Transcript Demystifying AI: CGI Inc. presents strategic AI solutions for a smarter future

Divya Goyal
Good afternoon, everyone. Thanks a lot for joining us.

Thanks a lot to the CGI team here for joining us and all the clients who could join us in the room and on the webcast today.

Today we are here to discuss CGI, discussing some strategic AI solutions for a smarter future, Machine Vision and beyond.

I would like to imagine all of us, all, everyone in the room and online know my name. But here my name is Divya Goyal. I cover North American IT services for the bank and lucky to be one of the covering analysts for CGI.

With that, I'd like to bring Dave Henderson on the stage to make the formal introductions to the team. Thanks, Dave.

Dave Henderson
All right, So good afternoon, everyone. Glad to be here. It's always a great event when Divya hosts us and allows us to get out and tell the CGI story.

So we'll, we'll do introductions as we go. We've got a team online here that that will be doing some demos for you, because what we've seen is people are tired of talking about AI. We can all talk about it, right? Everybody, that's all you hear. Let's show you some things that we're doing with AI that are delivering value not only to our clients, which you'll see with our Machine Vision demo, but also with what we're doing internally. And we have a solution called Big Gen. that we've implemented internally that is allowing us to really take advantage of the vast amounts of data that we have on our clients and on the proposals that we've done and all of the work. And I'll let that team talk about that, but it's really powerful stuff.

So, you know, I think you all know CGI that we're a company that's really known for being able to deliver at scale. We deliver large, very complex solutions for clients globally, everything from, you know, very large to outsourcing managed services and engagements. We just opened up just talking with Divya about this. We just opened the GCC for one of our largest client banking clients in the world in PNC and we're comfortable doing big things, big complex things. AI as now as we bring AI into focus for those solutions is something that we take, you know, very seriously. But we started off with a, a very principles-based approach to how, how do we want to leverage AI? What are our principles around building what we call the responsible use framework?

And so that was our starting point and that permeates everything that we do with AI in the company because it gives us the guardrails, it gives us a foundation for thinking about AI and how do we think about the veracity of the solutions? How do we think about the ability to scale?
How do we think about delivering solutions where it's not optional that the answer is right, right. When you're talking about healthcare or utilities or the industries that we work in.

So we're very focused on, let's use these very, very powerful tools that advance what we've already been doing with AI over the last, you know, 30 years. But let's use them in a way that is practical, is going to deliver ROI and also with a deep understanding of our client's business. And that's really where it all starts because if we don't, we can't throw tools at things. A lot of people are throwing tools at problems, right?

And you know, our philosophy has always been, you know, technology is great, but you have to be able to adapt your organization and the way you work in order to take advantage of that technology. And AI is that on steroids.

AI is changing the way we work. And you have to think about that. If you really want to deploy globally or deploy in an enterprise, you have to think about how does this impact the way we work? How are we going to incorporate this into the daily work of the different roles and responsibilities within a company? And that's a big job. And so, we position ourselves to not only help our clients with that because we're doing it for ourselves. And so again, it's one of the things that we'll talk a little bit about today.

One of the other things that I'll say is a differentiator for CGI in delivering AI solutions is that we have over 200 IP based business solutions. So, we have products out there, many of you probably running those solutions within your institutions. And so, it gives us the opportunity to implement AI into a business process that we understand, that we're managing, that we own the workflow for. And it allows us to get that experience in delivering, again, you know, industrial strength AI solutions into those work streams. And that's, I think, you know, feeding our experience and it's what clients come to us for when they're asking CGI, Hey, what are you saying? How does this work? How do you get real value out of AI?

Because that's still a big question out there. There's still a lot of questions about what kind of value can we really drive with this really, you know, what can be a very, very substantial investment. And I think, you know, we obviously all know that there's a lot of wow factor to AI and Gen AI, and the things that you can do and it's moving very, very quickly. So, we have to, you know, we're all on a journey here. We're going to stay abreast of that as the trusted advisors who are out there implementing and learning across the globe so that we can bring that experience back to our client's doorstep.

So, and, the final thing I'll say is that both solutions that you're going to see here today and that will allow us to have this conversation came through an innovation program that we have at CGI where we look for and, and you know, create a platform for people to submit ideas that they think are great ideas to go to market with. They need some funding help and are very interested in bringing that idea forward to a little bit of a Shark Tank like platform that we have.

So, both Machine Vision and BidGen came through that process.
We bring those programs in, we work with them, we invest in them and then we help to commercialize those solutions or deploy them enterprise wide in the case of a BidGen.

So great examples of again of our innovation approach as well and how we're always innovating, but with an eye towards, you know, again, I think collaborating with our clients and really being able to pull that innovation from the shop floor, if you will.

So with that, Machine Vision is next.

So let's see, we've got Andy Donaher, Andy King, Andrew Keen and Jonathan Cole and Forbes McKay. And Steve, I'm not going to read your guys names. You guys can introduce yourselves as we go here, but let's do the demo.

Forbes McKay

Great. Thanks, Dave.

So I'll start and then I'll hand over to Andrew and he's going to hand over to Jonathan.

So yeah, I'm Forbes McKay. I'm dialing in from Scotland today. So nice to see you all.

I am VP for Innovation, emerging Technologies and IP in our UK and Australia business. And I'm responsible for a number of programs including our internal AI enablement where we've rolled out enterprise ChatGPT and get a copilot to, you know, improve the productivity of our developers. As well as development of our AI OPS platform that's embedding generative AI and other AI features into our managed services for outsourcing business in UK and Australia. And that's already helping to reduce our cost to serve and improve our, you know, competitiveness in the market and improve their customer service levels.

What we're also doing though has been investing for a few years now in some new products that we want to take to market just so the three main ones at the moment. And there's one around that helps public safety, helps with police operational planning and it's called Safer Streets. Andrew's been working away really hard on that for the last few months.

Another one is a thing called Universal Flight Data Recorder that we've been developing in partnership with the European Space Agency and that is a cloud satellite-based flight data recorder to augment the black box you found in every airliner in, you know, in the world. And with that, if it's successful, you know, we're hoping, you know, the world will never lose another plane, and we'll always know where the planes are and what's happened in the event of an emergency. So that's really exciting. That's interesting from a technical point of view because it's got some blockchain technology embedded in it. There's a hyper Ledger and database in the back end that keeps track of all the things about the plane. And it's probably one of the first applications of blockchain I've ever heard of that doesn't involve cryptocurrency. So, which makes it doubly exciting for me.

But today though, we're going to talk about Machine Vision. And Steve said this came about through an innovation programme when one of our technical gurus over in Brisbane actually got in touch to say he's invented this clever little machine vision model. And he was very excited because he managed to get it to identify birds, you know, airports and, you know, there's a big risk at airports, the birds get

in planes, et cetera, causing accidents. And he was hoping to get Brisbane Airport to adopt it and which we were quite excited about.

And unfortunately, this is a March 2020. And so two weeks later, Brisbane Airport shut down and was not going to be opening any flights in the near future. So, what a real decision to make of whether we should keep on with this product right or now, or just stop and pause and see what happened. We kept on with it and we've been funding development of the product ever since.

And what we found is across all the demand we've seen in the market is there are lots of areas that IT and automation and AI hasn't really reached, even though you might imagine it has. The things like detecting birds is an old problem, but there isn't really a whole lot of IT that helps solve that problem. And in areas like critical national infrastructure, there's some very expensive assets that are also not as well monitored as the owners and operators might wish. And so, we've had quite a lot of interest from large and small organizations across the world in this Machine Vision technology that Andrew and Jonathan are going to show you now.

So, I'm going to hand it over to Andrew now to tell you a wee bit more about how we built all this up in our vision for the product suite and then Jonathan will do the wee demo.

Andrew Keen

Thank you very much, Forbes and thank you everyone, and delighted to be here today.

I'm Andrew Keen, I work for Forbes. So, my responsibility is bringing new nascent technology to market, IP as we call it, and that includes Machine Vision. So, we take very early stage technology as it's being developed by the individual. And as Dave says, we take that through an investment program and then the challenge is OK, now we have to take it to market.

So, I'm just trying to talk about on the next slide. Another point that Dave mentioned is about how do you operationalize AAI, how do you operationalize these new technologies.

Although this is quite a complicated slide, what I wanted to get across today is that for us to make AI operational, we have a number of things that we need to pull together. And that's to say that no solution will comprise potentially of one piece of AI itself; it needs to be surrounded by a number of other technologies, some new, some traditional, some integrated with this custom client systems.

All of that needs to be brought together. And what we're seeing, and you'll see today with the Machine Vision and the client example we're providing is that the solution is actually made up of many compart components. And so, the approach we're taking as part of this bringing new technology to market break making AI operational is a building block strategy.

So how do we take all these different components that have been brought together such as vision, such as 3D digital twins, such as sensors that have been used to monitor the example to [illegible] bridges and so on. How do we bring all that together in such a way that it's easy to consume, it's easy to operationalize and we can deliver measurable value that the AI elements can deliver.

And we're going to see a great example of that today.

So, what we wanted to share was one such solution that we've been working on for last year or so with the national infrastructure. This is the organization responsible for our railways across the whole of the UK and combination of their vision as to how, excuse the pun, the vision of how they wanted to transform their business by integrating the leading-edge technologies that was part of their strategic plan. And how that's translated into us working with them, bringing together all these building blocks, all these capabilities to deliver a solution which we'll see today.

Jonathan, over to you.

Jonathan Colville
Thank you, Andrew.

Yes, Jonathan Colville, Solutions Consultant in the emerging technology practice in London. I help bring new nascent technology to market and I'll give you an introduction and demonstration to Machine Vision, which is one of those building blocks that Andrew mentioned.

I guess the first thing we start with is what is Machine Vision?

Machine Vision is CGI's visual generative AI platform, so it's based critically on large language model technology. And so, at a very high level, you can think of it like a video version of Chat GPT or a large vision model where you can interact with this model in real time through a prompting interface. But instead of that core model being built on the relationships between millions of words, this model has been trained on millions of images from numerous large open-source data sets.

Now, computer vision solutions aren't new. They've been around for some time and no doubt a lot of you in this room will be familiar with various types of these solutions.

But there are a few distinctions that make large language model technology in particular unique when it becomes to computer vision, which differentiates us to traditional AI models.

This mark as this technology is only coming to market in the last few years. And unlike traditional computer vision models, which are more constrained and specialized, our model takes advantages of the benefits of generative AI.

And the key result of this is that our computer vision model not only identifies objects like traditional AI, but it fundamentally understands them. It understands how people and objects interact with each other and their surrounding environment. So, it goes way beyond that traditional pixel pattern recognition to true visual contextual understanding.

And just to touch on some of these various use cases where computer vision is used, and these are all use cases that machine vision has been tested against and we see interest in the market for.

It's worth noting that all of these use cases are supported by the same model. So, it's not individually trained model for each specific use case, but one model that's segmented for all these different tasks.

So firstly, you know people dynamics, you know, monitoring how crowds are behaving, creating heat maps of their movement, counting groups of people or tracking specific individuals amongst the group. That's why we're engaged with clients for people monitoring from, you know, trespass to monitoring individuals like casinos who are ensuring they're gambling within responsible time limits. So, the variety of people tracking use cases as well as interest in law enforcement in both the US and the UK and then moving on to the infrastructure monitoring.

So, from monitoring minute changes in the structural integrity of assets to larger scale operations. Machine Vision provides the visual context and analytics which resonates with our clients because it provides more information beyond just that sensor data that can be unreliable or provide insufficient context. And flooding, erosion monitoring, we'll touch a bit on more in a minute, as Andrew mentioned.

And traffic monitoring. So, this is a good example of deploying multiple use cases from a single video source and we'll get in how we do that. But for example, detecting and pending bridge strikes from vehicle impacts, but also extracting number of details from optical character recognition, for example, or monitoring statistics on the traffic loads or registering the vehicle types or the vehicle speeds, even detecting the infrastructure degradation on the road itself.

And these use cases are so transferable. So, a use case on vehicle detection in one industry that applies to law enforcement or rail or transportation and logistics.

Smart metering so this is where we can take a .1 of our cameras at meters in remote locations that needs manually recorded or, or these locations are air gaps. And then using optical character recognition, we can read these values and send that back to the cloud.

And then finally in, in construction, but also adjacent industry such as manufacturing and oil and gas, we have PPE detection and worker safety. So, monitoring workers and staff and making sure that they're wearing the correct PPE and the correct areas, but also on the flip side, alerting irrelevant people when unauthorized people are in the wrong areas.

As I've touched on a couple of these points, but I really want to define what separates Machine Vision from other solutions on the market.

And so, if we start right at the start with deploying AI models, so the model training itself, because it's a large language model, a lot of our training has already been done. So, when we come to test or to deploy a new use case, we don't need thousands of annotated images for every single specific task. We just need to fine tune that model using some sample image or footage. And one of the great things about LLMs is the more and more data you pump into them, the better and better they become.

And then when we come to deploy the model, once we fine tune it for a specific use case, we can take this large model and shrink it right down to the point that we can fit it on an edge device. So, all of the use case examples you'll see today and all of the AI processing is happening on the camera.

And at the bottom you can see this is our Machine Vision IP camera, which we manufacture that consists of a Raspberry Pi in jets and nano.

And when looking at other computer vision solutions on the market, many of these solutions reference edge processing, but they're usually referring to edge servers and that's where all the processing is taking place. But where we're actually processing is on the device itself and it really resonates with clients.

It means, you know, we don't need high bandwidth data to stream large amounts of video back to the cloud. We have full control over that data.

And ensuring that privacy and security is tight fundamentally as well, it makes the solution much more scalable because it's just as simple as adding more and more devices.

And then moving on to the situational understanding of the model itself. So, I've touched on this, but because it has that fundamental understanding of what it's looking at in a practical sense, it means that it's, it deals really well in reality with changing camera angles or objects obstructing the view or heavy weather conditions. That's where traditional AI starts to fall off.

And then finally we see that real time response. So, you know, with edge deployment, there's essentially no latency from the device and then we can send not only metadata for, you know, exceeding alerts or hazards or security breaches back to the cloud, but we can also in real time dynamically change the use case. So, you could be monitoring infrastructure and then you might want to change that to monitoring people and we can do that in real time.

And then of course, we have the LLM capability and interaction with the model, which you should be able to see on this slide.

So, with my Chat GPT analogy earlier, we're able to interact with these video streams.

So, in the purple boxes around, around the edge of the screen, you'll see a task that we've asked the model to do and how it responds.

So firstly, in the top right, we can ask the model to identify staff and visitors, but we can prompt the model just like you would with Chat GPT and say, you know, blue helmets are visitors, white helmets are staff. And the model then maps that understanding through natural language labels and then identifies each individual appropriately.

That's another good example where generative AI is superior to traditional AI where you can see on the visitor helmet, there's white reflections on the blue hat on her white helmet, she has ear defenders covering the helmet. The traditional models then drop in their accuracy because it doesn't know what it's looking at, but because there's that understanding of the model, it deals with this really well.

We also have some segmentation of tracking objects.

We'll go into a bit more detail on this example with tracking the water level and a later slide. Track the woman in front, so the model understands who you're referencing in this feed, picks her out amongst the crowd despite being hidden behind people and segments her in tracks throughout the feed.

So, a few more examples on the top left, similar to the example before where we're tracking an individual. This time it's specified by his color of his shirt, but you can actually see a skeletal wireframe

over his body. And so, this is tracking his posture or his gait and how he moves and walks. And Machine Vision is actually creating a unique ID based on this. So, he leaves the room and reenters. It's tracking him as the same individual and this is quite a powerful technology. When we're not actually taking any sensitive information about race or gender, but just on the way he walks, we can create that unique ID.

We also have the capability to integrate with other types of sensors such as thermal or infrared.

So, this example is looking at pollution of a refinery. And we've asked the model to monitor the gas burn and provide statistics on how much pollution is being produced baselined against environmental regulations.

I've got some more examples of sort of PPE detection and, and tracking of vehicles, specifying with binding boxes and how we want to track them.

And so, we, we've already mentioned that, you know, a lot of this model training has already been done for, for general object detection. So, this is an example of us purely asking Machine Vision, what can you see?

So straight out-of-the-box with no tuning.

And this is some video footage on the front of a train, and we've asked it, what can you see? And it's identifying bridges, platforms, signals, trains and other types of assets.

And the, the neat thing here is that because we have a 4G hop on the device, it has built in GPS functionality. So, we can actually geolocate these assets using this method and build up a map of, of, of what is located where. I think it's just, again, it shows the versatility of this solution.

You see quite a significant demand and interest in the defence space and beyond with use cases relating to optical imagery analysis.

I think the neat thing here is that alone Machine Vision is never being explicitly trained on satellite imagery. Through just some tuning and prompt engineering. We created a pipeline to do large area optical imagery analysis. So, Machine Vision can scan enormous areas over 15 kilometers squared in about 10-15 minutes and search for very, very small objects purely through natural language.

So, in this example, we ask the model to detect the solar panel from satellite image and that from satellite gives the model the context and it shifts its visual perspective to the top down and to look for objects from that viewpoint.

And you can see that then we can segment those objects that we're detecting from that prompt.

Again, this is just showcasing the models. I think it's quite a nice example that showcases the model's ability to subtly differentiate between different but similar features purely through natural language.

So, we're asking to detect the tennis court from satellite, then the baseball pitch from satellite, and then the running track from satellite.

So, you know, these features are quite similar, similar size, they're kind of blending in with the green environment, but just through that natural language. And again, Machine Vision is not being explicitly trained either on satellite imagery or baseball pitches or tennis courts, but just through that interaction like you would with Chat GPT and it's able to slightly differentiate and attack these objects.

This is a pre recorded version of me doing Machine Vision live. So, there's no post processing on this.

So, this is the Machine Vision interface. And in the middle, we have my camera feed, which is hooked up to my external webcam. And just below you can see that prompting interface we mentioned before. So I can type in and ask it to do different tasks to track the person. Next, we can try track the phone.

It's a binding box around that object and tracks it as it moves through the feed.

Now, if we look at other objects around the room, like the cups sitting on the table or identifying the TV on the wall, again, despite it being at an angle and it's not quite clear visually from a first glance what that is exactly. And then track the chair. So, machine vision is really good at tracking many objects simultaneously. The impressive thing here is that, you know, a lot of these chairs are actually partially occluded and covered underneath the desk. But again, because there's that fundamental understanding of the model that's looking at a room, an office room, table and chairs, and it deals with it really well.

And then just like we saw on the other slide, you know, we can track the pose in real time. So, it's creating that wireframe of my body and posture and limbs.

Here I'm just showing Machine Vision's ability to work on many objects and people at the same time. So, there's interest for this sort of for these types of use cases across fall detection, threat detection, even shoplifting or as we mentioned, you know, tracking specific individuals.

And just to touch on our client deployment in a little bit more detail before handing over to Andrew, this is a client we're working with in the UK, Network Rail, in early stage flood detection. So, we're monitoring erosion around the base of bridge structures. So, this image is showing real time segmentation of the bridge and you can, for example, you can just see just about see how visible this hard but not visible. This pipe is on the left-hand side, but machine vision is picking it up as well as the segment in the bridge structure and picking up bits of debris around the base. And currently our solution is monitoring 3 things simultaneously.

So, we're looking at the water height.

So, because the cameras at a fixed location at a known distance, we can calculate and extrapolate the water height at any given time. We can calculate the water velocity by picking up reflections on the surface and measuring how fast they're moving across the screen. And then also crucially the erosion around the riverbank at the base of the structure. This is a critical parameter that they track and the majority of the damaging effects happening within the 1st 15 minutes of the flood.

So, our model can track how that riverbank has eroded and changed and changed over time to the point of millimeter squared and seeing what's changed from one point to the next

And so here I'll pass over to Andrew for the next slides.

Andrew Keen
Thanks, Jonathan.

So, at the beginning, we touched on the system that we put in place for our National Rail infrastructure plan. And this is the just going to show you a few pages of, of the interface that we've built for them. And the first thing to stress is that this is for engineers to detect risk associated with bridges. There's actually three bridges displayed on here. So, you can see them on the left hand side. You can see the so the pictures on the on the right-hand side and so on.

So, this is one window for the engineers to see the risk assessment that has been provided by Machine Vision and other sensors, which we'll talk about in a minute to determine whether that bridge is at risk and whether it needs to be closed.

Now that's very, very significant for network for many reasons.

One is that today and for the last 150 and 200 years, the decision to close the bridge is based on the water height.

And the way they determine that is they send somebody out in a car, or I guess originally a horse to actually look at the height of the water against the mark from the bridge. And if it reaches that marker, then they automatically close the bridge.

So, there's though nothing more than just one measure and it involves people going out in very dangerous conditions to do that.

So, what we're doing here is bringing together a bunch of technologies that can, that can relay information which is visible above water but also underwater in order to provide that risk assessment.

And although it's probably pretty small on the screen, there's three things we're monitoring here.

One is the water height that Jonathan was just talking about.

The other is the rate of flow of the water.

And the third is the amount of water erosion or scour, as it's called by the railways.

So, these three things are brought together to determine overall the risk assessment. However, there's more to this. And remember that first slide with all the different components, what we're doing here isn't just providing readings from different sensors. We're putting that together as a digital twin.

So, if we look at the next slide, you'll see at the heart of this, again, kind of 1 pane of glass on their world. At the heart of this is a 3D representation of the bridge, which has been created from drone footage. An overlaid on that you can see the sensor datas that are providing information back.

And this is part of the approach we're taking of how you build an operationalized AI model is you have this digital twin at the heart of it, just this LLM large language model capability like ChatGPT because you can do things with that. You can query the model, you can also predict with the model to say what actually the bridge needs to close, let's say in an hour's time.

And the reason that's important is that when they close a bridge, particularly on the main line coming out of London for example, they have to pay the train operators up to £350 a minute of time whilst that bridge is closed. So, if the bridge is closed for two weeks, that can run into very, very significant costs and this is why it's so important.

So instead of just someone going out in the car, looking at the water level and closing it, we now have much more intelligence around the safety of that bridge and whether it should be closed or not. Because that makes a massive difference financially, but more importantly makes it fantastically important for passenger safety. So, they can make decisions based on safety as well as the cost.

Also on this interface, you'll see some other things. I think maybe there's another slide, Jonathan, around the parameters so that the engineer can drill down this. You can actually see the tide coming in and out on this slide. So, they've got this kind of one window on their world.

Now the reason that's so transformational is because I think if we look at the next slide, there is a, the engineers can actually see if you'd like in real time. We'll go back in time to actually see what's happening with that asset. So, it could be a bridge, it could be a highway, it could be any oil and gas, it could be any example.

But the point is they have all this information relating to these assets and the railway network have I think 30,000 bridges in total. So, you can imagine that, you know, having real time feeds of the bridge itself is actually really important.

And as Jonathan said, we're not streaming video back to some cloud somewhere. We're just setting metadata. We're just saying the water level is this, the water flow rate is this or the scour level is this. So that's really important how we're doing it.

So, I think if we look at the next slide, this, this really brings it all together. What we touched on earlier about how do you operationalize AI and also how do you measure the value that it's delivering.

So, I'm just going to pull out a few examples here. So, the first is that we'd calculated that Network Rail spent over £100 million in the last five years on repairing the damage done to bridges and the cost of those minutes by which is that they have to be closed.

That's a really, really significant cost.

So that means they lose revenue, it means that they are reacting, it means that they are having to make these decisions, people going out in cars and so on. This is the world as it was the last five years.

What we're doing here is and these are the words as you could bear words on the on the right-hand side is for them. This is transformational. This is moving from a world of reactive and manual

inspections of assets to the ability to have real time monitoring. And because of this digital twin of the hearts, I would machine vision and the ability to have predictive elements, we can actually do real time monitor and predict when that infrastructure might fail.

So, this isn't just for disasters, you know, it's most dramatic obviously when there's flooding and so forth, but it's also you can monitor their assets longer term for maintenance and then still to do predictive maintenance. If they start to appear cracks, as Jonathan said, we can measure down to millimeters.

So, this is a combination of just one example of the many use cases that that Machine Vision can support. As I said, this is transformational to the railways in terms of their safety, costs and efficiency.

So going back to the first slide, going back to the digital twin and so on, this, this slide brings together that idea of the digital twin at the heart. Again, we've applied this to police and multiple other sectors, but it's bringing together. What we're seeing is these solutions need all of these technologies being brought together and represented in a way that AI can support, such as the prediction and querying. We can actually query the model. That's really important.

So, for Network Rail, this is exactly what we're doing.

You can see the drones there. You can see machine vision there on the left-hand side that's sending metadata back through the mobile network. We're using batches and solar panels because we can't always rely on getting power. We're using all these different sensors, these kind of IoT devices as they might have been called, satellite imagery records. They have records going back 150 years of the bridges and so on. Those have been digitized.

All of this brought together as one model then allows us to do that one pitch, one pane of glass on their world in order to assess, to determine and make decisions about safety.

Thanks, John.

Johnathon Colville
OK, thanks, Andrew.

Everyone. That's Machine Vision from CGI.

Divya Goyal

So, if we have any questions for the Machine Vision team, we can ask them now and from after the Machine Vision, we'll move to the BidGen team and then BidGen team will present its solution there.

But any questions in the room, we apologize. We are not taking questions online here for now. But if you have any questions, feel free to send it our way or Kevin's way and we will be happy to get that addressed at a later date. Do we have any questions in the room for Machine Vision at all?

I suppose you guys were very clear. Thank you for that. Maybe we can park the questions for later. I think the team will stay with us.

So, in case if there are any questions that do come up after the BidGen solution presentation, please feel free to ask that. I think with that, we can move directly into the BidGen presentation. Thank you everyone.

Dave Henderson

And I'd said I had to remark while we're moving to BidGen, I think the reason we love this example of machine vision is because it does start to reveal the amount of complexity, the engineering that has to go into making this work. But at the same time, how much simpler and how much more powerful these solutions can be using generative AI, using the large language models, but using them in a way that's been engineered for the use case. Being able to prune the LLM so that you can run it on a Raspberry Pi so that you can manage and monitor all these different sensors so that you can query the device, you can query the visuals that you're seeing.

And so, it's just really, I think a great example, but also one that shows off the end to end approach that you have to have in order to deliver a, a full solution, a full business solution. So that's the way.

And so now next we'll turn it over to Andrew and Steve.

Andrew T. Donaher

Thanks, Dave.

Just share my slide here so we can see it.

Thank you, everyone.

Forbes, every time I see that, it gets better. Nice work. There's something new in that one.

My name is Andrew Donaher. I'm Forbes' peer. I'm vice president of AI data and analytics for CGI Canada.

And with me is Steven Lippock. Steven, do you want to introduce yourself?

Steven Lippock

Sure.

Hello, everybody.

My name is Steve. I report to Dave and my role is business owner and helping to roll out pitch and to our business developers globally.

Andrew T. Donaher

Wonderful, Thank you, Steven.

So as Dave Henderson mentioned earlier on today, we have you know as an organization we've made an investment in AI and responsible AI to benefit our partners, our clients and our shareholders such as yourselves. And we want to talk a little bit about today is couple of the fruits of those labors.

So, Machine Vision was one and BidGen is another.

And as Mr. Sarah Skodan says, we're really good at walking The Walking. Now we're going a little bit of talk. We're going to talk the walk a little bit and share some of some of what we've done here internally with BidGen .

So, I just wanted to share with you a little bit of the, the, the origin of story of BidGen . So BidGen is a responsible AI solution with human in the loop that follows our responsible AI and responsible use of technology patterns. And this was, this is designed to really help with business development and business solution design from cradle to grave.

And so, when generative AI was becoming more and more prevalent a couple of years ago, we were looking at some opportunities across the organization here in Western Canada. So, so like Forbes, my group is responsible for, you know, client delivery. And as part of the client delivery, we're perpetually looking for the best of CGI around the globe. How do we bring that forward to make sure we're not reinventing the wheel? How are we going to improve our win rates? How are we going to do that efficiently? How are we going to demonstrate our capabilities to clients?

And as we were doing that here in Western Canada, one of our leaders, Dean Bosch, was asking about, you know, how is it possible to leverage this in any way, shape or form to support with proposals. And our, our team got together and thought that through and, and we came up with a way to leverage generative AI to support in the development of these of, of responses to requests for proposals. And some of the key things that we, we really wanted to make sure that we were avoiding was some of the mistakes we had seen in the market with some other organizations and making sure we're using the best of CGI and we're not self-polluting with AI content and those types of things like making sure we can really bring forward the best of CGI and the curated content across the organization.

And so, we had an early pilot with that, which I'll, I'll share with you a little bit more later.

And then from that, we, we shared the story and, and what we call our ICE initiative, which is our, our innovation program globally and we won that and the organization continue to invest in us and that's where we're able to build it out and, and scale it out.

And this is really focused on, on three areas that you can see across the bottom is how do we increase our win rates? You know, how do we make sure that we're bringing forward the best of CGI and not just what we know about CGI? There's and, and one of, the benefits of this new organization is that the breadth, as Dave mentioned earlier, that the, the complexity and the breadth and the scale of the things we do and making sure that we can elicit that. So, we're not trying to reinvent the wheel. How do we leverage that to their clients in any geography on the planet can benefit from those things?

And 2nd is around operational efficiencies, removing that non value add time, removing the stresses,

removing the, the, the unnecessary churn so that we can focus on designing things for our clients so that we can focus on our pricing, So we can focus on meeting our clients where they're at and understanding so that we can actually deliver the proper solutions without that, like I said, trying to reinvent the wheel or spending unnecessary time in that non value add, that non value add space.

And finally is demonstrating this to our clients.

So as, as Forbes said, you know, one of the, one of the things that as leaders in this space and as people who are, who are, you know, walking the talk and, and, and practicing what we preach, we wanted to be able to share with our clients that, that not only are we leading and not only are we looking at this, but we're delivering this, we're doing it internally.

And so, looking at how we're client zero and how we are safely and effectively able to use these technologies to drive business value internally is absolutely critical.

So, I still have conversations with clients today about how to do these types of things and make sure you're driving the value from it based on the lessons learned that we've that we've had.

And I'll share you more about those stories in in a little bit.

And so, we talked, we talked about BidGen. it's really important to understand. And Steven, who's on the phone here with me was a was a great advocate of this and really making sure that we help to understand how are we going to use this solution, you know, throughout the entire business development life cycle, CGI, we don't believe it's one ring to rule them all.

It's how do we use BidGen for this? How are we going to use Machine Vision for another? How can we use these things differently?

And Steven was great in saying, OK, if we think about business development holistically from early draft of an e-mail to industry research and understanding things to summarizing how CGI operates.

And one of the key differences for us across all of this is how we're using this in the safe and effective and efficient way.

So, we're not, you know, we're making sure that it's curated and only our content. We're not sending our content outside, we're not sending our content to models where we don't know where they go.

And I'll talk a little bit in a second about how the security of that works.

But so, making sure that as we support this from early research on industry through to conversations with CTO and finally creating proposals and designing content, how do we support that throughout the life cycle? And, and we've been really focused on making sure that we can support not just through the in the BD cycle, but also in solution design and development and making sure that we can deliver that through.

And as we talked about this with our clients and I know there's, you know, some conversations in the market right now around, you know, how people are truly receiving value from this. And we found

some of the keys to success that we've been able to share with our clients around using these types of models to make sure that you're driving that value when you're realizing that value. These are some of the key things.

So, collaboration, we had a great collaboration from across the organization as a whole.

One of my colleagues said to me recently, if you want to go fast, go alone. If you want to go far, go together.

And so, we, we started out fast and then we moved over and went far together.

Actually Forbes, that was you.

And so, this is where we've had great collaboration across CGI. And it's one of the things that we, we, we share with our clients very openly is yes, this requires AI expertise, but it's not, you know, a single AI developer in a basement trying real hard. This is how does our AI group work with our security group to make sure that we're not exposing anything and that we've mitigated any risks. How are we working with change management? Change management is absolutely critical to this.
How are we going to use it? What's the training look like? How do people want to adopt it?

And then making sure we're working with local business partners as well as our super user group around the globe.

You know, people use this in different ways across the globe. And we find that as we in our, in our communities where we share this information across, across our Teams chats and Viva and our, and our internal intranet sites is as we enable that communication, people are sharing new and inventive ways to use this every day that we hadn't even thought of.

So that, that change and that communication is critical to the success of this.

And then obviously content. So, one of the things I mentioned earlier is some organizations are not putting the necessary due diligence around content that we have.

And again, our team's been fantastic. So not only are we pulling from cgi.com and our Internet and our branding site, but we're also got set of curated best in class proposals that we're pulling on.

So not only our enterprise class stuff, but we're curating and making sure that we're pulling in together best in class proposals, best in class designs and making sure that that's, you know, world class stuff that we're able to share in an efficient and effective way.

We're making sure that we're not creating content that the AIs created that were then feeding back in, you know, it's making sure that we're creating that elite content for the models to become smarter and smarter every day, to share the best of CGI.

And then finally on coaching. So it's, it's one thing to like enable people with these tools and have the greatest content, but we found an incredible amount of value around prompt engineering, teaching people how to, how to ask questions of these tools, how to manage the skills, how to understand

prompting in an in, in an elite way where you're able to create the content and elicit the questions so that it gives you an ability to be smarter.

So, what we're finding is that we're not replacing humans. We're making the experts more efficient.

Everything we're doing is around making our experts more efficient and more effective.

That's really what we're finding is that the, the great increase in, in productivity and the great increase in, in value that we provide us through that and it's across making sure that all three of these things are happening together in an effective and efficient way is absolutely critical.

So, with that, I want to jump into just a couple of success stories.

And the first one being the one that, you know, I was, my team was involved with here in, in Western Canada working with an energy company.

And in this particular instance, we had just started a new relationship with this company. They knew a little bit about CGI. They, they didn't know much about necessarily us in their space and what we had been doing.

And we had a great meeting amongst our executive teams to, to understand a little bit more of how we might be able to support.

And then coming out of that meeting, they said, oh, hey, we're actually putting an RFP on the street. Would you, would you please respond?

And so, it was a very short deadline. I know that's a surprise to everyone as well as you know it was over the holidays. So, you know, the typical sort of very, very difficult thing for our team to respond to. But so that was the first instance of when we used BidGen.

And so, couple of the key things here is number one, we were able to, our estimates based on our analysis post response was that we were able to conservatively we were able to save 50% of the time in the generation of the content.

Now what that meant was we were able to reallocate that time. And this is where a lot of people are missing this. We're actually able to take and reallocate that time into the design of the solution, into the pricing structures, into the value so that we could actually meet the client where they're at and design a solution specifically for them without the stress.

And so, as a result of this, not only do we make it on time, but there is an incumbent that had already done the proof of concept for them in this space. And we displaced the incumbent. We won the proposal. We and then afterwards, as we were beginning the business, the client said to us, you know, you guys were the, the response itself was so strong and we could tell how tailored it was that you had pretty much won everything before the shortlist just on the quality of proposal alone.

And so, this was one of the initial ones. And one of the things there's a great study that was done on

November of 2023 by MIT, Harvard and Microsoft. It's a scientifically done peer reviewed study. You can have a look all it called generative AI at work, and it talks about productivity and how these tools are working.

But one of the things in that study that everybody's looking past that we found in this particular example is people's engagement and people's stress levels.

And so, what we found after this response was I actually had members of the team call me and thank me for the ability to use this tool because you could you could physically see their shoulders dropping because they now had support to remove that non value add work.

And so now they were able to focus on the things they like doing, the things that are value add, things that are productive.

And so, this is one of the great ways that we've seen not only in higher win rates, higher efficiency, higher effectiveness, but how it's supporting the team in engagement rates and in decreasing stress levels and supporting them with being more creative and finding time and space.

So great, great case study that that helped us to propel this into, into new, new, new levels across the enterprise as a whole.

And then these are some of the resulting solutions and resulting engagements that we've had with it since.

So, working with a, a large catering and, and facilities management organization. And they're having a challenge on the other side where they're actually trying to create out of contract quotes. And so that's an incredibly manual and difficult process for them where they need to increase their quote production, but they also need to decrease the amount of labor going into that. And they need to be able to generate additional revenue from those from those quotes from things that are becoming out of contract, obviously as it's coming out of contract.

And you know, the term resulting from that for clients can be quite substantial. So, what they're trying to do is leverage this solution to be able to create those proposals in advance of that that are customized to their client the same way that I just spoke of earlier. You know, how can they improve margin without having to hire an army of people to be able to stay on top of this in perpetuity?

And so, this is really about strengthening the business case for them, supporting them with the amount of work. As we all know, there's around the labor lump fallacy. There's no shortage of work. And so, we need to be able to leverage these tools to be more effective and more efficient in order to help drive through that, that ROI.

And then this is another example of that. We talked about it from a different perspective.

So as Dave mentioned earlier on in his opening remarks, the scale and the complexity of the things that we do can be quite daunting and amazingly difficult to manage.

And so, with this one was a for a, for a large organization was preferred supplier RFP. Again, it was a little bit of a short timeline, but we had seven different business units from around the globe trying to work on this.

And the RFP itself was for eight different components, everything from application management to application development through to data management. So, you've got 7 BU's, you've got 8 different categories, you've got a short deadline, and you've got to create a world class proposal that helps us to leverage the best of CGI to show up efficiently and effectively.

And by using BidGen., we're able to do, you know, as we just said, 2 three things. Two key things is number one is customize the content. So, we decreased it the iteration and we decrease the amount of search and hunting time.

But #2 is we're able to surface the best of CGI in a coherent way across all those BUs.

So it wasn't just one person sending something over the fence and, and, and then trying to, to mix it together by helping to coordinate the groups and by helping to stay to, to remove the searching and hunting time, they were able to coordinate, spend that time on collectively designing that solution together.

And so, this is the type of value that we're seeing and it's improving the collaboration and the creativity around the organization as a whole.

And then the last one that I wanted to share with you before we jump into to a video here is around commercialization and going to market.

So other organizations are having these same challenges and they're having the same challenges on the other side of the fence where they're trying to create proposals. And so, the amount of effort that's going into that. And one of the gaps that we see in the market right now is a lot of organizations that are trying look at all your historical RFPs and then just kick an RFP up from that to put on the street.

Well, the way that we're approaching this is slightly different where we're actually looking at your content, we're looking at the sources of the information and how that's being designed. And then finally what your target looks like. And then being help, help organizations, we will actually create those proposals in a more natural and effective way.

And so, this is an example of that where we've been meeting with this client, we have we have a great relationship with them.

We, we talked about CGI as client zero and how we've done this work, the, the, the, the trials and the tribulations and the successes and some of the lessons learned that we've had.

And because of that, now we're working together to determine how we can commercialize this together to move forward so that they can, they can also help to understand how can they create more proposals and how can they also be used to respond to more proposals differently.

So not only is it helping us, we met, we see an opportunity as well to commercialize this in a very robust way. Let's just put it that way.

So, I'm going to jump into a little bit of a demo here. And just as we jump into the demo, it's a, a video that I'll share with you.

But couple of things is as we go through it, it's, you know, who am I as a, as a business developer, moving from that and then into the account status and, and how am I going to be able to learn more about this organization within a particular industry? And then how am I going to prepare for the meeting? And then finally, ongoing when we start to move through the sales journey and creating proposals an extra.

So, this video will help you to understand how we're using this solution and the different things that we've done to enable it across the organization.

So, with that, I'll press play. And if there's any challenges with the with the audio, please let me know.

Video Demonstration with CGI Speaker

Discover BidGen. CGI's generative AI solution designed to accelerate business development with human in the Loop intelligence.

The purpose of BidGen is simple.

Accelerate operational efficiency and proposal quality by providing business developers with access to a comprehensive global content repository to create compelling sales presentations, bid responses, and proposals with Gen. AI capabilities.

Let's imagine a use case for BidGen in a business development journey. I secured a meeting with a C-level stakeholder and need to prepare. I want to understand current challenges banks face and have smart questions ready to engage in meaningful dialogue.

For this, I'll ask BidGen to provide insights on the top five to 10 most common banking challenges and strategic questions to ask during my meeting.

Now that I have a better understanding of their challenges, I'm ready to understand my clients' priorities. I upload their annual report. I'll ask BidGen to analyze the annual report and provide clear insights on the bank's top priorities.

After a productive conversation, I turn to BidGen to explore solutions tailored to the Bank's priorities. I'll ask for relevant CGI offerings, including services, IP solutions, and case studies that address their challenges and deliver measurable business outcomes.

Fast forward, we have completed several rounds of requirements gathering and created a future state vision with the Bank's leadership team.

By engaging early and positioning ourselves as thought leaders, we influenced the requirements of a newly issued RFP. While we have a competitive edge, we still need a strong response to win the business.

To get started, I turn to BidGen and use the secure file upload feature to provide the RFP document. BidGen quickly analyzes it, summarizing the key elements and drafting a compelling executive

summary that directly addresses the RFP's requirements, targeted business outcomes, and vendor selection criteria.

To stand out, I compare the RFP with the Bank's annual report. I'll ask BidGen to identify how we can align our response to the RFP's requirements with the Bank's strategic initiatives by highlighting key similarities.

I can also ask BidGen for relevant client references and success stories to strengthen our proposal.

Next, I asked BidGen to write a draft of an executive summary for the RFP response.

BidGen also helps me collaborate by connecting with document owners and CGI experts for feedback and additional input.

With BidGen , CGI business developers work smarter and faster. From prospecting to proposal generation, BidGen supports every step of the sales journey.

Experience the difference. BidGen . A smarter, faster way to accelerate CGI business growth.

Andrew T. Donaher

So just a couple of comments on that video, a couple things you may have noticed in it.

Number one is obviously with the lineage and the searchability, it talked about how to be able to see where the information came from the contact about it. All the metadata resurfaced on the supporting content around that. So that not only do we have truth and, and, and veracity scores, but we also enable the users to see all that.

And then second, which is what we found super valuable, is our ability to toggle from, you know, general CGI repository to larger repositories to single documents or multiple documents. The ability to provide context throughout the journey within a session even has to prove extremely valuable, which is a different way than some of the other solutions you'll see out there the way they operate or some of the more public tools, the way they operate.

So, we've had fantastic results with this trying to, you know, helping our helping our group not only deliver more and become more effective, but you know, decreasing that stress and be able to increase creativity and productivity across the organization.

So, with that, thank you very much.

I think we have a question period now Dave, if you wanted to circle that back or happy to take any questions if there are any.

Dave Henderson

And I think, you know, this is again, an example of taking really a lot of disparate information that we have across the enterprise.

But I want to make it clear too. And you know, bringing and bringing it together for our business developers.

We read a human being reads every word in our proposals. In many cases, our proposals are actually part of the contract.

So, you we, so we have, but it helps the humans, human experts do those reviews much faster, do it with a, a greater accuracy use because we use AI, for example, when we're reviewing the documents as well as when we're creating the documents.

But at the same time, you know, you have to have a human in the loop the entire time when Forbes and the team, we're talking about machine vision, this is a, you know, phenomenal helper to the engineers, right? But you need an engineer to look at that and assess what's going on with that bridge, right? So, it doesn't obviate the need for experts. We're not ever going to push a button and have, you know, BidGen gen create a proposal for CGI that's going to get sent out the door. And nor would we want that.

But at the same time, it's helping our experts and our developers and our business developers be that much faster, be that much more accurate, right, because they, they have access to a much greater swath of data from within the company where we bid on things, where we've looked at and, and what has worked and what hasn't. And so, it's a great intelligence tool as well in terms of helping us, I think bid more effectively on, on what we're doing.

And then as Andy showed, yeah, there's a lot of you can just take it from there, right? In terms of what can you do with this?

You can flip it around and say, hey, this is going to help me create, quote, create orders or process proposals that are coming in for, for, for, for a client of ours, right? And look at those proposals and help them assess those proposals and rank and rate them.

So, a lot of lot of use cases here. But the great thing about this is that the innovation is really happening again out in the field.

There's no big ivory tower, you know, I mean, and I think some of our, you know, certainly a lot of our competitors are building these big AI towers, and I think, you know, that's great.

But what we see is we've built an interconnected network of experts globally. And you're, you're looking at some of them on the screen here.

But this team acts as a global team, but they're very, very connected to the business that's happening in their geographies and to the clients that are, that are that they work with. We could have just as easily swapped these, these fine gentlemen out here for a team in France and a team in Finland that have equally compelling things that we're doing for those clients, for Airbus and for the University of

Helsinki Health Center where we're doing brain scans with AI, where we're helping Airbus in France look at their bills materials.

So, there's a, again, a lot of use cases. We hope this was a good example of how this is starting to take root within our industry. But it really is, I think, you know, going to change the way we operate and change the way our clients operate. But certainly, as an IT services provider, this is really transformational for us as a company, you know.

OK, there are two questions in the room.

Yep, Yep. Go ahead. Yeah, maybe just run this microphone. I have a mixer.

Audience Question
Just wanted to know how BidGen works internally like do you do it for every RFP which you go for new client hunting and how much of operational efficiencies does that gain and maybe BidGen plus Machine Vision together.

Kevin, how, how quickly does this transition IP 30 or is it, does it not?

Dave Henderson
I think, well, first of all, I think Machine Vision is a great example of how we're cultivating IP to continually, you know, strive towards IP 30, right? IP 30 is a, is a goal that we've had for a long time, and we think it's a really healthy goal, but we like, we like where we're at now too.

We, I mean, I think 22 23% whatever we're at now given from the last earnings call is a, is a, is a good solid base, but we obviously want to continue to strive for IP30 and that requires innovation and investment into solutions that we can bring online.

So absolutely this is a, a great example of that BidGen as well. If we, if we start to sell it commercially and these guys are obviously looking at that, that's another example of how we can generate more IP revenue.

But Andy and Steve, look, you guys want to answer the question about kind of how does it work?

Andrew T. Donaher
So we do not mandate that everybody uses BidGen on every proposal, but it is available from the default on our internal intranet and we're seeing usage climb on that.

And I can tell you that through my teams personally and through my extended network across Canada and North America, it's being used very extensively in Europe as well.

We were in Canada cabinet recently and our, our leadership within Canada was talking about how much more effective it's become. We have senior VPs who are now, we're no longer using PowerPoints in some of their meetings because we're using BidGen. We're using similar tools to actually force through those, those conversations right from biz dev right through the end. And it's, it's helping us to, to, to, to show up better, even better and even more effectively from an operational perspective.

Steven Lippock

And what other common, Andy, as we operationalize BidGen., one of the ways we do that, we provide a lot of sales enablement tools but integrating them into existing processes and systems is really how you gain significant adoption. And what we've done recently as we've integrated BidGen into our CRM environment.

So, BidGen not only can be launched directly from CRM, but it also will pull information and attributes from an opportunity record in CRM to initiate a prompt in BidGen. So, the power of the toll stands alone, but as it becomes integrated and operationalized into other processes and systems, that's where we really see that the utilization skyrocketing.

Dave Henderson

And I think, you know, I think that was a great question too, because I think one of the things that we see with all of all of these things is adoption is really kind of the, is really a key success factor, right? You've got to get adoption. And so, and, and again, you don't just throw it out there and say, hey, everybody use it. You've got to provide training; you've got to provide an idea of how it's going to be used. You've got to provide an expectation of it being used within your enterprise, right?

If you make it optional, if you make it, you know, then people, people being people will revert back to the kind of the easiest thing that they know how to do, right. And so, I think there's a, there's a, a genuine amount of and a large amount of effort that goes into increasing adoption. But we have dashboards with, when we have something like this, we can see how people are using it, and we can start to introspect a lot of the data that we had no visibility on before.

CGI Representative

And one thing I want to add to it is it's not only improving how we are doing it. We're solving problems like in the past and we see more and more of very complex RFP that there are multiple tabs, hundreds of questions that you have to answer in the top-notch quality of each question.

How are you able to do that in two weeks and including drafting, reviewing, approving the whole process, get out the door in two weeks of hundreds of questions.

And then sometimes in the past we couldn't really just throw in bodies. These have to be knowledgeable really good writers. And now we have we solve that problem. We are able to bid much more effectively than before.

Audience Question

Thanks for the demos.

My question is more on can you elaborate on the monetization strategy for these two tools and the go to market approach? Because it seems like for Machine Vision, it feels more like a ServiceNow where you charge like a 30% premium and then layer on a consumption-based metric because your cameras are in real time using a ton of compute.

Whereas for BidGen it sounds it feels more like a Microsoft Copilot where it's going to be seat based. And just curious on your thoughts on that.

Dave Henderson
Any questions more on how do we go to market with each other and monetize? Yeah, the I think, well, that's, it's a great question. It's one that we ask every time that we see one of these investments and, and or products or projects.

But Forbes, you want to take Machine Vision, you guys have, I mean, typically what we have here, we have a pipeline of opportunities, but many times we're not selling Machine Vision or BidGen as a stand-alone thing, right, because we're selling it as part of an overall solution. And so, it's augmenting something that we're managing more end to end for a client.

But you know Forbes, you guys want to talk about how you've deployed this so far and how Machine Vision has started to monetize for the business there.

Forbes Mckay
Yeah, yeah, sure, Dave.

So, yeah, it's a good, good question because it's not as, because we're kind of defining a slightly new category of products, right for these buyers, then takes a wee bit of navigation around the organization to see how it fits into their IT estate, which is, you know, called for. It's not going as fast as we'd like, right? But it's going a lot better now that we've got live sites working well and I think we're into the right people with budgets.

In the Network Rail example for example, you know that we showed they are regional business, each region it's got its own budget to run its network in that part of England and Scotland. And I'm working on a couple of strategies there to one, start packaging up, you know, the software camera, etcetera into our set that they can install in a standard format, maybe with T-shirt sizes, small, medium, large, your installations for bridges. And that'll have an upfront cost to cover the capital of the camera, etcetera. And like you say, a subscription cost for the service going on and then other kind of break fix services to you know, to repair the kit in the event it gets damaged ironically by a storm, the very storm that's trying to monitor.

So yeah, we're thinking it's going to be a little bit of upfront. They understand CapEx, OpEx, you know breakdowns and the budgeting works like that with subscription revenue subsequently.

But imagine they'll be stepped up so that they can buy the call of packages at a time depending on spare money in the current budget period. What we're angling for is allocation, you know, to this category of spend right in the next budget period which comes up in a year or two.

And that we imagine that we similar for other big asset operators they've got you imagine a mining company, we might do the same. They trial it on one mine for the monitoring materials for example. And then I think, right, could we could be roll this out to all the mines that do the similar process.

Dave Henderson
Yeah. And we, we would want to manage that as a service for that, that target client, right. And so that's, so it's still we continue to be a managed service type of situation.

Forbes McKay

And then to your other point, Dave, that's it as a standalone system. Once they start saying, well, actually we're going to start relying on this and it starts to become, you know, part of the fabric, they'll then want to weave it into their existing real time telemetry, alarm management systems, etcetera. And that then gives us an opportunity to help them do that. And then, you know, look for bigger deals around management of these platforms which are altogether bigger and longer term, you know, patterns of spend.

Audience Question
I'm hoping to ask 2 questions if that's OK.

The first one is for Machine Vision. Just wondering how easy or hard it is to move off a foundational model because my understanding is that you take a foundational model, just you need to steal it and you kind of implement it locally. So, let's say 10 years later, there's a smarter or a different provider, smarter, smarter model or a different provider. How easy or hard to move off of that?

And then the second question is on BidGen and any tips or mistakes to avoid for our RFP team if we want to use AI like your machine written first.

Forbes McKay

So yeah, the so the model, yeah. So, we install the model. So currently this the model is our own at the moment, right? And we, you know, built it up and trained ourselves and then we fine tune it with new images that perhaps hasn't quite seen before to make the accuracy better. That's usually the need. You know why we need to do that? It doesn't need tag your manual tagging to do that. But we fine tune it. Then we put it down, put it on the machine and in the in the field. So, we've got the ability to update that on the fly so we can update it with better versions of the model. Indeed, we're doing that right now with Network Rail. We didn't imagine that boats would be on the river getting in the way of the bridge and it got a bit confused when that happened. So, we've covered that use case and reflections of the problem during the track.

Then you're I think you're asking for if I really a much better model came along that could be deployed and maybe a third-party model. Yeah, that may well exist and come along in the market right now the big open source models, you know, like the Meta one work super, you know, they're super, super good and segment all sorts of different things. We can't currently prune them right down small enough to fit on the device in the field, right? So, but that may well come, and we would have to weigh that up at the time.

So, I think we could do that and swap the model out. They're not completely interchangeable. There's you know, there's kind of a standard for it, but we could well do that down the track. But at the moment we keep on enhancing the model. We're investing in infrastructure for, you know, more model training and speeding up that process. So that we can continue to enhance the model and then print it down for, you know, faster lower power inference for different use cases.

Does that, does that answer your question?

Audience Question
But just to clarify, you use Meta's open-source model and you distill that, right? Is that kind of how it works?

Forbes McKay
No, sorry. What we're saying is that our model is built up from open-source image libraries and our own image libraries we've done through client projects, and then we prune that back down and deploy it on site. So that is proprietary to CGI. That's our IP.

And we've compared it though with things like the Meta model. It's trained on a much bigger image set, you know, from the meta nose, and it's got right. And that does work super well. So, you can imagine a future where that thing is somehow deployable on a tiny computer running on a battery and a solar panel. Right now, that's not possible.

So, you know, I think your future scenario is potentially possible down the track. People might work that out to do it, but right now it's not possible to do that.

Audience Question
Got it, Thank you.

Andrew T. Donaher
OK. And then you there's a bid Gen. Question Yeah, on the bid Gen. question, a few things.

Number one, don't release them at Christmas. That's not fun. But really the two most important things are that we've seen is #1 make it easy to get to so that people can use it throughout their current processes. Don't try and make it onerous to get to.

And then second from an obviously with transparency and data management and all of that, the key thing that we're seeing, yeah, people need to understand is that the data is important, but your data governance or your data management programs are a start to start dependency with this. A lot of people are saying wait till I get my data in order, then I'll start. That won't work. What this needs to do is it needs to start with that. It's going to surface opportunities for improvement. It's going to think about different ways to improve that. And so, you're going to be able to understand what type of information is being fed into these models, how you're going to manage it.

You know, don't spend 2 years trying to figure out how to get your data in order before you start. Start these things in, parallel together.

Divya Goyal
Thank you.

Just on the topic of BidGen, I wanted to understand. So, it is currently an internal solution you are, are

you planning to commercialize it at all? And what is the underlying LLM that you use? Did you train your own models, or did you use an underlying LLM to train on your data repository for that matter?

Andrew T. Donaher
So first question around commercialization, yes, we are looking at commercializing it. We have not yet commercialized it, but we're in talks with that organization I mentioned and a few others who have seen the solution and have understood how we're using it, and they're interested in commercializing it with us.

On your second question, we started with the Microsoft Azure Open AI Framework. That's, that works in conjunction with some of some open-source models. We move all that out, but we started that. And one of the key things that everybody kind of overlooks in this, I'll, I'll share with you around that question is the LLMs themselves are important in which model you're using is important.

But one of the most important things that everybody's overlooking is the search and the AI search or the different types of search methodology that you're using to subset the information that goes into the LLM to create the response.

And so that's where we've been spending a lot of time refining and improving that.

Divya Goyal

So just last on that as a follow up is in terms of if you were to consider commercializing the product, do you see any other competitive solutions out there? I would like to imagine Salesforce would have a solution like that? And yes or no? If no, then what are some of the proprietary capabilities that you've added in the model in order to differentiate it so much more than anything else available outside?

Thank you so much.

Andrew T. Donaher
Yep, there are competitors in the market, absolutely.

So, some of the enterprise clients like you mentioned, even if you look at Microsoft Copilot in the way that they're trying to structure what they're doing could be considered a competitor.

And there's a lot of start-ups in this space. Some of them I know here and on the West Coast that have tried and failed for some of the reasons that I highlighted earlier.

And I think some of the things that we've done are you can see in and I mentioned.

So, number one is around the ability to manage your documents differently and how you use those in, in context is quite different and quite important.

And then under the under the hood, if you will, some of the things that we've done around, some of the things we've done around blocking, some of the things we've done around, sorry, chunking, some of the things that chunking is you're putting these very large documents and you're trying to subset them so you can manage them properly. So, some of the things that we've done around that are quite

creative. We've actually had in some partners who have we've tried to help us in that area and we're actually way out in front of them in this area.

So that was quite encouraging as well as I mentioned, the search capabilities and the search management, we've actually added some functionality in there, as well as testing.

Our testing frameworks are perpetually evolving and we're using the same base technology and the same base components with other clients right now and in very, very large enterprises and public sector organizations.

And we're getting results using that, that same searching, testing and chunking capabilities together that are far out far, far in advance of our of our competitors right now.

Kevin Linder

I know we're bumping up the time, but I, I do have four other questions. I think most of these are to you, Dave from an investor.

So how many initiatives like this I, I guess we can talk IP in general would be under development within CGI.

Dave Henderson

So, we're running a program right now we're, we call it activating AI and our IP. And so, it's a, it's a sponsored by, by my team to work with every IP owner in the company. And so, we're running 10 to 15 product cohorts through where we're evaluating the use cases that are in a kind of A use case road map that these teams are developing.

And then we're working with them using experts from different parts of the company and also from some of our partners, right. So, we'll bring in, if it's a, you know, if it's a Microsoft solution, we'll bring in some Microsoft engineers. We work very closely with Google as well on activating the use these use cases.

The reason they want to do it is because they want to see the use cases implemented as well, right Because everyone's on this journey, right? No one is kind of got everything figured out. And so, everything that we learn by turning the crank is really valuable.

And we had, I'll just, you know, Google sat in on our last cohort and they sent us, you know, effusive feedback in terms of how, how great they thought it was and how valuable it was. And, you know, we're, we're really very encouraged and, and, and learned a lot by watching us go through that process of working with these teams, looking at the use cases, coaching and then also implementing with them.

So, I think we're through our 17, yeah, yeah, 16th or 17th cohorts. So, we're moving at a pretty rapid pace to get AI implemented. And then we have every quarter we'll have a new set of solutions come up through our innovation program that we can evaluate as well.

And that's, you know, that's sourced from people who have great ideas. Like Forbes said at the

beginning, there was a team in Australia that had, you know, this really cool little thing, right? And they wanted the world to see it. And so, they raised their hand and we they got the visibility and the support that they needed to now bring it to something which is really pretty phenomenal.

Same thing with Andy and his team out in Western Canada. They did this, they did it on their own. It was really cool and it's something that we needed globally to be able to we wanted to have globally. And so, we invested in it and now we've rolled it out enterprise wide.

So that's going to that, that wheel will keep turning as well.

Kevin Linder

Maybe to that point, second question, what kind of financial parameters would you be using for your business case, So I guess they're talking about the IP governance that we have on, on that. Obviously when we make a commercial, you know, addressable market size, time to break even.

Maybe Dave, just some insights on the solutions.

Dave Henderson

How yeah, we, we, you know, I, I won't, I won't bore you all with all the metrics, but you all are bankers and investment people. And so, I, we look at all the same things you look at and which is what is my ROI? What's my, what's my, what's the cash flow? What is our time to recover the cash invested and then and then if it's going to be amortized, what's the amortization period.

And then finally the most important thing, what does the pipeline look like?

What do we think is the, you know, what is the pipeline that's dependent upon this and so far, more mature IP, they've got a pretty big pipeline and they know that, hey, this is feature functionality that our clients are looking for that is AI propelled.

And so that's in our road map. And we're going to be and we just, you know, we just had our investment committee this morning where we, you know, approved millions of dollars of investment in different platforms and all of them had AI related investments into that, into their platforms.

And then so I think that, but you know, so those that are well formed, we have very pretty specific metrics internally about what we're looking for. You know, our return on invested capital is somewhere around 16, 16%. So that's a, you know, that's a benchmark that we're always kind of, you know, bouncing up against for less formed projects, right, where we're not going to make a capital investment, we're going to make an expense investment so that we can bring that forward to the next stage.

And so what we do is we invest not only money, but we invest people, experienced, you know, coaches from our human centered design team, from our AI team, from our IP teams globally to work with these teams that are small and maybe don't, don't are trying to develop their idea to help them to the next step. And so, we have a set of about four stages that will take them through before they graduate to an to a big investment, like a like a capital investment. So, it's a, you know, we're constantly turning that wheel.

Oh yeah. Well, and a great example was, you know, we, we have some really big clients where we've developed and I'll give you an example in, in France, SocGen was a client of ours and we developed a really, really process automation, workflow automation platform with them. And then we, we, we repatriated that to CGI and are monetizing it by selling it to other banks.

We sold it to four other banks, or financial services entities because it's very specific towards financial services processes and how to automate workflows and look at those workflows. But now we've generalized it as a platform called Digital Process 360 that we're taking globally as well.

So, but that was created with a client. A lot of our solutions have been created with clients and we've worked out an agreement with them to take it to market or to have royalties or whatever the case may be to recognize their investment.

Kevin Linder
OK, good. This one I think was sent in by our CEO. It says where would Machine Vision be on a path to profitability as to that point, can you talk about the investment that is made?

So, I guess Forbes this is to you. I mean you don't have to go in the obviously the financials of it, but I think maybe on its maturity, where is it in, in the extent you talk about the National Rail, where are we on the commercialization of that?

Forbes McKay
Yeah.

We're, you know, we've been rail, I mean rail businesses and all business and doesn't work super fast. And we've been with working with them for a year, a couple of years now. We've gone through various, you know, pilots and discussing it and we're hoping to get, you know, proper revenues with proper margins. And as I said later this year going into next FY as, as we align with their CapEx, their CapEx program.

But you know, the money we've spent so far, as Dave said has been OpEx money. WWe haven't splurged the big lump of CapEx on this because you've really got our line. It's easy to build stuff that nobody really wants to buy. That's really easy. And we've steered away from that instead of focusing on exactly what the client needs and you know, Andrew and the buyer here, you know, talking at conferences together about how exciting this isn't publicizing this to other rail operators.

So, we're hoping to getting out of rail production the next year or two and hoping to get interest from other rail operators internationally, you know, alongside that.

Kevin Linder

OK, thanks for and the last one, I love it was answered during the presentation, but maybe another Reader's Digest. What would be the difference between your Machine **Dave Henderson**
ision solution versus competitors?

I know there were some talks about different elements etcetera.

Forbes McKay

So, we did look at this because I got to be honest, you know, every few weeks I say, you sure there isn't something like this out there? You sure they don't have that? And every time we ask the client, they're like, no, we have loops. It doesn't do it. You know, you get kind of surveillance camera type systems there may well do some of the jobs, but they all go back to China, which not everyone really wants.

And what it comes down to is a lot of the systems on the market we spoke about did a market a global competitor review about three months ago and we found 3 or 4 interesting competitors who seemed to have some good capabilities. And we thought that's cool, let's try all of them out because we thought in some cases there's no point in us trying to sell the client something we've built. We're going to build up ourselves the extra cost when we could resell an existing model, you know, as a kind of as the integrator and do that instead at, you know, lower cost to the client.

So, if it already, you know, sitting on the shelf ready to go. And what we found was the competition tend to use the open and open-source model for Yolo that's been in existence for years and years. It's now about V7, something like that.

And it does a certain set of things, but not always terribly accurately. And then what you have to do to make it do the thing you actually want is you have to give it a set of images and then fine tune, retrain the model to make get focused on that one.

The best competitor we found that we are actually working with, you know, to address this kind of on the shelf demand. That process is a manual process. I think they send it offshore, and people review images and tag them and plug it in.

So, you know, that's how we compare what like I said there is they are there, but they tend to be based on the open source model which they don't own and they have got a slower process for getting the accuracy levels up.

Dave Henderson

Yeah. And I'll, I'll, I'll add to that.

I think the, the, the interesting thing about CGI is that we look at our IP portfolio even of our, even our big mainline, you know, you know, half billion dollar a year platforms. Those are we, we will work with clients if they if they need something that, that we can use that as a baseline and then create a bit more bespoke solution for them, we'll do it.

A software company would never do that. SAP would never do that. Oh yeah, they'd send you to an integrator who's going to build all that stuff for you. We will take our own base software and build something. Yeah, obviously it needs to be, the ROI needs to be there for us and for the client to make that work.

And we did that for you know, for HSBC as an example with our trade finance solution we took and we, we separated a lot of parts of our solution so that we could implement for them and replace their

global platform for trade finance. And it was very effective. But that's the, our competitor in that, in that, in that bid wouldn't have been able to do that.

They're, they're a product company, a software company. We're a solution company that has a lot of IP. So, our developers can take the componentry, even the stuff that you've seen here. And if we found an interesting way to put BidGen and Machine Vision together, we could do it and we would go do it.

And so that's the power of the power of kind of the I think the being a solution provider with really, really smart IP is having that out there as a set of assets that people can use to create any other questions.

Kevin Linder

I think we're good. 2:15 Thank you everybody for attending. Thank you, Thank you team on the phone. Thanks team screen. All right, have a thank you, Forbes. Bye, everyone. Thanks everyone. Good day. Bye, bye, bye.