial changes.

The consistency with last quarter's report enables me to be brief today, and touching on only what's discernibly different or newly discerned. As before, I will start with the seemingly chronic infrastructure sector laggard: industrial/resources. Traditionally, this represents only the portion shown here of our revenue by sector. But recall that last quarter, we showed the new breakdown of our ARR by sector now, including Seequent.

We have not sufficiently integrated Seequent into our systems and metrics such that we can regularly break out revenues by sector, but when we can do that next year, it is our intention to separate industrial and resources into two sectors. Industrial will primarily consist of process plants, including for power generation, along with discrete manufacturing facilities. Resources will then become the larger sector shown here by virtue of Seequent's concentration in mining and will include our substantial footprint, or, should I say, ES(D)G handprint for offshore structures, increasingly for renewables, rather than only oil and gas production, and for geothermal and other environmental opportunities.

Seequent is thriving primarily with mining growth, including for the electrification quest. And it added 7% to its ARR from 21Q2 to 21Q3. This does not include either RGO technical offerings, such as PLAXIS—which we have reverse integrated into Seequent, and which continues, by the way, its notably strong new business growth—nor the acquisition of Minalytix or other acquisitions by Seequent. Minalytix was in September to fully incorporate the MX Deposit Drill Hole Data Management Cloud Platform.

On the whole, I consider that our new mix within the resources sector positions us rather favorably for the world's energy transition imperatives. But back in our traditional combined industrial/resources sector, the drop-off in fossil fuel CAPEX appears to have continued based on our application usage readings.



In keeping with the fact that typical affected EPC contractors, based on their own public company filings, have reduced their workforce by on the order of 20% since the middle of last year, their usage of our applications is down by a percentage in low double digits. But we are realizing other knock-on impacts.

Our last 12 months subscription revenue from EPCs is now down year-over-year by a high single-digit percentage. If not for this EPC decline, our 21Q3 recurring revenue retention rate would have been 108.5% rather than our reported 106%.

Moreover, our ProjectWise collaboration service has been the workhorse for work sharing across EPC's global resource centers, and their reduced workforce has made a substantial dent here as well.

While new ProjectWise usage was a growth driver during the first year of the pandemic, as going digital made working from home more productive, by now, this first-time virtualization of talent has, of course, slowed down. And industrial/resources, infrastructure engineers within owner-operators besides accounting for almost all the OPEX usage, also work on CAPEX projects.

It has occurred to us that owner-operators use of ProjectWise provides us a proxy to measure this project delivery proportion of their work. Corroborating our observations for EPCs, this usage is also down in low double-digit percentages since pre-pandemic.

Overall, this accumulated drag from industrial/resources CAPEX project delivery curtailment, plus an even larger proportional curtailment in commercial facilities CAPEX, also inferred from lower usage of ProjectWise, is tending to almost offset new business growth for ProjectWise.

Similarly, within our consumption-based E365 program, where industrial/resources accounts represent a greater proportion than of our overall ARR because of EPC's preference for E365 to share with us their intrinsic cyclical volatility, industrial/resources CAPEX usage declines somewhat more than offset all other usage gains during the pandemic to date.

Overall, our new business growth in industrial/resources—again, excluding Seequent—has declined by half since pre-pandemic. However, these CAPEX headwinds are somewhat mitigated by notable new business growth in AssetWise year-to-date, led by industrial/resources lifecycle information management.

For assessment of the tone of business across world regions, we use the measure of new business growth, rather than application usage. This corresponds to our regional management of our account advancement direct sales force. As a footnote, for us, the connection between application



usage trends and new business growth is stronger than for competitors whose enterprise subscription programs are based on use-it-or-lose-it commitments. However, our E365 program does increasingly include some symmetric collars, which serve to somewhat attenuate the correlation.

And by region, there is better related news than within the traditional industrial/resources sector, per se. Last quarter, we had continued to observe that while whole regions—such as the Middle East, where economies substantially depend upon industrial/resources fossil fuel revenues—had abysmal new business growth across all infrastructure for the past year.

So, it's gratifying now to observe that for 21Q3, new business growth has significantly returned in the Middle East. Presumably, this is a result of the rebound in energy prices, which, hopefully, will be sustained.

Latin America also significantly turned around with notable new business growth. And Russia, in this case, uniquely led by industrial/resources, was relatively the best region and new business growth performance for 21Q3, presumably capitalizing on Russia's energy export opportunities.

Rounding out the tone of business by region, based on other drivers of regional performance than the industrial/resources sector, India rebounded to new business growth for 21Q3—though not yet back to pre-pandemic levels.

In August, India announced a four-year, \$1 trillion Build Back Better program for transportation and telecom to start next year. Australia and New Zealand have brought up the rear in new business growth this year, but from an unfortunate combination of unrelated institutional factors, we think, in spite of relatively positive fundamentals, which we think should turn this region around foreseeably.

In greater China, where we called out geopolitical issues that seemed to come to a head last quarter, it's good news that attrition during 21Q3 was down to globally normal levels, with the resulting new business growth seasonally comparable to prior years. This region's year still depends characteristically on a strong fourth quarter, but we do think demand fundamentals remain strong.

Back to infrastructure sectors. In commercial/facilities, the decline in ProjectWise usage that I mentioned indicates an even greater proportionate decline in CAPEX projects than there was in industrial/resources. However, in commercial/facilities, growth in OPEX usage fully makes up for this, recovering overall to pre-pandemic usage levels.



And to get to the most sustained and significant trend of all, concluding with our mainstay public works/utilities sector, all indications by region and globally continue to confirm advancement from pre-pandemic usage and new business growth levels. By way of example, for notable growth during 21Q3 and year-to-date, credit in particular goes to all of our products for provisioning and asset performance of utility grids; OpenFlows for water, wastewater, and sewer networks; OpenUtilities for energy networks; OpenComms for telecom networks; and OpenTower for communication tower digital twins.

This new business growth results from the extraordinary opportunity I described at length, along with our 21Q1 operating results in May. And indeed, during 21Q3, we won new OpenTower contracts for multiple millions of ARR dollars. Together, I think these quantitative and qualitative data points make the case that we are succeeding in becoming capable of faster growth than our traditional trajectory.

I don't think the principal drivers for this are so much our new products or initiatives on the margin, nor even the Seequent acquisition, but rather some fundamental investments. While they happen to coincide with our having become publicly traded, I think the only relationship to that is indirect, holding ourselves more accountable to reach our potential.

And while these fundamental investments happened to coincide with the course of a pandemic, which has made our markets more receptive to going digital faster, I think the more direct relationship in this case is that we could re-invest pandemic-induced travel and event savings so as not to compromise our committed target to annually improve margins by a measured and sustainable 100 basis points.

So, to reprise these fundamental investments, first, we now have about 600 colleagues within our User Success organization, which didn't exist at the beginning of 2020. Not all of these colleagues are incremental, as this now includes all of our now consolidated technical support and traditional professional services resources.

Every day reinforces how much more effective we become as a company in supporting our users' advancements in adopting and expanding the usage of our products and cloud services now that we have a dedicated Success Force, who work on nothing else, than when we previously assumed this could be done as a small and amorphous and unmeasurable part of every colleague's job.

I think our User Success organization, though still so young, has already made an impact on nearly every existing and new account, improving their sentiment capacity, and progress in going



digital by using more of our offerings better, and especially through the new digital workflows that our success blueprints introduced in accordance with the priorities of our E365 accounts.

So, to underscore the importance of our User Success investment, consider the extent to which our ARR now varies directly and immediately with consumption through term licenses and especially our E365 program, where we charge per application per day. This slide from last quarter shows our point of departure for the proportions of revenue by commercial model. And here are those proportions at the end of 21Q3.

The major increase in term licenses reflects the first-time inclusion of Seequent for a full quarter. More significantly, 21Q3 was another quarter of substantial growth in ARR under E365—mainly attributable to accounts opting to upgrade from our traditional ELS program in order to secure the virtually embedded assistance of our Success Force, including, through Success blueprints, and *going digital*. We are now offering E365, by invitation, to the larger accounts whom are currently select subscribers with more than ample pipeline for years of further upgrades.

The majority of our ARR growth upside potential depends on accretion within our existing accounts after they upgrade to E365. And the palpable results of our Success program investments to date have steadily increased my confidence in this upward inflection.

In recent quarters, I had described at length our other fundamental investments since the start of 2020, so a brief update should suffice. Virtuosity offers, primarily to SMB prospects, our Virtuoso subscriptions, which uniquely combine software access with Success key assistance from our substantive engineers.

Virtuosity began as a captive reseller, which we quickly determined to mainstream. And now more than 200 colleagues work, for example, here in Dublin in its direct sales, digital engagement, and e-commerce activities, competing primarily with our competitors' indirect channels.

Largely as a result and aided by new specifically targeted User Success initiatives, our new business growth in SMB accounts has more than doubled from its level in 2020 or 2019 to reach in 21Q3 fully 43% of our overall new business growth.

In the case of each of our User Success and Virtuosity SMB investments, even greater ROI can be achieved through further investment in our own *going digital* to support each of these colleagues through greater and better automation and self-service for our users and prospects than our competitors.



Unfortunately, our internal IT and supporting resources, for whom this otherwise would be their highest and best use, are constrained this year by the extravagance compliance ritual of our first-time Sarbanes-Oxley 404 deadlines, as we exit the emerging growth company exemption at year end. But we plan to more than catch up starting in the new year.

To conclude the tone of business, I would like to highlight our brand, which leads in new business growth year-to-date: our SYNCHRO 4D construction modeling offerings. In particular, I note that its new business growth is equally balanced between SMB accounts and larger accounts, which indicates that both Virtuosity and our User Success organizations deserve considerable credit.

Our construction strategy is not to try to be all things to all participants. Rather, we want SYNCHRO to become the solution on projects, which realize that construction is intrinsically about the occupancy of space and time. So, *going digital* is not about dumbing down 3D designs to 2D digital paper, but rather constructioneering in 4D.

As a measure of where this awareness and potential penetration stands in the marketplace, I think it is significant that among this year's *Going Digital* Awards finalists—and more about them in a few minutes—at this point, 28% of the projects credit SYNCHRO.

At this point, 28% of the projects credit SYNCHRO. I'm also frequently asked about the pace of take-up of our iTwin platform, which adds digital twin cloud services to any of our user environments. I think it's also notable that this year, fully 26% of the *Going Digital* Award finalists credited iTwin platform enablement.

So now, on to corporate developments to relate to what's occurring externally. And indeed, starting with our *Going Digital* Award finalists, recall that independent expert juries—and many jurors are the world's infrastructure journalists—spent the summer assessing the hundreds of project entries submitted by our users for *Going Digital* Award consideration. You will see all these nominees in our forthcoming *2021 Infrastructure Yearbook* and our online gallery, searchable across all past years as well.

The three finalists in each category have been announced and have recently been presenting their projects virtually to their category's jury, in a recorded format. You are invited to watch these finals through our *Year in Infrastructure* website. For the mobility categories, this has been available since November 1, and for the project delivery categories, since November 8. The city categories' finals will be available November 15. The energy categories' finals will be available on November 22, and the water categories' finals also on November 22.



This all builds up to our *Year in Infrastructure* virtual event keynotes, including on December 2, when Nicholas Cumins, currently our chief product officer, and Chief Success Officer Kat Lord-Levins, will talk about going digital for infrastructure project advancement. And we'll finally announce the winners selected by the juries.

On the previous day, December 1, our Chief Technology Officer, Keith Bentley, our ES(D)G Director, Rodrigo Fernandes, and I will speak about *going digital* for the advancement of infrastructure assets and of infrastructure engineering organizations. My guest keynoters will be Matthias Rebellius, CEO of Siemens smart infrastructure and member of the managing board of the Siemens parent company, and Andrej Avelini, president of AEC Advisors, which you will hear more about shortly.

We would like to include each of you in what I call a concierge virtual event for analysts and investors on November 29th. Carey Mann and Shannon Clemons will be your guides for most efficient participation throughout the *Year in Infrastructure 2021*. Please expect an invitation to register.

But speaking of CEO keynotes, and about 4D digital twins, earlier today from Europe, NVIDIA CEO Jensen Huang presented their GTC 21 keynote, which I have heard that 7 million people will watch. This included this slide here promoting our new offerings, which work with NVIDIA's RTX hardware and Omniverse services. And we will all want these days, I know, to be fully versed as to 4D visualization, of course.

3D visualization is made better with mixed-reality devices, which use their graphics computing power for real-time, photorealistic rendering quality. And our iTwin platform supports all of these, including popular game engines, for immersive experiences. The challenge for actual infrastructure engineering, however, is that both designs and as-operated physical reality are constantly changing. And much of the value of infrastructure digital twins is in understanding, perhaps extrapolating, these changes and their implications.

4D visualizations uses the computing power of NVIDIA's Omniverse to interactively move backward and forward, not only in 3D, but also by way of our iTwin platform's time slider, backward and forward in an asset's digital chronology to immersively review, for instance, the design history and/or, as here, the 4D construction sequence. This killer application for Omniverse is only possible by virtue of an iTwin's unique change ledger, which assures that the digital twin can be synchronized with the evolving reality.



An early adopter of this technology combination for digital twins is global infrastructure engineering firm Jacobs, one of our largest accounts. To gauge such progress and aspirations, we and AEC Advisors—a leading investment banking and corporate finance advisory firm for executives and boards of architecture, engineering, and consulting firms—collaborated on a first *Going Digital* survey, which was completed by over 150 CEOs of most large such firms, together estimated to perform more than half of the whole world's contracted infrastructure engineering work.

I presented the survey results by way of these AEC Advisors slides at their in-person CEO summit last month with my annotations. In this slide, as to their collective expectations about the pace of change and the deliverable requirements of their infrastructure owner-operator clients, I reported that the CEOs already consider 3D models as more important deliverables to clients than 2D drawings, and within three years, do not expect 2D drawings to be significant in comparison to 3D models. But many think that even the combination of models and drawings will not be nearly sufficient within three years, expecting infrastructure digital twin deliverables to be significantly prioritized by their owner-operator clients by then. And I think that the simulation results that many more significantly expect to deliver will also be produced by digital twin environments, implying expectations for overall demand for digital twin deliverables to grow steadily, if not immediately.

These AEC firms generally participate now only in CAPEX project delivery, but those who most expected digital twins to be required within three years expect the greatest value to be for infrastructure operations, offering the prospect of attractive new longitudinal and even new subscription business-model opportunities for these firms, whose roles would include iTwin platform-enabled services for proprietary analytics, data quality improvement, surveying and monitoring, and benchmarking.

But as you can see, and as we acknowledge, *going digital twins* is a long-term ramp. And it is interesting to consider the AEC CEOs' expectations about the contribution of such *going digital* initiatives to their own firms' market valuation, respectively compared to today, in three years, 10 years, and in a generation.

On the one hand, it's gratifying to see significant percentages that presumably motivate the continuation of investments in *going digital* that had accelerated with the pandemic and are demonstrably already providing good returns. But on the other hand, I think we can all observe other economic domains—retail or autos, for instance—where it's understood that multiples of market valuation are at stake and *going digital* with greater urgency than seemingly in AEC.



In fact, turning to the news of the day with the biggest of all economic figures attached, of course, the climate summit in Glasgow has the full attention of infrastructure engineers, as their work is what can make a difference. In terms of economic opportunity, this slide from Goldman Sachs shows the distribution of their estimate of \$6 trillion in annual green CAPEX spending required to meet all of the global goals under discussion.

Whatever are the amounts that can and will be, over time, incrementally allocated, these green CAPEX priorities correspond closely to the categories of BSY's public works and utilities sector market leadership and *going digital* for infrastructure engineering, including the largest expenditures by sector for roadways corresponding to our roads and bridges leadership, and the largest grouping of expenditures for renewables and the energy grid, corresponding to our market leadership and energy grids, and in mining and offshore resources needed for these renewables.

As to needed expenditures in rail, corresponding to our market leadership in rail and transit, and as to water quality, corresponding to our leadership position in water, wastewater, drainage, and treatment plants, and needed expenditures in telecom, ports, and airports, tending to correspond with our municipal market category.

While green CAPEX dollars are measures of need—so can by no means be put in the bank—in the finally advancing US infrastructure spending legislation, \$550 billion of the headlong \$1.2 trillion is actual incremental spending over and above historical baseline funding that is about to become actually committed. The incremental spending can be apportioned approximately along the same lines as to roadways, where this new funding is incremental to the existing gas tax funding program for roads and bridges, and for energy, including renewables, as to passenger and freight rail, and as to water and the needed expenditures in telecom, ports, and airports.

This final corporate development is significant but should not be regarded as a surprise. This year, I reorganized what had been a monolithic executive cabinet into two groups. Our Operating Council takes responsibility for our business as usual and works on improving our execution in coordinating from product to market to user success, increasing our precision in making our numbers.

I had already asked Nicholas Cumins to lead this activity of late and am now formalizing Nicholas's promotion to chief operating officer, effective for 2022, with our revenue, marketing, success, and operations/information officers then reporting into Nicholas. You had the chance to meet Nicholas last quarter as he introduced, as a Bentley company, Seequent, which has reported to him from the outset of the acquisition. I think it's reasonable for us all to expect that this change will result in improvements to our business as usual.



The Operating Council has already been working cohesively together, but now will have more degrees of freedom to double down on initiatives that for too long as a private company, we—by that, I mean "I"—failed to sufficiently take aboard. To the obvious examples of the explicit success organization and SMB new business focus, we will add a new priority or a step change advancement in marketing automation and integration. And this is also a very welcome change for me personally, as it will afford me more capacity to concentrate on external investor activities and communications.

The public software company CFO function—particularly upon graduating from emerging growth company status, as we're now doing—is a full-time job, and I'm very confident that our current chief accounting officer, Werner Andre, who has been mentored with this promotion in mind by David Hollister over the last seven years, will serve me and all of us well in this capacity, reporting to me. Werner is available today to help us answer questions. I know you will all warmly welcome him.

Throughout this year, he has been very occupied, needless to say, in completing our Sarbanes-Oxley compliance well ahead of the year-end deadlines. And, as I suspect David Hollister will tell you himself, he is very pleased to be able to soon focus fully on leading the increasingly significant activities of the second management group that I created this year for corporate development. This includes responsibilities, among other potential initiatives, for our acceleration activities, in which we nurture new businesses and, in some cases, will be creating new joint ventures for our iTwin Ventures fund and for our Cohesive captive digital integrator.

In respect of these investment activities, since last quarter, in addition to the Seequent acquisition already covered, there have been announced the acquisition by the Cohesive Companies of OXplus, combining presence in Central Europe and in road and rail owner operators. SewerAI's announcement of the investment by our iTwin Venture fund, along with the most recent announcement by Unearth of another significant iTwin Venture fund investment. And we're very pleased that our first iTwin Ventures invested company FutureOn, headquartered in Norway, today announced a significant growth investment by KDI, Kongsberg Digital.

Now, before handing over to David Hollister to cover our 21Q3 financial performance, may I explain how our deferred compensation plan change during the quarter relates to this overall subject of executive talent. As you know, the Bentley brothers believe that our longstanding equity-sharing program has been the secret sauce for our company's sustained progress. For much of our history before 2015, our executives' equity incentives were primarily earned through phantom shares in this DCP.



The mainstay of our executive management today are among this cohort of company security. And recall that our principal motivation before becoming a public company last year was to provide liquidity for our colleague shareholders. And most have accordingly become able, indeed, to choose or not to diversify the value of their BSY investments. However, the DCP executive cohort have lacked flexibility, as the phantom shares representing the bulk of their holdings could only be diversified after being distributed.

Most of these executives' distribution elections were made years ago. And in most cases, distribution is either not possible for many years or, significantly, is triggered upon or after separation from service. Without a change in the plan, for these executives to effectuate even a modest near-term diversification of their substantial and deserved wealth concentration in public BSY shares, their only recourse would have been to resign.

Rather than continuing to ask them, in effect, to choose between loyalty and reasonable investment prudence, we've offered these active executives a one-time-only election or limited reallocation within the DCP, and the result is that they have been able, I think, gratefully to diversify about a quarter of their DCP phantom shares. And as representative of these executive talent qualities, now over to David Hollister. Thank you.

David Hollister: Thanks, Greg. I'll start with our revenue performance. Our third quarter GAAP revenues of \$248.5 million grew 22% over the same quarter last year. Because of the purchase accounting for acquired deferred revenue, primarily related to Seequent, we have a haircut, which serves to deflate normal results. And accordingly, we also present adjusted revenues, which were \$251.4 million, up 24% from the same quarter last year.

There happens to be new accounting guidance, which formally brings GAAP accounting up to pace with this more enlightened view of the historical acquisition haircut. Unfortunately, we can't adopt that guidance until our Q4, which we intend to do and apply to our full year 2021, which will render this adjusted revenue concept unnecessary other than for the current quarter.

Of course, most of that growth comes from subscriptions, which grew 23% over the prior year, representing 85% of our revenues. Given this preponderance, I offer much of my business commentary here as it relates to subscriptions. We attribute the acquisition of Seequent to represent 10 of those 23 percentage points of growth over the prior year. Foreign currency effects account for just under two of those 23 points and thus, our business performance comprises just over 11% growth.

As has been the case all year, our public works and utilities end market has led the way in overcoming the macro-induced drag on our performance in the industrial and resources sector,



where our footprint of EPC accounts continues to suffer declines induced by capital project delays and cancellations. We also see the effects of capital project delays on our commercial and facility sector and markets.

On a product and solutions dimension, we continue to see strong performance with our utilities offerings for electric and communications grids, as well as water and wastewater utilities. Similarly, our 4D SYNCHRO construction offering continues to perform well, even despite the capital project delays we've mentioned. And again, AssetWise Information Management and Inspection solutions all had notably positive contributions during the quarter.

On the other hand, those oil and gas industrial capital project headwinds are now decelerating growth in the portion of ProjectWise, which enables major capital projects. On a geographic dimension, there are really no outliers from our trends here today, good or bad, reflected in our GAAP revenue results.

Greg has shared his tone of business commentary. Within that, some geographies where new business growth trends are noteworthy. A new business growth, which is primarily growth in ARR, is, of course, a precursor for us to future subscription revenue performance. Therein, we saw improving new business growth trends in geographies presumably benefiting from positive sentiment from rebounding oil prices, including Russia, South America, and the Middle East. We also noted some stability and modest return to growth in China, with still some work to do in Q4 for it to hit its targets.

ANZ had a disappointing third quarter for no apparent underlying macro reason, just slippage. Our perpetual license revenues are again down \$1 million for the quarter, relative to the prior year, and now represent less than 5% of total revenues. We continue to observe ongoing cannibalization of perpetual licenses into term license subscriptions and Virtuosity subscriptions, which, of course, is an encouraged trend for us.

Our professional services revenues are 10% of our total revenues, an increased \$7.4 million over the same quarter last year, representing 43% growth, most of which can be attributed to Cohesive-related acquisitions. Again, Cohesive Companies is our digital integrator business we operate to ultimately stimulate Bentley Systems software product pull through and digital twin adoption.

Year-to-date GAAP revenues are about \$693 million and 19% improved over the prior year. Adjusted revenues at \$697 million are up 20%. Similarly, subscription revenues adjusted for acquisition haircuts are improved 18% over the prior year, with about 3% coming from currency tailwinds, 5% from Seequent, and the balance from business performance.



Perpetual licenses are up \$2.6 million year-to-date, reflecting the trend towards subscriptions that I described for the third quarter. And professional services are up 65% year-to-date, also primarily reflective of the Cohesive Company's dynamics I described for the quarter.

Our last 12 months recurring revenues—which include primarily subscription revenues, but will also include certain services revenues, which we deliver under contractually recurring success plans—together increased 15.1% relative to the same LTM period last year. The onboarding of Seequent contributed about 3 percentage points of this improvement.

Our subscription revenue performance, our recurring revenue performance, and our ARR performance are each net of the Industrial Capex capital project headwinds we've discussed all year and again this quarter, and, of course, are exacerbated by our E365 consumption-based commercial model. These double-digit growth rates, even net of acquisitions and currency effects, were achieved by virtue of our comprehensive portfolio and our diversification, as well as growing momentum with our focused SMB initiative.

This SMB initiative disproportionately delivers new account growth, and new account growth is excluded from our net retention rate; thus, our net retention rate again rounds down to 106%, which is disappointing. Because of the trailing 12-month nature of this metric, it moves slowly. It has our full attention, and eventually, we'll benefit from our ongoing investments in user success.

A final comment here on ARR, which is up 26% over the same point in time last year. As mentioned last quarter, Seequent onboarded 13% of this growth. Since this is a constant currency metric, business performance accounts for the remaining 13% growth. This is an acceleration in growth relative to our Q1 and Q2 performance, but I remind you that due to seasonal patterns, our Q4 is our most prominent and important quarter in terms of ARR growth.

Our GAAP operating income and GAAP net income each unusually reflect a loss during the quarter. This loss is directly the result of an \$89 million one-time accounting charge related to the recharacterization of a portion of our nonqualified deferred compensation plan from an equity settled arrangement to an eventual cash settled arrangement. Greg has explained the executive retention dynamics that directed our determination to undertake this root characterization.

So, let me just go through some of the financial effects of the transaction. First and most significant, we have a total accounting charge during the quarter of \$89 million. This is, for the most part and predominantly, the fair market value of 1.5 million shares converted from equity settled to cash settled obligations of the plan. Effectively, this is a share buyback with the cash



outlay for that buyback occurring far in the future. Of course, this portion shifted from equity to liability within the plan, reduced our outstanding share count by 1.5 million shares.

Going forward from the point of conversion, this portion of the plan converted into a cash-settled liability will be indexed to actual market performance for various mutual funds that the affected participants in the plan have chosen as tracking indices. The performance of those funds will require a presumably nominal mark to market each quarter and will result in a corresponding non-cash charge or credit to operating expenses. During this third quarter, for example, that mark to market was \$1 million, a reduction to the liability and a reduction to operating expenses.

Prospectively, we will also be highlighting these nominal mark to market charges and also excluding their effects in our non-GAAP measures. Particularly in this initial quarter of impact, the quirky accounting required to establish the arrangement is obscuring true underlying performance. So, we've adjusted to neutralize it with non-GAAP measures. And that is best reflected here in adjusted EBITDA, which, for the third quarter, is \$85 million, and an EBITDA margin of 33.6%.

This brings year-to-date adjusted EBITDA to \$237 million and a margin of 34%. This year-to-date adjusted EBITDA is up 25% over the same period last year. As a reminder, the seasonality profile of our operating expenses is heavier in Q4 than other quarters. Further, we continue to invest for growth to the extent we can still achieve our measured margin expansion targets. Accordingly, I refer you to our previously shared financial performance expectations for the year, which we don't endeavor to modify at this time.

With respect to liquidity, our third quarter GAAP operating cash flows are 47% improved over the same period last year and also reflect an improvement of 18% year-to-date, compared to the year-to-date period last year, and 27% improved for the third quarter LTM period, compared to the same LTM period last year. Notwithstanding, a great cash flow quarter for us, there can be a fair bit of short-term volatility and seasonality in our cash flows.

I also refer you to our operating results call last quarter, where we highlight some year-to-date cash flow trends and cash inflows, as well as some unusual acquisition-related cash outlays. We continue to expect that on average, our business will efficiently generate cash flow from operations at a ratio of 85% to 90% of adjusted EBITDA.

As of the end of September, our net debt was \$1.18 billion and net total debt leverage pro forma for Seequent was 3.4 times. Our net senior debt leverage rounds to zero times, given \$156 million in cash on hand and only \$68 million drawn on our \$850 million senior secured revolving credit facility. \$782 million remains fully available to borrow on the revolving credit



facility. I had previously projected less than four times total leverage after the Seequent acquisition, and we're actually slightly more favorable at present and trending towards further deleveraging.

As I mentioned, I think leverage under three times is optimal for us. But our business with its predictable and visible cash flows carries debt very tolerably. Our capital structure is in great shape, and we're fully able to support our business strategies, including ongoing programmatic acquisitions, which we do intend even opportunistically.

A final comment or two on our annual outlook or guidance, if you prefer, which we're not changing at this point. We continue to work hard to deliver on the upper end of ranges, and maybe with excellent performance get ahead of some of the metrics, but a significant part of our annual ballgame is the fourth quarter. We still have lots of work to do and lots of opportunity. Also, I remind folks that we have a fair bit of Q4 expense seasonality, and we're reinvesting in our business for growth beyond our normal margin expansion targets, which we regard as a very high priority. It's not our highest priority to eke out short-term margin gains beyond this. We'd rather see investment for growth and higher future returns.

And I suppose the last here I'll give on our annual guidance is to look towards the low side of the range we gave for outstanding shares. This is the result of the \$1.5 million share repurchase with the deferred compensation plan, which we've talked about at length here. And with that, Carey, I think we're now ready for some questions.

Carey M: All right, we'll start with Matthew Broome from Mizuho.

Matthew Broome: Thanks very much for taking my questions. So, it's great to hear about improving new business growth in the Middle East and Latin America. But to what extent do you anticipate this will translate into a broader rebound for resources customers? And given that many of those customers are on consumption contracts, is it possible that a rebound could happen quite quickly if and when EPCs start rehiring?

Greg B: Matthew, I think it would correspond to EPCs starting rehiring. I think that—my guess is that depends on their changing business mix to do with energy transitions. As far as rebounding energy prices, it's certainly clear that even fossil fuel OPEX is really important and is not in jeopardy, and that's a great opportunity for us. For instance, with asset lifecycle information management that we mentioned is on a good upward direction.

But the nature of capital projects for fossil fuels, I do not think we can—I don't think I know enough to be sanguine about that. But yes, if EPCs resume hiring for projects of any sort, that



will immediately put our ProjectWise and applications back to work. We have terrific new applications for wind power, tunnels, and so forth, directions that the EPCs would like to move toward. But they've got to change the direction of their ships and build up new backlog in those directions. And I don't feel qualified to comment on how quickly that can be done.

In the countries, the energy prices are helping them spend money on public works and utilities. That's the immediate impact we already see.

Matthew B: I see. OK. And then, it sounds like Virtuosity had another strong quarter. Do you anticipate further increasing the size of your inside sales force? And are there other ways you can sort of further accelerate Virtuosity's momentum?

Greg B: Yes, I think one of the spending directions David Hollister referred to toward the end of his remarks here, where if we—of course, we're going to be sure to meet our margin target for the year. But if we can add faster to headcount in Virtuosity while doing that, we would, because it's a fairly—we're not at the point of diminishing returns in new application usage prospects in SMB. So, yeah, we want to put that accelerator closer to the floor over the coming year.

David H: Indeed. It's at the front of the line for resource allocation. And it's not just headcount. It's also continued investments in technology and marketing tools and Google AdWords. And we're seeing success, so we're going to keep feeding the meter there.

Matthew B: That makes sense. And then, maybe, just one last one from me. Just in terms of M&A, does your current focus remain the geotechnical and environmental opportunity? Or are you looking at other opportunities as well?

Greg B: I think the opportunity set presented by the infrastructure spending bill and energy transitions are very significant and should have everyone's attention, in terms of potential return on new investments.

Matthew B: Perfect, thanks guys. And David, best of luck in your new role.

David H: Thank you.

Carey M: Next, we'll go to Jason Celino from KeyBanc.

Jason Celino: Perfect, good morning. Thanks for taking the time today. Maybe just a couple for David. You know, the slight acceleration in ARR constant currency, ARR to 13%. Nice to see. It sounds like the business is doing well. Maybe help us unpack that acceleration over the last quarter.



David H: Yeah, it's very much along the dimensions of the tone of business sentiment that Greg described in all of those areas. Again, it's an acceleration from—I think we showed 10% year-over-year growth in ARR constant currency net of onboarding Seequent in each of the first and second quarters. So, this 13% is pretty impressive.

It includes some fairly nice wins related to communication towers solution, which contributed close to 3 million of that ARR growth during the quarter, which wouldn't have been included in prior quarters. So yeah, it's across the board. It's really impressive.

But I'll, again, caution it's the third quarter. We need to do that again in the fourth quarter, because so much of our ARR growth opportunity happens in the fourth quarter. It's just the business cycle we have and the seasonality we have. So, I'm cautiously optimistic about the acceleration. But I'm also cautious, in particular, that the fourth quarter is much more important for us than the third quarter.

Jason C: Gotcha. And that's probably the main reason as to why you're keeping the guidance unchanged, but giving us some of those hands-on direction.

David H: Yeah.

Jason C: OK, perfect. I'll keep it there and get back in queue. Thank you.

Carey M: Yes, we'll next go to Matt Swanson, in for Matt Hedberg, from RBC.

Matt Swanson: All right. I'm having a little trouble getting my video going, but that's okay. Greg, ESG has certainly been a big topic since you guys came out, and especially timely, like you mentioned, with the infrastructure bill, the climate summit. Could you just talk to us a little bit about how this theme is tangibly driving your business today, as well as maybe, like, any qualitative changes you've seen in customer conversations that might give us some idea of the impact we could see in 2022?

Greg B: Well, even with what can be spent under new government programs—not only in the U.S. but elsewhere—it's a fraction of a percent of our infrastructure capacity that can be new. So, extending the lifetime of existing infrastructure assets is necessary, but they now need to be resilient for environmental adaptation and energy transition. And digital twins are the way to do that. I think when these AEC CEOs, we referred to their *going digital* survey, when they recognize that digital twins are going to help them participate in the OPEX lifecycle of the assets they engineer—and everyone's doing that for sake of safety and resilience and energy transition—it sort of puts the digital twin opportunity front and center.



And the digital twin opportunity and the ESG imperative are closely linked because we can't engineer enough new infrastructure to make a difference. It's improving and increasing the fitness for the purpose of the infrastructure we already have that is not only our focus now, but I think opportunity as the engineering firms see it on behalf of the owner operators. So, remember, we want to help the owner operators get to digital twins for better asset resilience and throughput with the engineering firms being developing for our iTwin platform, their cloud services, that will be a new business opportunity for them and helping cover the owner operators, so it's not limited to our sales, but sales by the engineering firm.

So, having surveyed the CEOs of the engineering firms for the first time, we're glad to see some alignment in the recognition of that opportunity because we need all that help to get to the owner operators.

Matt S: Yeah, that's fantastic. I guess kind of building on that same theme, we've talked about the pandemic *going digital* faster. So, as we see recovery kind of progress at different states for different regions, are you starting to get a better sense of the durable trends that are emerging from the pandemic, especially in terms of the long-term pace of *going digital*? I guess, as people go through the recovery, are you seeing any sort of hesitancy to continue the progress? Or is it kind of a newfound emphasis that will continue on?

Greg B: I think it's a newfound emphasis that will continue on, but particularly for infrastructure engineers, a portion of their work had been on job sites not limited to company offices. And when they had to virtualize everything, they realized they can virtualize that too with digital twins of the job sites and for remote inspection of the assets and so forth. It was a necessity during the pandemic, but it's an opportunity hereafter for them to work on more projects anywhere and have a greater set of opportunities. They also can grow their workforce by adding people anywhere, and that is already a huge focus. For instance, for these AEC CEOs, they realize that competition for talent is never going to end. It's all the more intense and being virtualized through our collaboration methodologies lets them add the talent wherever they can find it. So, those are things I think are never going to go back.

Matt S: Yeah, fantastic. Thank you, guys, for the time.

Carey M: We'll next go to Gal Munda from Berenberg.

Gal Munda: Perfect. Can you hear me now?

Greg B: Yes.

David H: Yes.



Gal M: That's awesome. Hi, guys. Thanks for taking my questions. The first one is just, I'd like to expand a little bit on Matt Broome's question earlier when he said, when he was asking about trends in the underlying business, especially on the energy side. So, David, you mentioned that if you didn't have the headwind from E365 usage, you'd probably have about 2.5 percentage points better net retention rate to what you're seeing today. My question there is, at what stage do you anniversary that kind of headwind where the current trends normalize, so that headwind year and isn't a headwind anymore? Maybe not a tailwind—let's forget about re-hiring, just if the current trends continue, at what stage you feel like you've cleared—you've cleared the path for kind of a normal run rate of what you're seeing?

David H: Yeah, if you look at sort of the quarter-by-quarter progression of the net retention rate, we've now got two quarters of 106%, which is—we certainly acknowledge is disappointing, certainly is for us. But it's a trailing 12-month metric. So, there's—we're not going to bounce back to 110% next quarter, it's just going to sort of gradually pick up. And what will help is—Yeah, we anniversary usage reductions from the EPC accounts that were affected by those macro headwinds, where they're going from really great performance to the lower performance. But we also begin to include the effects of new accounts, right? So, our ARR seems to be going in the opposite direction as the net retention rate, and that's because the new accounts—they're not part of the net retention rate, yet. So, when those start to roll in, as well as the anniversary fully 12 months behind us, the good performance from the EPCs, then we will see that start to come back.

Greg B: It's a modest caveat to that is we don't have experience with the SMB subscription annual renewals, yet. And we will six months from now.

David H: I would also add that probably more fundamentally, and thinking about this long-term, our investments in User Success, 600 people focused on retention and adoption and expanded adoption, will continue to build and grow momentum going forward.

Gal M: Right.

Greg B: Now, we're doing—for E365, we see the difference in greater accretion in the accounts that are in E365 than the universe of other accounts for that reason. But it's obscured by the EPCs all being on E365 still.

Gal M: Right, gotcha. As a follow up, we talked quite a bit about the opportunities in the infrastructure bill in the past. But now to thinking about the climate incentives that are coming, it almost sounds like there could be a new era, a new opportunity of investment or CAPEX that will go into the green CAPEX side.



So maybe Greg, for you, if you think about the green CAPEX opportunity today, the way you see it maybe from a total exposure of the business versus the growth contribution to the business, and how do you imagine that kind of shifting over the next five years? Is it fair to assume that traditional OPEX is the one that provides subscription revenues for you from that side, but a growth—especially in the utilities and stuff—comes mostly from the green in the future, because that's kind of a trend that will help you?

Greg B: I think it is most. That's why I wanted to show the mapping between the green CAPEX priorities and the public works and utilities sector—plus resources, which for us, is going to be environmental, mainly in the future. So, I think that there is a strong correspondence between what civil and structural and geotechnical engineers work on, and green CAPEX. And it doesn't have to take long.

For everything that's done industrially for renewables, you need to connect up the grid. And that needs to be considerably expanded and fortified, and there isn't yet enough funding allocated for it. But it won't happen that we add renewables and not capacity to use the power where it's needed for electrification.

So, I think our accounts feel very good about their backlog for years to come. Not only is it good business, but it's good for getting green and getting safer.

Gal M: Do you think that could be a supercycle in terms of the CAPEX investment that drives a very long-term opportunity?

Greg B: So, this gets into—for a super investment cycle, we would need to have private investment in infrastructure as well. But there's more than enough private investment that would like to invest in infrastructure. And how that gets enabled and facilitated is a question for policymakers, but the enthusiasm in ESG investing easily translates to an enthusiasm for infrastructure and green CAPEX investing.

I guess you hear some of that coming out of Glasgow with banks supporting green CAPEX investment and so forth. Together, if we get private investment added to the government investment instead of either-or, that could lead toward a supercycle, I suppose. I believe it's necessary, also, I just don't know how quickly that can come about.

Gal M: Thank you so much.

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



Joe Vruwink: OK, great. Hi, Greg and David. Other than just 4Q being an important quarter in terms of magnitude and wanting to appreciate that appropriately in the forecast, is there anything you're seeing from either a pipeline standpoint or hearing in customer conversations that's giving you pause as it relates to execution here at year-end and new business growth targets?

Greg B: Joe, there was something I was hearing that gave me pause. It was at the AEC Advisor CEO Summit. So, you had the CEOs there, who do half the infrastructure engineering work in the world. And there were murmurs of apprehension that this infrastructure bill in the U.S. might get put off for a year. That is to say, from previous experience on roadway bills and so forth, if it's not going to happen, sometimes a year extension occurs. That would have been a very big concern to the expectation everyone has of their order books filling.

So, it's a great relief that we now know that doesn't need to be a concern. That the infrastructure bill isn't law yet, but the obstacles are out of the way. Of course, it mainly refers to next year and years after at this point, but there was a weight of some worry from the experience that if you put something off for a year, it could end up getting put off forever. We don't have to worry about that now, thankfully.

Joe V: And maybe the infrastructure bill will just be my follow up without quantifying anything, because I know that's still tough to do. What would be your expectation for timeline if funding gets allocated 1Q of next year? When might be the earliest Bentley starts to see activity as it relates to just your customers planning? They're going to have to spend or hire to support increases in their backlog. When does Bentley see that in your own new business growth?

Greg B: Well, I don't think it needs to take many quarters or a couple of quarters after that. But the most prescient thing I think I heard at that AEC Advisors CEO conference—and we're going to have the head of AEC Advisors be with us in our keynote on December 1st, as I mentioned—but the head of the largest firms said, look, as an industry, in AEC, we're only going to be able to add to our workforce 1% per year. That's based on all the available engineers in school and coming into the pipeline or back out of retirement or whatever.

And obviously, the ambitions just to continue the growth rate—let alone increase the growth rate—require much greater productivity, therefore, and *going digital* is everyone's best idea for that. There's just no impediment to it, as once there was. We'll present some of the findings of this survey, but generally, the CEOs said that the impediments to taking to *going digital*, in general, are people in their own firm who haven't adapted yet to that, not constraints on funding or demand or needing to meet client deliverables, as we talked about.

Joe V: Okay, thank you very much.



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

Kash Rangan: I just unmuted myself. Congrats on the results. Greg, curious to get your perspective on the economic headlines that have been in vogue lately, which is labor demand being very high relative to supply, and also inflation. How is that impacting your customers? Or maybe it's not impacting your customers? What is your overall view on those forces as it pertains to your end markets' willingness to invest in technology?

And also, secondly, I'm curious to see what are the milestones that we should be looking at as this infrastructure bill really takes hold and leads to actual tangible business? What are the things that you're looking for that we should be looking for, therefore, to see how that could start impacting Bentley even more positively? Thank you.

Greg B: Well, on the first question, the labor supply constraints are already affecting infrastructure engineers there. The engineering firms are hiring from one another. But there is not a fresh supply possible to do the increased work of structural and civil and geotechnical engineers. So, that's why *going digital* is important. As far as inflation and materials and supply chain constraints and so forth, that doesn't as much affect the portion of the project cycles where we're involved, which is closer to the front end.

I might say with the infrastructure bill, half of it that is about, of course, roads and bridges. And there's a template for that. That's happened in the past. But the other half of the expenditures are in these other categories, where I think the milestones would be that the legislation directs the government to set up new programs for grid, for transit, and so forth.

Some of the programs explicitly encourage digital investment. Not in big tangible ways, but how those get organized and when they get organized and who's leading them up will make a difference. They're new. You can't look to history to see how that's going to happen.

Kash R: Got it. This final thing, this metaverse thing, that pertains to more consumer. Does Bentley have a take on metaverse? Is it basically digital twins, your way of playing the metaverse concept or is there other broader implications for your business if metaverse were to take off?

Greg B: Well, reasonably enough, it's going to start with immersive 3D environments for consumer things. But the technologies for greater immersion and performance are going to be great for ways of experiencing digital twins. So, we want to, with our iTwin platform, support any of these visualization environments. In other words, it's way beyond the HoloLens and so forth. There's tremendous investment going into.



But the content you will want to be immersed in—on the industrial side, on the infrastructure side—has to do with immersing yourself not only statically through a rendered image, but using that computing power to say, what was the history and construction, the design alternatives that were considered, and what's the path of construction in time and space, and what's going to happen if we don't maintain this asset, and so forth.

That's the time slider, we say the digital chronology. And that's where—you don't get that from an immersive environment. You get that from a ledger of change in our iTwin platform to bring together the ET, the IT, and the OT. So, we never have had in mind specializing on the last mile of how that emergent experience occurs. And it's just great that there's going to be lots of investment in making that better and better.

It will make the content in a infrastructure digital twin all the more valuable because it can be experienced in these better ways. That's what, in the case of NVIDIA, was being demonstrated today to show the potential of their Omniverse.

Kash R: Good to see you, Greg. Thank you.

Carey M: All right, everybody. We're going to wrap it up there. Thank you for attending the call and we'll see you next quarter.

Greg B: Cheers.

David H: Thank you.