Bentley
Advancing Infrastructure

Q420 and Full Year 2020 Earnings Call Transcript

Carey Mann: Good morning, everyone, and thank you for joining us for Bentley Systems' Q4 2020 and Full Year 2020 Earnings 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 earnings 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. Today, Greg will begin by reviewing business developments and our progress over the last quarter and in 2020. David will then take you through a review of the financials results and our outlook for 2021. And with that, I'll turn the call over to Greg.

Greg Bentley: Greetings and thanks to each of you for your attention. We were together for this purpose for the first time in mid-November last year, and I began then by reprising our roadshow introduction from our September IPO and subsequent follow-on equity offering. We have since then been back in the capital markets yet again for our convertible debt offerings last month. So, I certainly don't need to spend our time today, as we did last time, on introductions to BSY. Also, when last we met on November 11th, our annual *Year in Infrastructure* Conference had just concluded, so I fully described that at the time.

Our *2020 Infrastructure Yearbook* has just been published, and I highly recommend that you visit our website to review the work of our users in advancing infrastructure by going digital. We would also be glad to send you a physical yearbook on request to our investor relations. The yearbook brings together hundreds of what are effectively case studies organized by categories of users' nominations and includes for each the playbook of Bentley System software, which enabled their advancements. Along with the winners and finalists selected by the juries, there are special recognition awards, including for digital twin distinction and for exemplary sustainability. Among other purposes, this would especially inform your likely interest in Bentley System's handprint for what I call ESDG: Enabling Sustainable Development Goals.

So first, by way of corporate developments, we issued convertible debt maturing in five years, which met with a satisfactory reception in the capital markets. The offering was upsized from $500 million to $600 million, in addition to which, the 15% overallotment was promptly exercised for gross proceeds of $690 million. We secured a coupon of 1/8% for a conversion price of initially $64.13 per share. And we entered into a cap call, which costs about $15 million,

so that, effectively, the exercise price becomes $72.98 to reduce overhanging dilution for our stockholders. And, at the same time, we updated and expanded our bank credit facility.

Now, David will cover the impacts on our balance sheet subsequently to what we have filed as of yearend, but I think that the combination of the convertible offering and the expanded bank credit facility, taking advantage of unprecedented favorable market conditions in both cases, is much in the interest of our common stockholders as follows. Recall that our IPO was unusual in offering only secondary shares, so generated no proceeds to the company, which, however, bore the costs.

Then, our follow-on offering did raise almost $300 million through the sale of primary shares, but this was applied to pay down the bank debt incurred to finance the almost $400 million extraordinary dividend that we paid last summer before the IPO. So, the purpose of the convertible capital raise, along with our expanded credit facility, is to create, at historically low cost of leverage, capacity for us to take further advantage of potential acquisition opportunities. Indeed, as a public company, we had been reasonably asked if our pace of growth from acquisitions, which has added about 1.5% of revenue annually in recent years on average, can increase. The cash required for this traditional programmatic pace of acquisitions, and by our dividend, fits well within our rate of operating cash generation, leaving excess cash flow to be applied toward stock repurchases over the long term.

As a public company, we are now seeing a greater flow of potential deals. We remain differentiated as an acquirer by being willing and able to do the hard work of consummating smaller deals to fill whitespace. But at the same time, the historically high valuation multiples, which pertain presently, are inducing potential sellers, including private equity funds, to test the waters with prospective strategic acquirers. By virtue of our capital raises, while we will retain our discipline, we now have the wherewithal to consider deals, which would be both substantial and accretive. However, no promises.

And, speaking of acquisitions, since last we were together, late last year Cohesive Companies, our main captive digital integrator, acquired SRO Solutions, headquartered in Manchester, U.K. This adds geographic and industry scope to our retinue of consulting and cloud services around IBM's Maximo Enterprise Asset Management system, which we are working to advance to infrastructure digital twins. SRO is a global leader in maritime and industrial applications of Maximo and has developed specialized product offerings for remote environments, which are challenged by inconsistent network connectivity and stringent regulatory requirements for safe OPEX in places such as offshore oil and gas platforms, shipping, and Antarctica.

We have just announced the acquisition of Australia-based E7, a leader there in software for the heavy civil construction work phase. The integration of this proven technology will extend our SYNCHRO 4D construction modeling portfolio to include site and equipment logistics in progress capture. Our digital construction works joint venture with Topcon will help to further globalize its reach. We are acting upon our vision for construction digital twins, which advance

3D designs to 4D models of time, space, and cost, rather than competitive alternatives, which for actual construction performance, tend to dumb down 3D to digital 2D. Heavy civil construction performance contractors can immediately apply our advancements, accelerated by the virtualizing lessons of 2020.

Back to operating results. Even though 2020's fourth quarter is our subject today, we have already presented some aspects to you back in mid-November. We're also here to provide you today our first full-year financial outlook, although I think we all look forward to future normal years where greater visibility can be expected than this year. After I offer my qualitative observations about 2020 and some plans and expectations for 2021, David Hollister will go through all the financial numbers, and then there will be ample time for your questions.

My own objective for these sessions is to share my understanding and interpretation of what's behind the operating results numbers themselves. As of last quarter, we had seen a notable shift in the pattern and trends of usage of our applications, which could have been belied by just focusing on the overall totals. So, I went to great lengths and into great detail to explain and quantify the changes from the first half of 2020—which had entirely to do, then, with the primary geographic progression of the pandemic—into the second half, where the secondary impacts diverging across infrastructure sectors became prevalent. I reported the actual degrees of usage impact by sector and called out, in particular, the sudden downturn in the engineering workload of the industrial-centered engineering procurement construction contractors—EPCs—among our accounts, which correlated with dislocations in the fossil energy markets.

Now, the bulk of our revenues and ARR are associated with annually reset contracts paid in advance, and thus not sensitive to short-term usage fluctuations. So, in general, we remained resilient throughout the year, even though overall application usage had, in Q3, declined from year-earlier levels. However, it happens that the EPCs tend to be large, global accounts who were early takers of our E365 commercial program, where we charge per application per day. So, their relatively large proportion of a usage decline have suppressed our revenues, our ARR, and thus, net revenue retention somewhat. The almost offsetting gains in other sectors and accounts, being less concentrated in the E365 program, did not similarly flow into these operating results.

Now, we favor the E365 program because it virtually embeds our success force of subject matter experts to help our accounts with their priorities to instill digital workflows and, thus, to increase usage of our software. This has tended to lead to more or less steady growth in ARR and revenue from E365 accounts in normal times. So, we have pressed on with the incremental upgrade of our existing enterprise subscriptions to E365, including throughout 2020's fourth quarter. An attraction of our program, versus the enterprise agreements of our principal competitor Autodesk, is that the commitments Autodesk requires are use it or lose it. So, especially in times like these, accounts naturally prefer our contrasting economics, where they pay for only what they actually use.

Nevertheless, having observed the case-in-point of our new cyclical vulnerability from the EPCs, we are now preferring to agree with many new E365 accounts that a collar—symmetric and negotiable but typically, say, 10% up or down—will pertain from each year of an E365 contract to the next. That way, we still have the right healthy incentives, which drive our opportunity to grow substantially while at the same time being protected on the downside from too much portfolio volatility exposure to macro trends.

Going back to reporting by infrastructure sector, I'm going to cover only a very brief update for each, rather than all that previous detail. This is because from Q3 to Q4, and frankly foreseeably, all of the sector directional trends that I explained last time have generally continued. I will just highlight anything new.

Now, getting on to specifics, the EPC drag has only become somewhat more pronounced. I do not believe we can expect the workloads of these accounts to recover until they have updated their own project mix to work more so on energy transitions. And, that will probably take at least multiple quarters.

However, and now finally to get to the more current tone of business, I am glad to report that the global green shoots that we sniffed in November have continued, and by the end of 2020, the overall rate of application usage had grown back to surpass the pre-pandemic levels of a year earlier.

Obviously, the year-over-year comparisons now get easier throughout 2021, and I don't anticipate that application usage will continue to warrant such a minute focus. But to close out the comparison by sector, recall that in the pandemic depths, commercial facilities infrastructure lagged the most, with industrial resources infrastructure not much better, while public works and utilities infrastructure remained most resilient in terms of application usage.

Also, recall that we have a central proportion of products and accounts that are not specific to an infrastructure sector, because they're applicable or participate in all sectors, consisting of applications for general modeling—including MicroStation—for general project delivery—including ProjectWise—and for the structural and geotechnical disciplines. In our experience, these applications tend to be applied in the same proportions to projects within particular infrastructure sectors, as the proportions pertaining to our products and accounts that are sector specific.

I bring this to your attention because I want to highlight the particular brands, among our many here, which grew most notably in the relatively prosaic year of 2020. Where run rate is defined as ARR—including annualized term licenses, plus last 12 months of license sales where applicable—and by growing notably in run rate, I mean by millions of dollars and by double digit percentages.

Among the products used across all sectors, I would call out for notable run-rate growth: ProjectWise, which came into its own for virtualizing infrastructure engineering during 2020, primarily as an Azure cloud service. Now incidentally, we don't count ProjectWise within application usage, as it is typically used along with an application, either ours or Autodesk's. I also call out PLAXIS, our flagship brand for geotechnical engineering. The analysis of subsurface foundations could be called the infrastructure of the infrastructure. And, our continued and increased investments in geotechnical are resulting in a greater proportion of geotechnical engineers' work being done through 3D digital twins, reducing project and asset risk and increasing environmental resilience.

Turning now to the particular infrastructure sectors, after the third quarter, commercial facilities had been the most impacted by application usage decline from a year earlier. But in the fourth quarter, commercial facilities improved somewhat to be down only by mid-single-digit percentages from the fourth quarter of 2019. And in fact, among our applications, OpenBuildings achieved notable run-rate growth during 2020.

In the industrial resources sector, the year-over-year decline in application usage intensified to reach double-digit percentages below the fourth quarter of 2019. However, among our simulation application brands, SACS and MOSES—which we regard as particular to the industrial resources sector as they are used for offshore structural and wave motion analysis—achieved notable run-rate growth during 2020. This is by virtue of their widespread, and we consider market leading application, including in China, to offshore wind structures, and now for floating, as well as fixed, offshore platforms.

This is also an example of the energy transition I mentioned earlier from these products being used previously or in the main for offshore oil and gas production facilities. And, to conclude with our mainstay, in the public works and utilities infrastructure sector for accounts and products respectively, application days increased from the fourth quarter of 2019 by low- and mid-single-digit percentages. And among application brands particular to public works and utilities, notable increases and run rate were achieved by OpenRoads and OpenRail, which we consider to be the global market leaders in their respective domains, and by OpenSite and OpenBridge.

Finally, for iTwin cloud services, which introduced digital twins functionality for any user or account, we did reach our 2020 goal to end the year with ARR in eight figures, above $10 million. Today, we-re reporting 2020's actual growth in revenue, ARR, and run rate, which obviously exceed these flattish trends in daily usage of our applications. Of course, almost a third of our revenues are from ProjectWise and AssetWise for cloud services that grow faster than our traditional on-premise applications.

And again, we don't include them in the application days I've been quantifying. But, I would like to highlight a driver of our revenue growth, which for 2020 we measured for the first time. When we quantify application usage, it's in aggregate. We're counting a day of any application as

equivalent to any other for this purpose. But among our application universe, some are much more specialized, better fit for purpose, more valuable, and thus more expensive for application day than those that are more generally purposed, such as at the extreme MicroStation, where they all began.

So, a constant source of new business growth for us is the upsell of a particular user to a more specialized product for greater fitness for purpose to their infrastructure engineering project work. A long-standing example would be users advancing from MicroStation to OpenRoads. A newer example would be advancement to OpenWindPower. Again, that's just been introduced in the past year for energy transitions.

Most of this application mix accretion, to give it a term, still lies ahead of us. So, focusing on the makeup of our new business growth, this application upsell phenomenon results in apparent attrition from the incumbent product, but more than offset net by the accretion in the incremental product. We have previously not been able to quantify this growth rate factor that I've vaguely referred to as increasing specialization.

For 2020, application mix accretion accounts for about 2.5% of our applications' revenue growth. Now, speaking of new business growth, it is an explicitly defined measure in our company. The formulation of which is shared in the incentives for every quota carrier and every territory executive and every operating and corporate executive.

As I suppose every company does, we weight our dollars of new business growth—that's all accretion and new sales, net of attrition—by coefficients which reflect our assessment of their relative commercial value, generally based on their degree of recurring nature. We finetune these factors at the beginning of every year to create what we regard as the appropriate incentives. Here by way of example is our new business growth waiting for 2021. The highest coefficients correspond to our priorities: cloud services for ProjectWise, and for asset and network performance, and iTwins, and for Virtuosity, and E365 subscriptions. So, to report on our 2020 new business growth by region, the laggards in terms of quota achievement were Middle East and North Africa, presumably because of their energy market exposure, and to a lesser extent, southern Europe.

On the other extreme, while Southeast Asia did not quite achieve its ambitiously set new business growth quota, the region did surpass 2019's new business growth. The U.K. both exceeded quota and 2019 in new business growth, and the region which led the way in new business growth, surpassing both quota and 2019, was greater China—thanks to strong performance in the fourth quarter, and probably because physical business reopened there earlier than elsewhere.

It's worth noting that our company did not set materially lessened new business quotas for 2020, nor reset lower quotas after the pandemic deepened. Our new business growth budget, set early in 2020 but after the pandemic outset, was very nearly the same as 2019's actual new business

growth. I'm pleased to say, summarizing 2020, that we came very near to achieving our new business growth budget for the year, thanks to a strong fourth quarter in which we did achieve our budgeted new business growth.

While David will shortly review our 2020 revenue growth results, I would like to point out that during the year, we improved what I could call the quality of our revenues. Just as in the relative coefficients we apply to weight new business growth for our quota carriers and executives, we all would give preference to growth in recurring revenues. In 2020, as our perpetual license sales declined from 2019, rather surprisingly by only mid-single digits—despite what one would have considered an economic environment where accounts would be less likely to make capital purchases—and as our episodic professional services also declined by mid-single digits, our recurring revenue proportion indeed correspondingly increased.

So, turning the page now to 2021. The obvious challenge for this financial outlook is that we can be fairly confident that by the end of the year, economic growth prospects will have improved, but we can't be very confident about how soon the turnabout will take effect. So, we must rather fully expect to be updating our annual financial outlook after each quarter as this year actually unfolds.

In our annual business planning at Bentley Systems, we work out what we can and wish to afford spending in each caption of our discretionary cost and expense in relation to our forward-looking ARR updated monthly. This we call our head cost alignment model. We accordingly manage to what loosely corresponds to our EBITDA margin percentage. Now, we do that at our budgeted constant currency exchange rates throughout the year so we don't zig and zag in our resource commitments just because of something FX rates that we can't control. But, we are not very vulnerable to changes in the demand environment in this respect because that's constantly reflected in our ARR book on which our head cost alignment discipline is based.

So, as to our targeted operating margin improvement of 100 basis points per year, it could happen that because of FX volatility, adhering to this at budgeted exchange rates will nonetheless result in a somewhat different indicated improvement at actual FX rates, particularly as our natural currency hedge, our colleagues are approximately distributed in relation to our revenue currencies. That's good, but it's not perfect.

But, to get to the point, in the year 2020, the sources of margin noise were much larger than foreign exchange rate volatility and include the outsized, favorable, and compounded impacts of decreased spending on travel, physical events, and, out of caution, colleagues raises and incentives. As David will explain, most of 2020's operating margin improvement is of this windfall nature, rather than as a consequence of our intended end-cost alignment.

Hence, we've modeled a normalized 2020 operating margin scenario, as he will show next, from which to base our annual 100 basis points improvement objective for a correspondingly normalized 2021. Put another way, while committed to achieving what amounts to our annual

EBITDA improvement goal, we otherwise wish to benefit the future as much as possible through thoughtfully targeted spending, even at the cost of what otherwise could have been yet higher current margins.

Considering this, our planning exercise for 2021 has centered around how best to allocate the investments to initiatives, which we believe will sustainably improve our organic growth rates, as afforded by spending in 2021 just these windfall 2020 points of margin. Incrementally, and outside our financial outlook here, we do also expect to inflect our growth further upward through increased acquisitions, as I mentioned at the outset.

Because the majority of our SAM can be achieved through accretion within our existing accounts, the highest priority we have is fully funding our new Success Advancement group. We did not have this organization nor most of its functions a year ago, and it is already at a headcount of 169 positions and growing. It directs our E365 success plans—delivered primarily by our Product Advancement group's 1,000-strong success force of credentialed subject matter experts—through its success managers and support account managers. All accounts, including SMB—small and medium sized businesses—are served by its frontline success managers and licensing success communications and learning content teams.

The second new initiatives that we're fully funding in 2021 is to sharply increase and to digitally enable our sales resources directed at SMB accounts. As smaller engineering organizations positioned themselves for increased opportunities and infrastructure, and as they react to Autodesk's aggressive pricing measures, our already competitively stronger products would be favorably considered if we could gain their mindshare. Heading a higher profile as a public company has helped to open this door for us. but, we have also needed to increase our own mindshare dedicated to SMB.

Now, one could say that during 2020, all companies have de facto pivoted to inside sales. But, we experimented creatively and successfully, I think. We originated Virtuosity Inc. as a captive reseller, offering a unique virtuoso subscription, primarily for SMB engineering practitioners. The unique offering combines virtually delivered expert assistance with our applications, all available through our first ever e-commerce website. This new business has grown so steadily that for 2021, we have determined to mainstream and globalize these virtuoso subscriptions and to add to virtuoso's offering the combination of perpetual licenses and such expert assistance. From startup a year ago, Virtuosity is now up to 90 inside sales colleagues with another 10 currently being recruited. And, we are at work on a full program of marketing and self-service systems investments to support them. Beyond Virtuosity, throughout every function in Bentley Systems, we are reorganizing to newly focus on this SMB opportunity.

The third initiative that we've increasingly prioritized in 2021 is our investment in digital integrators. We think that all infrastructure owner-operators will benefit from and will ultimately apply evergreen digital twins for their projects and assets. But, we realize that most will not be self-sufficiently capable of digital twin creation and curation. The requirements for this are to

combine OT, ET, and IT through continuous surveying, improving the quality of newly opened, previously dark engineering data, and introducing newly enabled machine learning and analytics. Long term, the providers of these digital integration services should be the infrastructure engineering firms. They increasingly realize that their survival depends on evolving to a better business model than their current default of selling services by the hour. And, 2020 has driven home that going digital is of the essence for improving their economics. A constantly growing number of the most enlightened firms are working with iTwin platform to develop proprietary analytic services.

But, there do not yet exist commercial templates for digital twin integration services, and we regard that it is too much to expect the engineering firms, which in general are not R&D minded, to discover how to make this business work both technically and economically. As the first mover, we have a lot to gain from accelerating that, rather than waiting for these stars to align. Hence, our self-help digital integrator program of captive trailblazers.

Digital Construction Works is our 50/50 joint venture that we co-founded with Topcon Positioning Systems in 2019. Its business plan, including a strong proficiency in applying our SYNCHRO software for advanced work packaging, has been disrupted by the same slowdown in industrial CAPEX, which affects our EPC accounts. So, it has pivoted to the heavy civil 4D construction modeling opportunities, which I mentioned in conjunction with our E7 software acquisition.

We started Digital Water Works from scratch to extend our market leading OpenFlows water modeling software and our iTwin platform to operations digital twins for water utilities, which require a digital integration within their enterprise environments. Initial projects are now underway, but we will accelerate this in 2021. You likely have seen Autodesk's recently announced acquisition of Innovyze for $1 billion to begin to try to catch up. During 2021, we plan to incubate further domain-specific digital integrators, starting with Digital Tower Works, to embed our iTwin-powered OpenTower software within the enterprise environments of major communications infrastructure operators, enabling them to expedite their 5G rollout through telecom tower digital twins.

Our Cohesive Companies' acquisitions enable us to hit the ground running with promising digital integrator skill sets and existing enterprise relationships. Both Cohesive Solutions and SRO, which I reviewed earlier, are leading integrators of IBM's Maximo Asset Management System, and our aspiration is to enhance each Maximo installation with infrastructure digital twin functionality. PCSG, acquired last fall and now globalizing from the U.K., are the thought leaders for digital twin advisory services to owners. And, completing the picture, our iTwin Acceleration Ventures Fund seeks to extend the reach of our iTwin platform and of our digital integrator experience curve through minority investments, where we can ultimately benefit as well from investment gains.

So, this new digital integrator portion of our business consists of the several startups, which, of course, are initially unprofitable, and these established companies delivering primarily professional services, which, even at full maturity, are not capable of generating operating margins comparable to our software profitability expectations.

Lastly, many of our acquisitions are of earlier-stage companies, which necessarily are initially relatively dilutive to our ongoing operating margins. In general, we undertake to absorb and offset these dilutions in stride. But acquisitions of greater scale could cause us to somewhat reset our point of departure for operating margin improvements.

My point in going into detail about these 2021 objectives is to explain our rationale for reinvesting the majority of 2020's windfall operating margins into these initiatives. We're working to generate gains in growth for periods which do include 2021, but range as well into the 2020s future. But I'm grateful that we have a CFO with a track record and the authority to newly solve each year the financial combination which has been the hallmark, I think, of our prudential family stewardship to date. Investing as much as we can to benefit the future while at the same time, by virtue of scale leverage and efficiencies for which we hold ourselves accountable, improving our operating margins steadily and incrementally.

Now, before turning over to David to quantify this, unusually for a CEO speaking to investors—in our case at BSY, that includes all of our colleagues—I would like to acknowledge their contributions throughout 2021. We all shared sacrifices in raises and incentives, which along with the pandemic itself lasted longer than we expected. I think we have largely managed to make that up already in and for 2021. But it is significantly due to the resilience and resourcefulness of our colleagues that by year-end 2020, we got back to pre-pandemic rates of not only global application usage but also overall new business growth generation. I consider this an excellent outcome and a springboard for 2021.

We can't know when—presumably during this year—the macro-demand environment will snap back. In our commercial models, we only get paid for the actual elapsed consumption of our software, not for anticipated growth. So, our financial outlook for top-line growth reflects a relatively wider range than we would expect for a typical year. I would emphasize our operating margin is not similarly exposed, because if pandemic recovery to physical infrastructure activities are delayed, so would be our costs of travel and physical events. But, most importantly, with and for recovery, there is every indication that infrastructure engineering will be fully prioritized, and that going digital is the key to the improved resilience and adaptation that the world now more fully values.

To quantify that, and the other details of financial operating results for 2020 and our financial outlook for 2021, over to David Hollister. Thank you.

David Hollister: Thanks, Greg, and good morning everyone. I'm first going to discuss our fourth quarter and full year 2020 results and then, I'll provide our financial outlook for our full year

2021. I'll also comment briefly on our liquidity and the significant capital structure transactions Greg mentioned. I'll also close with a few thoughts on our long-term financial targets, before getting to Q&A.

I'll begin with revenue performance. Our fourth quarter revenues grew 8.2% year over year to reach $220 million, bringing total revenues for the year to $801.5 million, growth of 8.8% for the year.

Breaking that down further, subscription revenues, which are 85% of our total revenues, grew 9.4% year over year for the fourth quarter and 11.7% for the full year, with strong organic growth across all regions, led by the Americas and APAC. Obviously, that growth is stronger for the year than for the fourth quarter, with the impact of E365 consumption-based, short-term subscriptions still tempering overall growth and some momentum there. And again, this is disproportionately manifesting in users with industrial and resources in market exposure.

Our perpetual license sales improved during Q4 to be flat to the same quarter last year and bringing total year-to-date license sales to $57.4 million, down $2.4 million or 3.9% for the year. Professional services, while only about 8% of our total revenues, is still our most volatile revenue source. Professional services grew 7.7% during the quarter but remain down 5.5% for the year. Professional services, in particular, benefited from the 2020 Cohesive Solutions acquisition, the PCSG acquisition, and the SRO Solutions acquisition. Each of these are professional consulting businesses added to our digital integrator portfolio. Without the benefit of the acquisitions, our professional services decline by $20.8 million in 2020, relative to 2019.

The organic decline is twofold. Firstly, other than our digital integrator businesses, we continue with a concerted effort to migrate episodic professional services from days and rates and fixed fee arrangements and into recurring subscriptions. This migration accounts for approximately half the 2020 organic decline. The remaining organic declines in professional services primarily relate to pandemic-induced cancellations, deferrals, and slowdowns, with a disproportionate concentration in our industrial resources and markets. As we've previously noted, these episodic professional services revenues are typically, for us, where will feel softness in the face of macro headwinds and cyclicality. To a lesser degree, we'll also see any macro-induced softness manifest in our perpetual license sales and certain of our shorter-term subscriptions, in particular those E365 daily, consumption-based subscriptions.

As Greg discussed, while we're resilient and growing, we're cautious about the lingering effects of the pandemic, in particular within the industrial resources sectors, which represents about a fourth of our revenues. Public works and utility sector, our largest end market, representing about two thirds of our revenues, while is not unaffected, it still remains relatively robust for us.

Our last 12-month recurring revenues—which include, primarily, our subscription revenues, but also include certain services revenues delivered under contractually recurring success plans—increased by 10.4%. For 2020, this outpaced our net recurring revenue retention rate of 108%

due primarily to new account growth, both organic and acquired. Our deep and long relationships with our accounts again are proven with our 98% account retention rate, and growing and expanding those accounts continues to be our most significant source of growth in an area where we continue to invest with our user success adoption initiatives, as Greg articulated.

A significant KPI for us is our annual recurring revenue, or ARR. For 2020, our ARR grew by 8% on a constant currency basis, and ended the year at $752.7 million at then spot rates.

Our gap operating income was $54.3 million for the fourth quarter of 2020, compared to $42.7 million for the same period last year. For the year 2020, our gap operating income was $150.2 million, compared to $141.9 million the preceding year. In order to understand our gap operating results, you have to take the time to understand all the significant and unusual activity we undertook in 2020. I'll highlight the most significant of those here.

Firstly, our gap results include a charge of $26.1 million for cost directly associated with our IPO in September. Uniquely, our IPO did not include the issuance of any new shares for Bentley Systems. Normally, IPO costs are netted against the proceeds from primary share issuances and don't flow through the issuer's operating results. With no primary shares being issued in our IPO, those same costs were charged to operating expense. Also, during the third quarter of 2020 but in advance of our IPO, we issued a one-time stock bonus award essentially to our Bentley Systems colleagues. These awards vested upon completion of the IPO and resulted in a $15.1 million charge to operating expense. And, as mentioned last quarter, during the third quarter of 2020, we initiated and approved a restructuring plan. As a result, we accrued and recorded a $10 million charge to operating expenses in the third quarter of 2020. The charge was almost exclusively related to severance benefits. This was not a cost savings-motivated plan; rather, we aligned resources to support our growth initiatives and reinvested accordingly, as you've heard Greg discuss.

Also during 2020, we incurred unrealized foreign exchange gains from inner-company financing transactions of $22.3 million. These transactions are being translated into their functional currencies at the rates in effect on each balance sheet date, and they fully eliminated our consolidation. As do our peers, we exclude foreign exchange gains and losses from our adjusted metrics, as they're not reflective of our ongoing business and results of operations.

So, for better analysis and understanding of underlying performance, we remove the skewing and non-recurring nature of these transactions by guiding and reporting on adjusted EBITDA, which was $77.1 million for the fourth quarter 2020 and $266 million for all of 2020, an increase of 41% over 2019 and representing an EBITDA margin of 33.2%. Even with this adjusted EBITDA metric, there's still a lot going on inside of 2020 that needs to be understood. So next, I want to double click on that and share some further insights.

So, clearly, 2020 was anything but a normal year for us. In addition to everything both Greg and I have discussed so far, I believe there's more to understand about our operating expenses to

better understand our margin performance. This analysis is intended to show a normal margin profile for 2020 related back to 2019, which is the best and most recent proxy we have for a normal EBITDA margin year—and show a normalized margin performance for 2019 and 2020, which then informs what we expect for 2021.

So, in this analysis, I normalize for two circumstances.

The first adjustment I make here is to reflect the fact that pre-IPO, certain of our top executives were paid only in cash. Post-IPO, those same top executives will be paid in a combination of cash and stock. Specifically, approximately $30 million per year previously paid in cash will now be paid in stock. This recharacterization of stock becomes an ad-back adjustment when arriving at adjusted EBITDA. Again, we're seeking no margin improvement credit for this recharacterization. It's done to better align us to comp. structures and margin profiles of our peers and competitors. So, had this recharacterization been in place for all of 2019—and also for the first three quarters of 2020 before the IPO—our EBITDA margins would have been higher by these amounts.

The next adjustment I make here is related to expenses not in our cost structure in 2020 that we expect will be in our cost structure in 2021. Significantly, this is related to some fairly substantial pandemic-related cost savings in 2020, which we expect are not sustainable, as we anticipate easing into a post-pandemic normal. These savings relate to curtailment in 2020 incentive compensation, travel expenses, and incremental costs associated with promotional activities and live events. To be clear, this is not all of our cost savings in 2020, many of which we've reinvested into our business to stimulate our growth strategies as we've discussed. Rather, this includes only those savings we expect not to be benefiting our cost structure in 2021. To a much lesser degree, we include in this $42 million normalizing adjustment some incremental public company costs now fully absorbed into our cost run rate and permanently so into the future. Our 2021 margin outlook includes such costs.

So, normalizing for all this trauma as best we can, I put this here in the context of our-long term history and our continued commitment into the future of targeting careful, methodical, and discipline margin expansion in the neighborhood of 100 basis points per year.

And here, showing our first tease into our 2021 outlook, which I'll now discuss.

As a reminder, our guidance policy is to provide our financial outlook annually for a full year and updated quarterly as and if our views for the year change, as we move through the year. Our outlook is obviously informed by what we know about our business and prospects, our reasonable expectations for progression in our growth strategies, our current sense for tone of business, and a cautious optimism towards lesser direct and indirect pandemic-induced macro headwinds, as we progress through 2021. And our outlook assumes stability in foreign currency exchange rates, and it does not contemplate any significant acquisitions not already concluded.

So, accordingly we're expecting revenues between $895 to $920 million representing growth over 2020 revenues of 11.7% to 14.8%. This expected growth does benefit from last year's acquisitions, as well as a favorable foreign exchange environment, notably a weaker U.S. dollar today than last year. Of course, the opposite is true for our costs and expenses, given our fairly extensive natural hedge. Thus, the favorable impact on margins is somewhat negated.

We're projecting constant currency ARR growth to be between 8% and 10% and we're expecting adjusted EBITDA to be between $285 and $295 million, approximately a 32% EBITDA margin. I also include here some additional expectations on interest in taxes, CAPEX dividends, and outstanding shares. I won't to speak to each of those now unless, there are questions; I'm just posting them here as a takeaway.

Greg previewed several significant transactions, which have impacted our capital structure, since we reported last quarter, just after our IPO. I'll run through some details on those and show the effect on our capital structure in just a moment. But first, a few comments about cash flow.

As you can see here, our gap operating cash flows are up 57% in Q4 and 51% for the full year relative to last year. We don't have multi-year contracts, so there's no upfront multi-year windfall such as that. It's just really solid operational efficiency and working capital focus. Even if I normalized for the $42 million of windfall savings and net of our $10 million restructuring charge, our operating cash flow is still up over 30% in 2020, relative to the prior year.

As Greg mentioned, we hit the market very quickly after our IPO, with the first follow on in November. This was mostly primary shares for the company and raised $294.4 million net of fees and expenses. There was also a modest amount of secondary participation in the follow up. Then, in January 2021, we undertook a pretty substantial overhaul of our debt structure. First, we secured and upsized, new $850-million-dollar revolving credit facility at very attractive terms. At the same time, we placed $690 million of convertible notes. The notes mature in 2026, if not converted earlier than the conversion strike after giving effect to the capped call, which we purchased with the proceeds, is $73 per share.

Reflecting all of these capital transactions and applying the pro forma effective the January 2021 financing transactions to our December 31, 2020 capital structure, we would have had $519 million in cash, $690 million in debt, for a net debt position of $171 million. This reflects total debt net leverage of point six times and, of course, no senior secure leveraged, given the full $850 million senior secure revolving credit facility remains fully available.

And lastly, before Q&A, I'll offer some transparency into our thinking and expectations about longer-term financial model targets.

We expect our historical revenue growth to inflict towards 10%, representing modest increases for ongoing growth initiatives and a modest increase in pace and scale of our normal historical tuck in buy-versus-build acquisition cadence. We expect a continuation on average of 100 basis

points per year of EBITDA margin expansion. And there's no reason why this won't continue well into the 40 percents. Some years may reflect more or less than this target, based on our then informed views of where to invest and generate the best returns.

I continue to highlight that outside of our pure software business, we're still investing in digital integrators and incubating an ecosystem to stimulate adoption of infrastructure digital twins, and, ultimately, to create incremental pull through of our software solutions. By design, the digital integrators are service-oriented and lower margin businesses. Similarly, investments we may make an early-stage businesses or initiatives also are obviously pre-profitability and may be margin diluted. To date, we've absorbed a diluted effect of these investments into our margin expansion history, but continue to an incremental investment here may apply some pressure on margin expansion, from time to time, but, obviously, to the benefit of long-term incremental growth not otherwise contemplated.

We'll continue to anticipate a steady-state global effective tax rate of approximately 20%, that such may be impacted by any future tax law changes in the U.S. or elsewhere. Of course, we've historically been, and expect to be, nimble and efficient in our tax planning and strategies to help mitigate any such effects.

We expect to remain cash flow efficient and a low CAPEX business. We will remain committed to a modest quarterly dividend, which may increase over time, eventually expected to settle into the one half to 1% dividend yield range. We expect to attenuate dilution from stock-based compensation with periodic stock repurchases. And as for debt levels, we acknowledge the current low levels of leverage, which are well under one X at year-end and today, and the significant incremental debt capacity afforded by our recent capital structure transactions.

We do expect to apply for continued investment in our business organically and via acquisition. Optimally, we're very efficient and comfortable operating in a two X to three X, and sometimes even four X, net leverage position. As investment opportunities come and go, we may be less leveraged as we are today or more leveraged to accommodate unique opportunities.

So, with that, I believe we're now at the end of our prepared remarks, so I'll turn it over to the operator to facilitate some Q&A. Thanks. Operator?

Carey M: Thanks, David and Greg. We'll take the first question from KeyBanc, Jason Celino.

Jason Celino: Hello can you hear me?

David H: Jason.

Jason C: Great. So, I guess, first question, the uptick on the growth guidance to 10%, what gives you the confidence to raise the outlook this soon after maybe setting the initial targets?

Greg B: David, it's Greg. If you can hear me, I'm working on starting my camera but go ahead, you want to take the first pass at that.

David H: Sure, sure. Well, so the long-term guidance inflecting upwards from our historical 8% average growth, which you could see is the compound annual growth rate over the last five years, 10 years, 15 years, however you wanted to measure it, it's pretty steady at 8%. The confidence to raise it to 10% on a long term—just giving long-term guidance to our long-term expectations, comes from, again, an increased pace from acquisitions in terms of number of them, which I can see in our pipeline, as well as the scale of them, which we're prepared to begin investing in larger-scale acquisitions relative to our historical tuck-ins. So that's part of it.

The other part of it is we're just going to get some momentum from these very specific growth initiatives that Greg articulated during his session. But, the guidance the 2021 is more specific, and that's informed by where we left 2020 in our ARR. And, again, we're getting some tailwinds just in currency in 2021 and there's some higher-than-normal tailwinds also in 2021 from the acquisitions that we completed.

Jason C: OK. And, then, maybe for my second question, and then I'll pass it on. I know you've talked at length that infrastructure across the country is aging and needs replacing, and it became pretty real last month with all the power outages and water issues across the country. How is Bentley positioned to help here? And, then, maybe, what does this do for near-term demand trends?

Greg B: So, it's Greg, I'll jump in. It highlights the contributions that digital twins could make. Digital twins are continuously surveyed, they're evergreen, they're always up to date. If they—to the extent they can represent the existing conditions and the record of changes in for instance, our grid, our water resources, what's vulnerable to flooding and weather and so forth, the decisions one can make about maintenance, and remediation and adaptation are better decisions.

I take the case in point of PG&E in California. In our annual *Year in Infrastructure* that they've been submitters of many nominations that show their reaction to problems in their grid with applying innovations—we could say digital twin innovations—to continuously survey, drone survey, and so forth, what they're doing and make better decisions.

As to immediate demand, we're prepared to offer quality assurance services for—in our OpenUtilities and asset and network performance, but in general, increased awareness precedes increased demand. But, everyone can be better off, and digital twins are the way to think about how to be better prepared and make better decisions to avoid these problems.

Jason C: Great. Thank you.

Carey M: We'll next take RBC, Matt Hedberg.

Matt Hedberg: Oh, hey. Thanks, guys for the questions and appreciate all the color here. Maybe following up on that question. David, you said that digital twins exited the year at an eight-figure run rate, and I believe it had been doubling previously. Can you kind of give us a sense for what your expectations are for digital twin embedded in that 8% to 10% ARR guide this year?

Greg B: So, can I take that, Matt? We've been discussing whether to have an explicit new business growth consistent with the sort of doubling we've been talking about. And, I'm not sure we're going to be as explicit as that because our objective in 2021, we say iTwin powered, we want more and more of our offerings to be based on underlying iTwin technology like SYNCHRO and the asset and network performance offerings and so forth. In which case, it may be with the bundling a little harder to break it out, but, in spirit, we're confident about that. And yes, a portion both of our financial outlook revenue growth here and its increase has to do with the take up of iTwin Services, not only as a platform in isolation though, but underlying the advances in all of our products at this point.

Matt H: That's great. Maybe just one more quick one for David. Your long-term growth outlook always assumes some level of M&A, I believe 1 to 2 points historically. I just want to be clear, though. In your 8% to 10% ARR guide this year, that is an organic guide. In other words, anything M&A related could effectively raise that level?

David H: So again, the guide for 2021 is actually higher than 10%, and there's an organic assumption in there of 7%, there's an acquisition assumption just from acquisitions we did last year of about 3%, and there's a currency assumption between 2% and 3%, just because the dollar is weaker now than it was last year. So, there's 7% organic in the 2021 guide.

Matt H: Got it. Thank you. Well done.

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

Joe Vruwink: Hey, everyone. Thanks for the presentation today. Greg, if I followed the Bentley annual report accurately going back to the 2000s, I think the mid- to late-2000s was the last time there was reliably higher infrastructure spending in the U.S. And, that also was a time Bentley all in not organic, but all in, was growing at I think a low- to mid-teens revenue pace. And, so the question is, as you look ahead, what is the likelihood we're about to return to that environment? And, how is it going to be different this time for Bentley or is that the right rate of growth to contemplate?

Greg B: Well, all of us in the U.S., of course, are paying attention. It doesn't seem finally as if there's a question whether there will be a focus on federal spending on infrastructure, that seems to be for sure. But what will make it up, certainly, it's going to be more fundamental this time.

What's especially interesting about it is the emphasis on, as I say, energy transitions, on spending differently, on things that are going to keep infrastructure engineers occupied and accreting their

mix of specialized software for, as I mentioned, the example of wind power and metros, and so forth. That is different than has ever been the case.

However, it more so resembles the rest of the world, if you would like, and especially Asia-Pacific, where this is already underway, and our growth rates are already higher. So, we're not in the business of political soothsaying, but the fact that you have this concerted resolve to make our infrastructure greener and smarter, it has made infrastructure engineering organizations more confident and resolute about going digital. Now, that doesn't benefit us until they actually increase the consumption of our products, but we're well positioned to take advantage of their enthusiasm and we share it.

Joe V: And then, maybe just a follow up, the idea of going digital, there's clearly going to be—however the stimulus unfolds—there's going to be some new considerations. You're already seeing civil project owners, whether they're public or private, stipulate digital handover. You're also—I thought the mix accretion variable you outlined, that's going to be a bigger factor to your revenue growth going forward.

And so, when you just think about the environment unfolding, again, kind of working with history in this type of environment it has meant this for Bentley Systems, is there going to be a natural organic growth uplift? I know we're talking about your long-term targets being a bit higher than the 8% compound rate you've done historically, but any sense of how much better it potentially could be just because of the digital aspect?

Greg B: Well, I am informed by our TAM analysis, which showed how much is spent per engineer on product and part engineering software already. And the engineers cost the same. So, I believe there is that headroom to spend more. I believe the path to it involves more specialized software for specialized functions, the infrastructure engineering is behind on that. I think it's been stimulated by the environment in 2020 and, as I say, the organizations are not R&D organizations. That's the difference from those that do product and parts, in effect, we are the R&D organization.

But increasing the emphasis on digital twin and raising the aspirations and for instance, to improve resilience against weather and climate and so forth—that's all part of raising the ambitions that I think will slowly gravitate to increase what's spent here. Certainly, it's well worthwhile for all of us, but that's why we have to discuss the long term because of the conservative history of civil and structural engineers and digital twins.

But, we're excited to see, for instance, Autodesk validate the concept of digital twins. They announced their first offering. We don't see it yet in this respect, but their Autodesk University. But, we have all very much to gain by sights being set higher to what would not create deliverables for one purpose, but rather this evergreen digital twin that can keep infrastructure more fit for purpose, better adapting, and safer and longer lasting.

Joe V: Thank you very much.

Carey M: We'll next go to Bank of America, Brad Sills.

Greg B: Might be on mute?

Carey M: Are you there? And, we'll come back to Brad. We'll go to Goldman Sachs, Brian Essex.

Brian Essex: Hi, good morning. And thank you for taking the question. Greg, you noted in one of the prior responses, you mentioned APAC, and I'm just wondering maybe if you could give a little bit of color in terms of what you're seeing in that region with regard to project curation and pipeline development and how that might be changing from what we saw over the past few years?

Greg B: In which region, Brian?

Brian E: On APAC?

Greg B: Yes, so APAC isn't all strong. India was, in particular, hit hard with not being ready, I guess, to virtualize. But, as I say, China, at the other extreme, literally led the way again by virtue of a strong fourth quarter, here. And, since it went back to physical business sooner, it gives us some encouragement as to what can happen when the rest of us go back to physical business.

But, there's sort of, the story for 2020 is kind of uninteresting region to region, because everyone was kind of in the middle, except the examples I mentioned. But, where there are the strongest commitments to leaping ahead to digital twins it turns out to be Asia-Pacific. If I can, I'd like to do a commercial for our *Infrastructure Yearbook*. I've had some examples here, but any of you will find it worthwhile. You can index by country, index by project category, and so forth; search by digital twins, by sustainability and so forth. Often, the exemplary projects are in Asia-Pacific. And, we will be here in the U.S. advocating that when we focus on infrastructure as a country now, we focus on going digital in infrastructure to achieve the same breakthroughs they're doing there.

Brian E: That's helpful. And maybe to follow up with David, any progress you can illustrate with regard to migrating ELS, E365, and what your expectations would be for contribution, perhaps for enabling greater application usage on a platform with that migration in 2021?

David H: Yeah, we are not even halfway through the potential large ELS book of business that we consider potential candidates for migration from ELS to E365. So, we're less than halfway through, we won't get—we won't do the rest of it in 2021, but we will continue to migrate. As

Greg mentioned, when we do that, we're being a little more cautious now and we're putting some guardrails around unanticipated outcomes for both us and the user.

So, there's still some incentive within the guardrails to inflect usage upwards for us, and we're going to be working hard to do that, and the success teams that we put into play every time we secure one of these E365 opportunities is all that much more opportunity to grow and inflect upwards. We just have to overcome the drag, if you will, that we've been pretty transparent about on the E365 intersection with the industrial resources sectors, which is some pretty big ones. We have to weather that drag for them and overcome it with the others and we're confident in our guidance that we've given.

Brian E: OK. Helpful color. Thank you very much.

Greg B: I might just add, what's heartening about the E365 migration is that the accounts are enthusiastic about the success plans. The fact that we embed our subject matter experts to help them with digital workflows, that's more so than ever what they want out of it at this point in time. They have made it their own priority, and this has turned out to be an effective way for us to work together.

Brian E: Got it. Very helpful. Thank you.

Carey M: Brad, I think you've been able to figure out your video.

Brad Sills: Great, can you guys hear me OK?

Greg B: Yes.

David H: Hey, Brad.

Brad Sills: OK. Perfect. Excellent. Sorry about that. Well, thanks so much, guys. I wanted to ask about China. You called that out as an area of strength for this quarter and for the year. Is there any color you can provide on kind of where you're seeing strength there? Are there any particular segments of the business that you're seeing some strength, whether it's commercial, industrial, or public? And, is this the result of some of the investments you've been making there? Just if you could just comment on the environment and the results you're seeing in China, that'd be great. Thank you so much.

Greg B: Well, goods in China are strong across the board. Of course, you might recall I said after Q3, hadn't turned out to be the case as it usually is every year that China roars on and becomes our second biggest source of new business growth. It concluded the year on exactly that footing and tone. And it's kind of across the board. We're strong in China in electrical grid. We're strong in increasingly in water and wastewater large scale projects. But again, you find the

Chinese projects very representative here—wind power, especially, trash to waste, huge important groundbreaking projects. And, the business in China is chunky and constant.

A difference is we work more so with a channel in China than we had elsewhere in the world. But there's a lot of momentum. And, China is a place where digital twins are literally the ambition. And, every project starts with the reality modeling survey of existing condition, the digital context, and is maintained evergreen throughout the project. It's just exciting to be meeting the needs in China and to see that we're just scratching the surface.

Brad S: That's great. Thanks, Greg. And then one more, if I may, for you David, please. Embedded in your guidance for the year, it sounds like it's a 7% organic growth assumption. Your net revenue retention is still tracking to that 108, very, very solid healthy levels there at 108. So, it would seem that there's a pretty conservative assumption for new business. I'm sure that your guidance reflects conservatism across new and expansion activity. But, where could you see upside potential if you look at those two areas of growth? Could it be more on the upsell? Perhaps there's product cycle that we could see that could generate some upside there more so? Or is there region in particular, maybe it's China, where perhaps new business could surprise to the upside? Thank you.

David H: I'll give my view, but, Greg, feel free to add to what you see. My view of the upside is more the macro. How quickly does the world open up? And, projects and users are returning to normal. I see more of the upside on just usage of our applications than specific new opportunities. Those are going to be there, obviously, as they historically have been.
But the upside to my guidance of our own, I think, is more in the macro conditions that we don't have a lot of control over. But we'll certainly be there to take advantage of it. It happens faster than we anticipate.

Greg B: And, I don't think it breaks down so much by region in our view of it now. All of our regional territory executives are cautiously optimistic about 2021. I would call out our new focus on SMB. We are already seeing faster growth there with the 100 people in inside sales focused on it. Sort of the picture in my mind is that with this magnet of increased spending on infrastructure, roadways, railways, metros, smart adaptation resilience, fund resistance, and so forth, that more firms change their growth plans in favor of that. And that tends to favor their increasing of their use and interest in our portfolio versus Autodesk and other providers. Hopefully, and likely, that compounds itself over the course of this year, because I don't think people are acting on that yet. But we have the chance for that certainly this year.

Brad S: Understood.

David H: I would also add that you might ask: does the potential for an infrastructure spending bill add to our upside? And, obviously, that would be a good thing for us. But, in my experience, that's more of an indirect longer-term effect. So, I don't know that you would see any dramatic uptick to our 2021 sales results.

Brad S: Understood. Thanks, Greg. Thanks, David.

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

Gal Munda: Yeah, hi. I hope you can see me OK.

Greg B: Yes.

Gal M: Awesome. Well, thank you for taking my questions. The first one, Greg, I found it really helpful for you to break down the performance really between the incumbent products and incremental products and then the new products how they stack up. Considering the fact that you ended the year pretty much close to the budget on the quotas, how did you see performance against the quota in each of those segments, if that makes sense, in terms of the expansions in the new accounts? I would have imagined that it was a hard year to kind of grab new accounts, and that's maybe something that is likely to perform better in 2021.

Greg B: So, new accounts for us tend to occur with AssetWise and ProjectWise. AssetWise in owner-operators with the potential for digital twins, it's rather unpenetrated. And, our proportion of all owner-operators, the top 500 that we track in our own top owners, they're more to go than where we are now. But those are procurements. Those are enterprise procurements with RFPs and typically outside sales. And, those cycles in most of the world did slowdown in 2020. When I ask our sales folks are they able to be as effective in those opportunities, they say they can be even with lockdown conditions. But I think there are fewer such opportunities. On the project delivery side, there are not new name opportunities because we're in all of those accounts. But there are opportunities to expand ProjectWise and for ProjectWise to become the standard throughout an organization rather than only for portions of it. And, I think that does continue to be a good opportunity. But that wouldn't show up as a new-name opportunity. Hopefully, 2021 is a better new-name year. I think everyone in enterprise software would expect that.

David H: Hey Gal, I would also add that one of our key growth initiatives is the digital approach to small-, medium-sized businesses. This tends to be where we start things here in the U.S. with that. That's been our focus in North America. So, I would expect of that extraction. You'll see the benefit in the U.S. earlier than elsewhere. So, we're hopeful to see some upside there.

Gal M: That's very helpful. Thank you. And, then just as a follow up, maybe a little bit of an expanding on that. What you said in your prepared remarks I found very interesting about the potential to really penetrate your own CAD base but, at the same time, competitors like Autodesk so effectively to become the common data environment around those, the center of the workflow management. What is the penetration within, maybe, the current CAD? And then, more specifically, is there any penetration within the competitive CAD solutions today from iTwin? Is it all pretty much a greenfield for you?

Greg B: Well, I'll start with ProjectWise. So, it's the case that it's still a minority of our own application users whose organizations use ProjectWise for their work sharing. And, so there's upside there. But, the use of ProjectWise includes Autodesk applications and we've done pretty well there. The opportunity with adding iTwins is to federate and aggregate across projects, across domains, across separate software tools, so that if the organization cares about what the quality of the projects they deliver—how much concrete do they use per whatever mile or bridge abutment or whatever—with iTwins, you can measure that, you can introduce analytics. Everything can be rectified, change managed, aligned. What previously were separate opaque objects created by the design tools can now be aggregated and open to analytics. So, the opportunity to extend to the enterprise for sake of this machine learning and analytics is one that will be important for ProjectWise going forward as something that can be added, even where there is a mix of different design tools.

Gal M: Thank you so much. Congrats again.

Carey M: For our final question, we'll go to Mizuho Matt Broome.

Matt Broome: Thanks very much. So, I guess mostly—definitely appreciate the additional color on the 2021 outlook—but, just for comparison purposes, how much of 2020 revenue growth was organic?

David H: About half.

Matt B: OK. Thanks. And then on 2021 guidance, so, I know you don't provide quarterly guidance but, how should we be thinking about the sort of linearity of that sort of acceleration that's implied there? Is it likely to be I guess more back-end loaded as the comps get easier and your growth initiatives gain traction? Or, given that usage has already picked up, is the growth likely to be more sort of consistent through the year?

Greg B: I think it's mostly seasonality, but I'll let David break that out if he can.

David H: Yeah. So, it's multiple things to bring together. There is some seasonality, and we're going to be, as we have historically been leading up in 2020, stronger in the last half than the first half. So that's part of the—

Greg B: Which is because of renewal cycles. It's just that's when the annual contracts turn over.

David H: Yeah. So, there's also the acquisition effect in the outlook. Which, again, the acquisition tailwinds are going to benefit the first half more than the last half. Of course, to the extent that we have new acquisitions in 2021, those are going to be benefiting the last half more than the first half. So, then there's the pandemic effect that's also informing the outlook which is

indeed—look, we are where we are in the first half, and we do expect a pace of recovery as we move through the year in the last half as a result of that strong opening first half.

Matt B: Right. Yeah, that makes sense. All right, that was very helpful. Thanks very much.

Carey M: Well, thank you, everybody. That concludes our call for today. Thank you.

David H: Cheers.