

## Q&A with Dick Zhang, CEO of Identified Technologies providing an all-in-one Drone Mapping Solution that Improves Visibility in the Opaque Construction Workflow handling all aspects of the process from the Drone, Flight Planning and FAA Regulations to Data Processing and Storage



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“Digitized job sites give construction leaders the information they need to make fast, informed decisions for safer, more profitable projects.”

- Dick Zhang

**CEOCFO:** *Mr. Zhang, what is Identified Technologies' primary focus?*

**Mr. Zhang:** The majority of construction projects run late and over budget. It's difficult to track people, equipment, and progress on large job sites. Our all-in-one drone mapping solution improves visibility in the opaque construction workflow.

**CEOCFO:** *What does that mean in layman's terms?*

**Mr. Zhang:** Imagine that you are a construction contractor or you are running a site the size of San Francisco Bay or Central Park. You are responsible for managing the site with hundreds of pieces of equipment and hundreds of people. You can often only confirm what has happened a month after the fact. It is like trying to drive a car using only the rear-view mirror. Our managed drone solution empowers construction managers to capture and digitize their entire 3D job site. Beyond the data collection and progress tracking technology we also provide integrated services to help firms win more business and operate more efficiently.

**CEOCFO:** *How do you work with companies to pull this together?*

**Mr. Zhang:** We do everything but push the start button on the drone. The typical workflow with our customers is we train them and get them legally FAA certified so they are proficient operators of the equipment. After the initial training, users just hit the start button and the drone automatically takes off, flies the job site capturing the data, and lands itself. The software automatically processes the data and then the user logs on to our site to see their job site progress and collaborate with their stakeholders and team.

**CEOCFO:** *What kind of information will be picked up?*

**Mr. Zhang:** Users get both a 2D picture of the job site and an accurate 3D model. This allows them to quickly answer questions like “Where is our equipment?”, “Are we putting down our foundation in the right place?”, “Have we properly leveled the earth before we start putting down highway asphalt?”, or “How much asphalt have we put down this month, both by volume and by area?” It is a whole suite of analytics to easily measure 2D distances, 3D volumetric analysis, compare the initial blueprint plans to the actual job site and compare changes in the job site over time.

**CEOCFO:** *Do the people who would normally go out and look at the site, welcome the fact that there is a better way or do people feel displaced?*

**Mr. Zhang:** A drone isn't a replacement for a construction worker any more than an electric drill is a replacement for a carpenter. We empower professionals with tools to get more done, more safely, in less time. You have the

superintendents and project managers who are hungry for more data for better informed decisions. The surveyors and engineers are the ones that before us, had to climb up treacherous stockpiles, traverse the edges of these steep cliffs, and dodge dangerous heavy equipment. Now instead of risking life and limb, using Identified Technologies, they hit the start button and watch the drone fly and gather the data that they would have had to collect manually. New technology often receives initial apprehension, but once people understand how much easier we make their jobs and lives, they welcome us with open arms.

**CEOCFO: *Is there any doubt in your audience's mind that drones can do this or is more basic education needed?***

**Mr. Zhang:** The good news is we are no longer going through that basic education. Three years ago, most people in our industry thought it sounded too good to be true. Over the last two years there has been a lot of media attention around it. People have been getting exposed to drones more in their personal lives. A lot of kids around the neighborhood started getting toy drones as holiday gifts. Jim the superintendent is getting exposed to drones through his son Jimmy Jr who is flying every weekend. I think the most important thing that has happened over the last year is these contractors are all starting to open up to each other and discuss how they are using drones in their work. There is no better endorsement for the technology than hearing about it from trusted authorities and industry peers.

**CEOCFO: *How does a company decide what the drone should be looking at?***

**Mr. Zhang:** Our software includes a flight planning app used on site called Plan IQ, similar to Google Maps. Users choose the area they want to capture and how high they want to fly. Then everything else happens automatically and it draws up its own flight plans. It knows where to go, you hit the start button and it will take off and do its own flying. I will capture the data during the flight and then it just comes back and lands where it took off.

**CEOCFO: *How important is the angle at which something is looked at?***

**Mr. Zhang:** The beauty is that our software actually creates a 3D model of the whole job, down to a tenth of a foot, survey grade accuracy. Once the digital model is created, users can go on their computer and zoom in and out or turn it to see from any angle they want.

**CEOCFO: *You recently announced a suite of new drone mapping features. Would you tell us about that?***

**Mr. Zhang:** The most exciting features are the new Haul Road and Slope Analysis. On large earth moving projects, dump tracks consume dozens of gallons of fuel a minute to move hundreds of tons at a time. A slight degree difference on a job site road slope impacts fuel efficiency and costs by hundreds of thousands of dollars a year, per vehicle. It's also a safety issue, where detecting dangerously steep slopes can prevent vehicle accidents and improve safety and productivity. All our best product ideas come from our customers, and this was no exception. All public contracts are won by the lowest bid, so anything contractors can do to complete projects more efficiently goes directly into their own profit margins. Our customers are excited to reduce their fuel costs and increase their safety with insights that they've always wanted but that they've never had access to.

**CEOCFO: *What is the business model?***

**Mr. Zhang:** Most other drone mapping companies only provide one aspect of the process. If something goes wrong, all the vendors blame each other, and the customers are stuck without a working solution. We handle every aspect of the process from the drone and flight planning, to the data processing and storage, to the FAA regulations, operations and tech support. Customers value having one central trusted partner with responsibility for the entire integrated process.

Microsoft Office, Pandora, and Netflix are all examples of subscription-based businesses. We offer our technology and services with that same subscription style model. It's better for our customers because they don't have to commit to a big purchase up front. The model puts the responsibility squarely on our shoulders to take the best possible care of our user's needs and keep them renewing. We are happy to minimize their financial risk in trying us, so we can prove our value to new customers.

**CEOCFO: *Why not have a drone just continuously fly over the site and collect data?***

**Mr. Zhang:** The biggest limiting factor right now is battery life. The drones consume energy quickly, and the larger the batteries you equip them with, the heavier they are, and more energy they require to keep in the sky. Given that, you don't see many drones that can stay in the air longer than 20-30 minutes. Once the technology is in a place where they can be airborne for eight hours at a time, I absolutely think you will see drones airborne all day for continuous updates. That said, most job sites have historically only had access to mapping updates once a quarter or year. So being able to fly and see changes daily offers a transformative improvement to responsive project management compared to anything that's ever been available before.

**CEOCFO: You mentioned people speaking to one another to spread the word. How else are you reaching out and how would a company find you if they were looking?**

**Mr. Zhang:** There's a good chance that you've seen Identified Technologies if you've looked for drone mapping information online or in magazines. We've been featured in around 200 articles to date and are very proud to add CEOCFO to that list! Beyond PR, people are coming to our website every day to watch webinars, read case studies, and request demos. Customer referrals are absolutely huge for us. It's one thing for you to see a piece of content that says how great we are, but the best marketing will always be our happy customers telling their trusted contacts and professional associates about how glad they are that they chose Identified Technologies. Our customers really act as champions for us, both by creating public awareness and by suggesting valuable new features so we can always be improving our solution.

**CEOCFO: Are there certain types of company sizes and industries that are more receptive?**

**Mr. Zhang:** If you're doing a small excavation project digging a trench through an acre of land, you can eyeball it and have a pretty good idea of where the equipment, staff, and project progress are. On a 50 or 500-acre job site, this becomes virtually impossible to track without this technology. The bigger and more complex the construction project, the more value we bring. We've gotten the most demand from heavy civil contractors moving hundreds of thousands or millions of cubic yards of earth for highways and bridges and doing site preparation for large horizontal construction projects. If you move earth, we'll help you do it faster, cheaper, and more safely.

**CEOCFO: What surprised you through the process?**

**Mr. Zhang:** The biggest thing you have on your side as a young company is speed. You can make decisions and act more quickly than the larger organizations that have more resources but are also too tied up in red tape to keep up. I would rather act with 80% of the information five times as quickly than take five times as long with 95% of the information. Likewise, there's pressure on large companies to expand into new markets and try to do everything. We pride ourselves on keeping a laser focus on solving the very specific needs of a very specific customer, better than anyone else on the planet.

**CEOCFO: When you are speaking with a prospective client do they understand easily both the technology and the ROI?**

**Mr. Zhang:** The biggest surprise is that the drone is the least important part of the job. The real magic happens after the data is gathered when our technology analyzes it and extracts the key insights. From an ROI perspective, many of these jobs are 10 million to over 100 million dollars, so the value in operating more efficiently is monumental. We've had multiple customers tell us that their annual subscription paid for itself in the very first week of use.

**CEOCFO: What are the different solutions that a company would use?**

**Mr. Zhang:** You can subscribe to the all-in-one solution we offer, or you can go purchase your own software, hardware, drones, and hire your own internal drone law and operations experts. Some people might want to design their own word processing software in house, but most people have better things to do, and would rather just get Microsoft Word. We often see the people who planned on trying to do it themselves come back to us after they attempted it, now ready for our integrated drone mapping solution.

**CEOCFO: Why pay attention to Identified Technologies?**

**Mr. Zhang:** We offer the leading all-in-one drone mapping solution, with everything you need including hardware, software, legal, operations, and support, to digitize job sites at the push of a button. We empower construction managers to automatically track what happens in the real world and create a digital recreation of it that can be stored, studied, and shared. Digitized job sites give construction leaders the information they need to make fast, informed decisions for safer, more profitable projects.

