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EDITED TRANSCRIPT
LLL.N - L3 Technologies Inc Investor Conference

EVENT DATE/TIME: DECEMBER 05, 2017 / 1:30PM GMT
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PRESENTATION

Heidi Rolande Wood - L3 Technologies, Inc. - Corporate SVP of Strategy

Good morning, everyone, and welcome to L3’s 2017 Investor Conference. Thank you so much for joining us today. I am Heidi Wood, Senior Vice President and Chief Strategy Officer of L3 Technologies.

Before we get started, I'd like to share some brief announcements. We're webcasting today's event in listen-only mode and extend a warm welcome to those who join us online. Listeners will be able to access the broadcast over the Internet at www.L3T.com. Presentation materials will be available live and archived on the company's website.

I'd like to remind you that today's presentation includes forward-looking statements. Forward-looking statements are subject to future events and uncertainties that could cause our actual results to differ materially from those statements. All forward-looking statements should be considered in conjunction with the cautionary statements on this slide and the risk factors included in our filings with the SEC. As a reminder to those who are in the room this morning, please refrain from taking photos of the slides on the screen.
Before I turn the show over to Chris, let me mention that we will have time for questions at the end of today’s program. We will have roving microphones in the audience, so please raise your hand and a microphone will be brought to you. And for the benefit of listeners on the webcast, please wait for a microphone before proceeding with your question, so please just speak directly into it.

And also one brief financial housekeeping item: all the numbers you see today will reflect the move of Vertex to discontinued operations.

Now I’d like to welcome Chris to the podium.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Okay. Well, Good morning, and thank you, Heidi. Let me also welcome everybody to our Investor Conference. I know it’s a busy time of the year. It’s great to see so many familiar faces in the audience and a couple of new faces.

Let me first make a couple of introductions. We have several members of our Board of Directors with us today, and I can ask them to stand and face the audience. We have Bob Millard, Chairman of MIT. He’s our lead director and Chairman of our Compensation Committee. Lew Kramer, Lew is a retired Ernst & Young partner. Mike Strianese and I used to work for Lew back in the 80s. I was a low-level guy, about 19 levels below Lew. He would send a memo and tell us how to do better audits and he’s the Chairman of our Audit Committee. Tom Corcoran, Tom is a retired executive from both General Electric and Lockheed Martin. Vince Pagano, a retired partner from Simpson Thacher and also Chairman of our Nominating and Corporate Governance Committee. And Claude from MIT as well, a longtime member. So thanks for joining us, Claude. And, of course, a gentleman who needs no introduction, but I will nonetheless because he actually likes it, Mike Strianese, our CEO and Chairman of the Board, who is also with us.

So in the last year since we’ve been together, a lot has changed. If we go back to early 2017, we reorganized the corporation into 4 segments from 3, so we could get closer to our customers and better align our strategies. You will hear from all 4 group presidents today as of January 1, 3 of the 4 will have been in their jobs less than a year. All internal promotions and I think you’ll be impressed with their strategies, their passion and their energy.

So, I guess we went through these.

I have titled my presentation, L3 Technologies 3.0, which is really a way to parallel the advances in the web. And if you recall, web 1.0, it was just a bunch of static websites that were unable to connect to each other. Web 2.0 kind of became the hot thing and it was much more dynamic and allowed for hosted services, so some of the social media things that we read and hear about. And now you hear a lot about Web 3.0, which is all about connected intelligence. So what that basically means is you can take data anywhere in the world, anywhere it resides and present it to people who need it. And that’s the parallel to L3 Technologies and our L3T 3.0. We’re going to be able to take our capabilities wherever they reside, whether it’s people or technology, bundle them together and provide them to our customers around the world in a timely, innovative, creative and cost affordable manner. And that’s what you’re going to hear from me and rest of the team over the next several hours.

So let me try to describe L3 Technologies. It’s been a couple of years. A lot of people have asked about it, and I can tell you, it is unique and different. And sometimes that’s a good thing and sometimes it’s a bad thing, but I can assure you it’s a very good thing. Mike and I and the team just spent the last couple of days as some of you in the audience were out in California at the Reagan -- Ronald Reagan National Defense Forum. We’ve heard from customers, members of Congress and there is clearly a desire by our customers for speed. They want systems quicker before the technologies become obsolete and to be able to quickly adapt to evolving [threats]. And you will hear today how we think our unique business model and culture will allow us to meet those growing needs.

So we talk about being a high tech, the only high tech innovative aerospace and defense company as a collection of entrepreneurs. And we take advantage of the small company attributes such as innovation and agility and the benefits of being a $10-plus billion company relative to leverage and scale, and that’s the secret sauce that I’ve inherited and it’s my job to continue to keep that secret sauce through our competitive advantage.
We're going to talk a lot about a multistep process to create shareholder value. Near the end, I will talk about our '18 plan, our midterm plan and our long-term plan, but it starts with the integration, we're going to be doing more and more integration in the year ahead, and you'll hear from the group presidents what we have in mind and integration comes in different forms and flavors. We're talking about actual physical consolidation of the facilities in some cases. In other cases, we're talking about optimizing the backroom operations or changing the management structure. And the goal here is synergies and I'm a big believer in synergies, both top line synergies -- we have some real-life examples. Todd may tell you about a large OEM where we were able to get a large order as a result of bundling together multiple divisions with a single point-of-contact and go to market as one L3 avionics company and getting a multi-$100 million order. And then, of course, the cost synergies is another way to create value and we'll be focused on that.

We're increasing our R&D. As always, I think we're one of the few companies that look longer term and increase our R&D as a percentage of revenue and in actual dollars and this year's -- Ralph will show you, it will be over 3% for 2017 and maybe about 3.1% in 2018. We'll talk more about that, but we are investing in the future.

You may have heard us talk about L365 Continuous Improvement. This is a corporate-wide initiative and it's a framework for continuous improvement. You've heard of Kaizen events and Lean Manufacturing. It's really all-encompassing and not only does it apply to the manufacturing and production of our products, it applies to every function. And in early October, the corporate staff actually spent a full day on Continuous Improvement training, led a little bit by myself and our continuous training experts. I just kicked them all and they did all the work. And after a full day, I think, everybody was thoroughly impressed with the methodology and the potential, not only for our divisions and our segments, but for our headquarter functions and how it can better optimize operations. So the L365 Continuous Improvement -- the 365 represents the number of days in the year because each and every day, we're going to get better: Christmas, Saturdays, Sundays and, yes, in a couple of years, it will be 366 and then we will go back to 365. So not one day off thinking about how we can get better and raise the bar.

Sharpening accountability. I think as you men and women know the industry well, I can't think of another company in our history, led initially by Frank Lanza and then, Mike, and then myself, that have leaders that will hold their teams accountable than we are. And Mike did a great job with that regard and I can assure you, I will pick up where he left off. We're working, Ralph and I, on some proposals for our compensation committee to adjust our annual compensation relative to our annual bonuses, so we will make a proposal to our board to better align some of the things we're talking about today to the compensation schemes. And then in 2019, we're already thinking of a few things that we might adjust for the longer-term [L3] plans. And again, minor tweaks, I'm not going to put the board on the spot today, but they know what's coming forward and I think that will play well for all that are involved.

And then, I've talked a lot about leadership internally. And this is an interesting story, at least, I think it is. We wanted -- back in September, to pull together some L3 leadership excellence expectations. What are the leadership traits or competencies that people want me to have, my team to have, the current and future leaders of L3? So we talked to people that do this for a living and they all wanted millions of dollars, and 6 months, and 9 months, and 12 months. So as you can imagine we said forget that. We got the team together and in a matter of 30 days, the executive team came out with these attributes that we're going to hold each other accountable for. We have training with regards to these, that will apply to annual performance reviews, 360 reviews. And as I look to promote people in the future, we're going to look at these attributes to measure our leaders are meeting the vision that we have. And this is proprietary.

So I will give you a couple of examples because we did share it with a firm that ended up helping us, much to their surprise. They couldn't believe we got it done in 30 days. They wanted to take it and share it with other companies, which I said no way. Because these are unique, and they are actually applicable to our business model.

So an example is courage. And I can assure you, if you look at the Fortune 500 and all their HR materials, nobody says they want leaders that are courageous. Most of it is just motherhood and apple pie. We want people that are willing to speak up, challenge the status quo and articulate their opinion. Heidi Wood is our poster child for this as you can imagine. But we also want leaders who are willing to listen to their staff and have the courage to get those different opinions.

Entrepreneurship is one of those. I can assure you nobody else has entrepreneurship as a leadership attribute and there are ways to measure these as you can imagine. So that's one.
I'll say customer insight. I'm only going to give you 3 or 4 because I don't want to give you all 12. Customer insight, I think is important and that's going beyond just the relationship. It's truly understanding what your customers want and how we can better align the business.

And then teamwork is -- we all have favorites. Teamwork is something I believe in. I want people that are going to work together as a team for the betterment of the company, to make our place a good work environment for the employees, to make sure our customers get what they need and to make sure our shareholders get the returns that they deserve.

We'll also layout with Ralph, the financial focus. And, again, world-class free cash flow generation. I think we've been over 100% conversation rate for a while. We'll continue with that, I'll tell you about that -- Ralph will for 2020, high-quality earnings.

And again, I think one of our core competencies is mergers and acquisitions. I think, both Mike and I and Ralph -- very clear that we're going to be acquisitive, we've demonstrated that over the last couple of years and that will continue. You can see the financial metrics for 2018 on the chart. Again, this is without Vertex. So we're looking at 5% growth, 4% organic, with 5% top line growth year-over-year and a respectable increase in the margins, over 11%. And you can see our portfolio basically 70% DoD U.S. government and 30% Commercial and International.

So just a couple comments on the markets. I think, for the first time in a long time, all of our markets and we talk about them in 3 broad categories are growing. So we have the DoD budget, which has been well-publicized and is still in process. We're happy to take some Q&A on that, if you would like. But this is a forecast we got from a third-party. There's no doubt in my mind that the DoD budget will be increasing. It's just a matter of how much. We have the continuing resolution dialogue, and we also have the sequestration caps. But it is going to be growing and these probably won't be the actual numbers, but directionally that's a good thing.

Internationally, international defense budgets, instead of just putting up some huge multitrillion irrelevant number, we actually found the 10 countries that we've targeted for international growth. And we have strategies for each country. In many cases, we have a presence or will have a presence to better accelerate our growth. So when you look at the 10 countries, as you can imagine, there's a couple in the Mid-East, like the UAE and Saudi; there's things in the Far East like Japan and Singapore, Australia, Canada. I'm not going to tell you all 10, although I might have just done so. And then, we took to those budgets and we looked at what's addressable for L3 based on our capabilities. So you see a lot in there for ISR; we're a world-class ISR provider. And you can actually see these add up to a couple hundred billion dollars, growing a few percent. So the nice thing is, we do believe that there is potential for international growth based on the countries that we've identified and that part of the budget that we're going to go after.

We're going to do that in a very aggressive fashion. I was recently in Japan and Taiwan and Singapore with my team a couple of weeks ago. And in early '18, we'll be going to the Mid-East, building relationships, reestablishing relationships. So I can tell you based on the trip to Asia, which happened to coincide with our President's visit, there is a lot of concern, and I think, some interesting opportunities. These countries, again, do not have large budgets. They want things quickly; they want things that are interoperable; and in some cases, they want to take existing platforms and make them better and that's in our sweet spot.

And then in Commercial, we're really in the Commercial Aviation market through pilot training and I'll ask Todd to give you some numbers, but there's definitely a looming pilot training shortage as you know, and that provides us an opportunity. We've been rather acquisitive in that area.

And then airport security, the number of passengers traveling is increasing and we're focused on increasing the security at the airport, while making the passenger experience much more enjoyable. I don't know how we're going to do that, but it can't be any worse than it is. So we made some acquisitions there. Again, we're taking a holistic approach, a systems approach in solving that problem. Bottom line, the markets we are in, at this point in time, are attractive and they're growing, which is going to allow us to do so.

I mentioned we reorganized at the beginning of the year. We now have the 4 segments. Just to comment on each, these are the numbers. I'll show you the numbers; Ralph will show you the numbers. So you can see the trend -- 3 out of 4 are growing. Aerospace is a slight shrinkage. Heidi said to say flattish because of the Wall Street people will think that is flat, but it's flattish, which appears to mean, it's shrinking.
So on electronics, you'll hear from Todd. I think, we're being most aggressive here on the cost-cutting, a big part of that business is commercial, so you get the benefit of keeping those savings. And aerospace, it's rebuilding here to be honest. We took the decision quite seriously on Vertex. It's a good solid business. It doesn't fit with us strategically. Mike and I took it to the board, they approved the divestiture. Ralph will give you an update as to where that stands. The smaller business, Mark and his team are focused on what they've always done best and this is the year that we're going to make sure we have the right processes, the right people in place and put in a strategy so that we can return to growth, and we think we have a plan to do that by the end of the decade. So Mark will tell you more about that, but this is a rebuilding year for aerospace. We'll all be watching it closely as I'm sure you will.

Communication Systems, we just announced a new leader, you'll hear from Andy Ivers. And when we were at the Reagan forum, there was a lot of talk about warfare and how it's evolving from a war of attrition to a war of cognition and that's the future of warfare. And by cognition, you have to be able to connect. You have to be able to share, and you have to have systems that learn because you kind of get [sent through] the artificial intelligence.

I'm not here to say that we have all the pieces to the puzzle, but I guarantee we have a big piece in Communication Systems with the things they're doing in secured communications -- low probability of intercept; low probability of detection. And I think we're going to be uniquely positioned and you'll hear a little bit about that.

And in Sensor Systems, we talked at the last earnings call about how we're taking -- I think close to $30 million of additional monies to invest in R&D because the only way you grow is to invest. We've identified some places where we're going to put money. We actually have a couple of early wins. Jeff will tell you a little bit about that. I look at it as a portfolio, we manage the portfolio, the board oversees it as a portfolio. We have lots of things going on; it's not one-size-fits-all. And I think, in totality, if we put those pieces together, we're going to have a pretty good run.

So everybody gives presentations and everybody has a favorite chart. So this is my favorite chart. So I saw a couple of you guys flinch out there who are now in the financial world, because you probably got thrown out of chemistry in high school. Yes, this kind of, sort of, looks like the periodic table of the elements because it is -- except this is the L3 version. And this is the way to show you not only do we have these 4 segments, these in fact represent the divisions that are within L3. And if you see kind of in the large blue box at the top, just like the periodic table, we layout -- well, we don't have different atomic weights and such, but nonetheless, we layout the name of the entity, which segment it belongs to, and what is its core capability. And this is more illustrative, but of course, a factor in it. At the bottom, we list out our 18 core competencies. Number 1 is ISR, as an example. I think there's one that looks like number 7 is Power. You could guess the rest. But nonetheless, at the end of my presentation, I'm going to show you how this all works. And when you combine elements you get a compound. That's how -- when I got thrown out of chemistry, that's where I left it. So just like that, in L3, when we combine these elements, which have value individually, you're able to combine and form subsystems, systems, and ultimately platforms, which will allow us, as I said earlier, to move up the value chain, create more value for our customers and more value for shareholders. So anyway, I thought this was kind of cool, and you'll see it again at the end of the pitch. And we'll have some fun with that.

This was a close second and this is something that you can actually use and plot all the other companies you're interested in and this is a way to, again, try to emphasize what's unique and different about L3, and it's our organizational philosophy, it's our entrepreneurial spirit and it's a culture that's been built over 20 years that I have the honor and pleasure to inherit and continue. And at the corporate level, we determine how best to generate value. Mike, myself, Ralph, Heidi and others are looking at the long-term strategies to generate value, ultimately gets down to capital deployment. I'll obviously talk about that at the end of the presentation, but that is a corporate focus.

At the operating units, we have just a couple -- we have lots of metrics, and we're getting more, but these were things I thought were important. And the first one is process. You have entities that are bureaucratic and you have those that are value-added. We kind of gauge ourselves as value-added.

And I think I have time to tell you a story. We had the leadership team together in October, a couple hundred of the top leaders, and share with them, what I believe are the 4 stages in an enterprise's life. I think I called them stages 1 through 4, but the interesting thing is you don't actually want to get to number 4. So the first stage is entrepreneurial and that's where we started 20 years ago. The entrepreneur finds an entity, it grows, it matures, and at some point, the entrepreneur is handed off to the Phase 2 leadership team. And that's really one of professional management. When you get the synergies of being professionally managed, you get the appropriate processes in place. You develop strategies. And that's where
L3, in my opinion, and the team’s opinion. The third phase is bureaucratic or bureaucracy. You never want to get to Phase 3, but once you’re there, you’re just a short step away from Phase 4, which is irrelevant. You go out of business, you’re bankrupt or you’re just kind of out there and nobody cares.

So when I said that I was obviously honored to have the ability to be the third CBO in our 21-year history, Mike is handing me a Phase 2 entity and whoever replaces me at some point in the future, all I want them to say is, “Chris, you’ve given me a Phase 2 enterprise.” Because you can never go back.

So the beauty is, to be candid, if not all, of our competitors are in Phase 3. They’re big, they’re bureaucratic. We’re not, and that is what I’m excited about most because we’re agile, and we can make quick decisions, and we can position ourselves for growth.

On innovation, we have a top-down and a bottom-up approach. I’m going to ask Jeff to talk a little bit about some of the innovation sprints we’re doing, the concepts where we’re doing things literally in a week, (sales fast) consistent with the methodology the DoD is trying to do and I think we’re seeing some benefits.

And then relative to the workforce, you want a workforce that’s engaged and inspired. We’re going to be doing an employee survey as a way to gauge where we are, so we can measure and get better. But I think this culture and this organizational structure is allowing employees to be more inspired rather than managed. And we talk a lot about L3 is a place to have a career, not a job. And there’s a big difference between having a career where you feel like you’re adding value, where you’re respected, and you can spend your whole career versus jumping from job to job. And these are just a few ways to try to visualize rather than try and articulate as to how we’re unique and different. And like I said, you can use this and put other companies on the dial and see which one you think is going to be most successful. This is where we peg ourselves at this point in time.

Again, the focus on how we balance the benefits of being a small company. There’s clearly strengths that they have. The decision-making I think is the most important. We have a delegation of authority, people are empowered, and they make their decisions at the lowest level possible based on what the item is. And then we have the leverage and scale of being a large company. We have the ability to get access to key customers. We are able to attract talent. So at the division level, I tell the men and women that are running the divisions, I want them to wake up every day and think of something that they can invent, sell, build and deliver on time and on budget. All this other stuff, whether it’s travel, payroll and such, don’t worry about that, we’re going to put that into a shared service organization. It’s going to work every day. I want you to focus on the customer and innovation, and that’s the balance that we work. We’re in the middle. We’re unique. And I think you’re going to see good things continue over the next years ahead.

So let me get a little more specific. I’m sure there’s a lot of interest in shareholder value. I talked about a 3-step process. We kind of have a short, mid- and long-term strategy that we’ve laid out. 2018 is really the year of continued integration. A lot of the things I talked about relative to the 365 Continuous Improvement, talent upgrades, consolidations, really accelerating the shared service. Ralph will tell you more about that. He’s leading the charge there. And what you’ll see, if we’re successful, and we will be as margin expansion has already reflected in our commitments for ’18. That’s the near-term focus. How do we get this well-run organization to even be better run and more efficient? Simultaneously, we’re planting seeds for the future. We’ve made acquisitions. Some of these are in the entrepreneurial stage, some are more technology focused. We’ll talk about the R&D investments that we’re making. All those things take a couple of years to generate revenue growth. So in the ’19 to ’21 time period, I’m looking for and expecting higher revenue from those, not only the integration, which makes us more competitive, but the investments we’re planting. And then longer term, in the 5-year period, we talk about being a non-traditional “6th Prime.” And we’ve spent a lot of time with customers over the weekend and the months leading up to this. And the recurring theme is, they’re looking for non-traditional suppliers. In the meetings that I’ve had, I’ve said, “You have to look no further. We are your non-traditional supplier.” We understand the paths, we understand the (inaudible), all the complications of doing business with the government, but you’re looking for systems quicker and that are more innovative, and they can’t wait 10, 15 years for these multibillion dollar programs. The technology that’s being used in these programs are obsolete before they even get fielded and the threats are changing quicker. So I like our approach, our vision and our desire to be the non-traditional “6th Prime.” And when that happens, we are going to have more revenues as we move up the food chain, the value chain. We’ll have more platforms in addition to our existing portfolio.
So that's kind of the 5-year big picture strategy: margins first; revenue growth second; and both third, more cash, more EBIT, more revenue is the direction we are headed.

So relative to integration, I'll just say there's a couple of things here I want to highlight. I'm not going to go through every piece -- but I'm a big believer in data and metrics, and we are continuing to invest in systems. That's going to allow us to get data quicker. We have a handful of metrics. We all have our personal favorites, which means we end up with 10 or 12. I like profit per employee, and we can get that at a division level; we can get that at a segment level; we can get it at a corporate level. We can kind of compare it to peers sometimes, but it gets a little hard to get the data. But profit per employee, I think is an interesting metric and some divisions might have 20,000 an employee and some might have 50,000, and some might have 100,000. To some degree, I really don't care what it is. I just want the next year to be higher. So there is no path. And there are no people that can say "I've got 100%. Leave me alone." I want you to get to 110% and through the continuous improvement process we're going to monitor and track the data and the metrics. We've talked about the organizational alignment. We split it into 4 segments. We're making acquisitions. We're trying to put them in the right place. It's a very dynamic place. I don't foresee any changes, but I'm always looking at it and these are the potential to move pieces as the customer changes and as the opportunities change. I think we've got things pretty much in the right place. You'll hear from the group president on that, but we're not adverse (sic) [averse] to moving things to make them even more better -- that sounds good -- better.

IT integration, we have hundreds of systems, they work well and, ultimately, we're looking to take a whole new approach here. We have a [DIO] rate in the loop who's been here a couple of years, great experience. We're looking at more common systems, simpler systems, more secure and more accessible. So we'll be migrating to some cloud technology. We're in discussions with big companies like Microsoft and SAP, and they've been impressed with our architecture and vision of the future and we're moving at an accelerated rate.

And then, of course, shared services, we've had that. We're taking a hard look at expanding it to more and more of our transactional systems, again, with the goal of reducing cost, more efficiency and more accurate data. And then in the medium- and long-term, as I said, once we're integrated, we're going to have the better machine, collaboration and innovation. You'll hear a lot about that today. I think we're doing that very, very well. And this is going to allow us to grow organically.

We're spending hundreds of millions of dollars on R&D. And we have a top-down approach, a bottom-up approach. Some of the things we've invested in is secured communications. We're also -- have been pretty aggressive in the unmanned, undersea vehicles, both through acquisition and IRAD. We're looking at next-generation sensors. These are sensors that are more sensitive. They use less power and I think they will be a game changer. We're looking at miniaturization, especially on the signal intelligence front. Of course, we all have our checkpoint. We talk a lot about the TSA or the airport security and you've heard me say before, call your local congressman because you can keep your laptop and your liquids in your bag, but they got to buy the machines to put in the airport. We're doing a fair amount with prognostic logistics. And, of course, autonomy, leveraging some interesting commercial technology, just to give you a flavor of some of the R&D that we're spending. We're moving into the growth phase. We're always looking at our business development processes and talent. We've hired some people over the last year at the segment level and we'll continue to look for new talent.

And M&A will be a focus and continue to be a focus. And you've heard me talk before -- it starts with strategy. What is the strategic rationale for buying this entity? Operationally, what are we going to do with it? Do they have the same culture that we have? Are we going to integrate it? Are we going to leave it alone? And then, of course, financially I think is the easiest part because once we know makes sense strategically and operationally, we look through the various metrics and determine what a fair value is for the business.

Sticking with almost numbers -- but we decided to go with adjectives. We were back-and-forth last night about 10 p.m. We decided to go, I guess, with adjectives. But this is what you can expect from us over the medium- and long-term. The presidents will cover the drivers. But you're seeing pretty good -- this is top-line organic sales growth. So just to refresh your memory, 2016 and a lot of this obviously follows the budget -- was flat. This year, meaning '17, we will do 2% organic. Next year, '18, you will see -- and I said the chart for organic growth will be 4%, and then you can see the mid- to long-term objectives, being either in the middle, mid-single digits; mid- to high-single digits; or low- to mid-single digits -- those are tongue twisters -- [adds] all up, we should be able to grow and you can see some of the drivers and you'll hear from the speakers that follow me in more detail.
So that leads us -- as we're getting closer to wrapping it up here -- to capital allocation. What are we going to do with all this cash and how are we going to use it? Internal investments is where we start. Like I said, we seem to be in the 3% of R&D, 3% of revenue in R&D. We will continue with that. There is some additional investments in sensors. There is also some investment in capital equipment as we're growing in certain facilities, internal investments will continue as is. Dividends, I think we've had a run here of -- what do we have -- 12, 13 consecutive years of dividend increases. As of now, I see no reason to change that. And we will continue, given the cash flow and the outlook, with modest annual increases.

Yet, we're committed to maintaining our investment grade credit rating, but both Ralph and I were looking at the new tax bill. We've had some really interesting discussions that are somewhat conflicting on interest expense limitations. So it looks like, you could read it one way and say it won't be a big deal because up to 30% of your EBIT or EBITDA is deductible, that's fine, but there is also discussions out there that you could interpret to mean that none of your interest is deductible, in which case we'd have to look at the capital structure. But I got to imagine once everything is all settled down, we will continue with our investment grade goal. We will continue to have the appropriate amount of debt, but we will monitor that.

Share buyback. We've -- like most companies that have been active in the market -- our general philosophy going forward is to offset share creep. So that's what we're going to do which will leave the additional capital for the M&A, and I talked a little bit about that. We've been acquisitive over the last several years. Like I always do, I tell you what I got today, believe it or not, we have 28 acquisitions in the pipeline. Don't get too excited because history shows like 21 of them will go away. But we're looking at them and they're moving along. The nice thing is people continue to call us, entrepreneurs and such, because of our model, because of the culture and because of the success, and we still have many leaders on the payroll today that we have paid tens, if not hundreds of millions of dollars to, and they're still the first ones in the office every morning. So it's kind of good to see, I guess, we could close 1 or 2 before the year ends and it could be a close call. So that's all good.

Here's our history, 130 acquisitions. This is the way of showing graphically, we know what we're doing and we were acquisitive at the beginning. The market went down, the end markets declined. Appropriately, we shifted to share repurchases at the lower stock price and now over the last couple of years you can see, graphically, for '15 through '17, we've started to pick up again on the M&A, which is the dark blue.

So let me just wrap it up. Hopefully, you got the message that I and my team believe that we're a unique and different company, and I think that is to our advantage. We're going to focus on integration, collaboration and innovation in '18, and you will see the payoff first and foremost in margins, followed by revenue growth in the years out. The 5-year vision, if not sooner, but we're moving towards -- and you'll hear examples where we're starting to be viewed and perceived as the non-traditional prime, someone who can get you something more affordably, more quickly, and more adaptively. And, of course, we'll continue to be transparent relative to our earnings and the quality of those earnings and the cash flow. And our theme that we talk about with our divisions and our entities is individually, we're strong, but jointly we're superior.

So back to my favorite chart. This is the L3 element and we're going to run a quick video to show how this model is going to allow us to accelerate growth and meet our customers' needs. Thank you.

(presentation)

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Okay. Let me now introduce Todd Gautier. Todd is a President for Electronic Systems. He is a Naval Aviator, flew F-18s for about 15 years, then became a United Airlines pilot, which is not nearly as exciting as an F-18 pilot, at least back when he was with the United. And he's been with us for 15 years and continually getting promoted with more responsible positions. He's doing a great job. My pleasure to introduce Todd Gautier.

Todd W. Gautier - L-3 Communications Corporation - Head of Precision Engagement Sector

Well, it's an exciting day to be a part of L3. You probably will be able to sense that as I go through my presentation. A lot more looking forward, not much looking backwards, because the future ahead really is bright for us.
I do have the privilege of leading Electronic Systems. 10,000 partners working together focused on a very, very broad area, an unique area for L3. Not necessarily focused on one mission area or one product type. That breadth and depth of our products and our capabilities are aligned with the business units that we have. So again, it is really unique for L3.

We're arranged in 5 separate sectors today. Precision engagement systems is divided into 2 basic business areas. We recently consolidated 5 business into just 2, a weapon systems prime, called advanced systems and technology, and components business, really all the elements, the key value, elements of weapon systems, GPS, IMUs, fusing, rocket motor initiators, all those that go into weapon systems, are in our components business, which used to be 3 businesses, and now we call them defense electronic systems. It makes sense since they all sell to the same customers that we actually create one business and approach them in mass and take advantage of scale associated with that. That provides us not just a prime and a component provider, but when working together it also provides us a very vertically integrated, powerful force in the weapons prime market, allowing us to move upstream to really own a much larger share in that market going forward, and we'll talk about that in a minute.

Power and propulsion systems businesses, it really is focused on maritime power management and power distribution. We do everything on the military ships, the navy ships associated with taking power from the shaft all the way to the bridge. We manage the distribution of the power, we manage the condition of the power, and we create an integrated system on that ship, but more importantly, we integrate with other areas in L3 with ship board systems as well.

Defense training and simulation. We're a global military training company. Link Simulation & Training, the first training company in the world to have built simulators, is the foundation of this business. We've been selling simulators for well over 75 years, more military aviation simulators than any other company in the world. Link's position, not only do we build simulation devices, we have school houses where we train the aviators in their missions, on these simulation systems and maintain them. And recently through a new acquisition, we acquired Doss Aviation. We're moving into a new element of military training. It's not large today, but if you look at the pilot shortages that we have in the future, currently 2,000 aviators short in the U.S. Air Force, impacting their ability to do the mission. Doss is the only company in the United States that trains U.S. pilots how to fly airplanes. They are currently the contractor on the U.S. Air Force initial flight training course. It's basically a squadron in Colorado, where aviators live and fly with our instructors and our aircraft, teaching them how to fly aircraft, it's a phenomenal business.

Security and detection systems, primarily a global security company. We do, for the most part, aviation and critical infrastructure security. The focus recently has been on the aviation market, because of the significant growth in that market and the pressures associated with the threat out there. Two recent acquisitions in this, both Mac H and Implant Sciences, provide a growth engine, if you will. We'll talk about it a bit more in the future.

Last, commercial aviation solutions. This is the first time you heard about this, it is a new sector. We consolidated the old aviation products sector with commercial training solutions to align the businesses to our customers. In fact, if you look at the customers that were selling our avionics too, we actually have training guys in talking to the customer and 2 hours later, our avionics guys are then talking to the same customer. They're able to negotiate with us and get a great deal on both those products and in some cases, we may win one and lose the other. Now, we've combined these businesses, we created additional mass, we're driving savings out of these business, creating common operating procedures within them. But now we approach the market in a position of being able to bundle our products, very different than how our competitors have bundled avionics, if you will. Instead of bundling $3 million of these avionics and $5 million of these avionics, I'm able to, in some cases, bundle $3 million of avionics with $100 million of training systems. We can provide a very, very unique value proposition to our customers, and we've already seen some significant successes with this going forward.

Commercial aviation training solution doesn't just provide training. We build simulation systems. We build training houses, where we build the systems, put them into service, and we lease and sell training hours, 24 hours a day, 7 days a week, 365 days a year in our training devices globally. We also have an academy. In 2018, we'll be the largest flight training academy in the world, specifically focused on providing cadets that have never necessarily really flown an aircraft in their life. 18 months later they walk into the right seat of the widebody A330 or A350 with the major airlines somewhere within the world. We also trained over 1,400 pilots this year, they go straight to the airlines.

When we look at our performance, we've had another good year in 2017. We'll have another good year in 2018. 2018, we're looking at $3.25 billion in sales, associated with 6% organic growth, 13.8% operating margin. We have some KPIs we leverage in our business, and actually, we have a significant number of KPIs and some of them that are relevant today are the fact that we are winning. We continue to win and grow our business.
Our book-to-bill ratio is greater than 1.0 for the last 2 years. It will be greater than 1.0 in 2018. We are growing. We have 6% organic growth this year. We’re going to have at least 6% organic growth next year, and our goal is to exceed our expectation. Margins, we continue to grow our margins. We’ve been growing them for the last couple of years. From 2016 to 2018, we’re up 70 basis points. Investing is a critical element of growth. In 2017, about halfway through the year, I changed our investment profile in our business and increased the investments for our R&D in our business areas in electronics systems by 50% in 2017 alone. We’re able to fund that internally. That investment rate is going to be maintained going into 2018. More importantly in 2018, it’s not necessarily the dollars that we’re investing, but how we’re investing the dollars. Historically, we’ve allowed our division to prioritize their dollars of investment that they have within their plans and focus them. That does not fit so well when you are actually trying to execute towards a strategy. Some of these businesses might be in a harvest mode, some might be investing in technologies that really aren’t going to be driving growth for the corporation. It seems Chris came out with L3 3.0, it is real. Those words that he put up there, every one of them has a significant impact on our ability to be better and to exceed expectation. For me to be able to align with his expectations in that strategy, we have to do things differently. So every dollar of investment that we have, I’m controlling. I’m focusing it on areas we’re going to drive growth, drive greater growth than we historically done and allow ourselves to comply with this strategy and eventually, move up that food chain as well. So it’s a significant change from historically how we’ve been focused.

We’re also optimizing. I’ve been optimizing our businesses within my prior units for years. I consolidated eleven businesses in the past. This coming year, we’ll be consolidating 8 business units, going from 23 division down to 15 division. It is a significant undertaking. We have great experience of doing it. And more importantly, the business units are jumping on board with this, because they see the value and the capability it provides and makes us stronger going forward.

Within our customer base, we are different from the rest of L3. Like I said, we are unique. A little over 50% of our business comes from the U.S. government Department of Defense, but a very, very large chunk of it comes from commercial business as well. I like the commercial business, because it trends differently in a lot of cases than the government business and the margins are very nice. The international chunk up there, that is primarily DoD International that you can see. What you can’t see because the way the chart is aligned, in that commercial business, a significant component of that is international commercial as well. So it’s already categorized. So we are doing a significant amount of business, both internationally and commercially, which is different than the rest of the segments in L3.

You can see the sales by sector as well. The one that jumps out, the one that’s a little bit larger most is that commercial aviation solutions business. What we wanted to be able to do is, segment the commercial businesses and keep them separate, because they run differently and they do different things than what our defense businesses do. They run at a pace that is much, much faster and the processes are very, very different being successful as a commercial enterprise than a defense enterprise. And that’s why, again, we’ve aligned those businesses. Our capabilities on the right-hand side of the chart, you can see our primarily defense businesses align on the top, weapons components, weapon and prime systems, defense training and our maritime power businesses. Down at the bottom, really our commercial focus areas, security, avionics, and commercial aviation training.

When we look at the market environment, it’s another reason I get excited every day when I wake up. Every one of our market spaces that we are aligned with intentionally so, by growing into these markets and buying into these markets in a premeditated manner, they’re all growing. And many of them are growing very, very strongly to a point where we’re having some capacity issues that we’re overcoming with investment. Weapon systems market, the bins that our military forces have are low. We’re getting calls weekly asking if we can increase production volumes and capacity. New awards or new opportunities are coming out that we weren’t expecting for 3 or 4 years out, where actually new acquisitions are coming online. So the demand for the component business is increasing, and it’s been strong in 2017, and we see that going forward for some time. And it’s really driven by the ongoing operations in theater where they are dropping and using a significant amount of ordnance, most importantly, ordnance associated with the systems that we actually develop.

A2AD, anti-access/area denial, you’ve heard it before, it is real, it is the government requirement and need to ensure that we maintain our war fighter advantage against near-peer threats out there. That advantage we saw at the Reagan Defense Summit that we were out at this last weekend. That advantage is compressing. We don’t have the advantage we did in the past, and they’re looking for new weapon systems, new capabilities, new technologies that can provide increased lethality while at the same time growing that advantage back so that we don’t need to worry necessarily as much as we do about the near-peer threats.
Defense training, we're seeing growth there as well. There are headwinds. The market has evolved. The primes are all building their own internal training companies and trying to hold the data for their systems and in some ways restricting competition. We're trying to prevent that from occurring. Small businesses are getting into the training business, because software and computational systems are much, much more accessible to be able to train and create simulations in that environment. But more importantly, the pilot shortages we see in commercial aviation are in the military as well. But in the military, it's an urgent threat, because it impacts our readiness. And I think you've heard, a lot of articles out there where U.S. Air Force is significantly impacted from their ability to field pilots and fly their aircraft because of the fighter pilot shortages.

One of the things that we're hearing more and more often and there was a program that was going to be released this year with United States Navy, but it got put off a year or 2, is, the military is looking at outsourcing their primary flight training requirement. That is a significant opportunity, and it's a big change in the way that historically we've trained our pilots in the military. I think it's fantastic. It allows industry to not only lower the cost associated with training aircrew, maintaining the same quality, but also allow military pilots to stop worrying about being instructors and get back into the seats of the aircraft and fill some of those vacancies going forward. It is the reason why we searched out, targeted and acquired Doss Aviation this year. We are getting ahead of the market. This requirement will come out, and we'll be the only defense company, the only company, to have past performance training U.S. Military aircrews to train and fly U.S. military aircraft. We are positioned to be the leader in that market space as it evolves.

Power management and distribution, it's growing as well, driven primarily by the growth in shipbuilding, both domestically and internationally, as well we're seeing new energy requirements, new power requirements onboard ships associated with new weapon systems, whether they are the electromagnetic rail gun or directed energy weapon systems, we're seeing that the design requirements for next-generation ships, and even overhauls are going to require very different type of power and a significantly larger amount of power to drive the ships and the systems in the future. We're investing a significant amount of money to position ourselves to be able to deliver that capability. We have a very, very good relationships with our customers and their long-term relationships that we expect to continue going forward.

If you look at our commercial airline training market, we talked about that as well. Pilot shortages are real, the airlines are feeling them. Last year or the year before, an airline went bankrupt, because they didn't have enough pilots to fly their routes. The major airlines are taking the pilots that are flying the regionals, the regionals are having challenges in getting pilots into their cockpits. They need 637,000 pilots for the next 20 years. If you take every military aviator in the world and look at the number of training seats that train commercial airlines pilots, I don't see how you're going to get there. Something is going to have to change. Capacity is going to have to increase, the market is going to need to evolve to be able to fill the requirements for aviators that are necessary going forward. Amazingly, we've uniquely positioned ourselves in that market space to grow along with that market as we go forward. Fleet expansions are ongoing. Not only are there pilot shortages, but we're growing the fleet. The fleet's going to expand at a rate that just exacerbates the problems we had associated with pilot shortages to begin with. In addition, outsourcing is becoming real as well in the airlines, just like we're seeing it emerge in the military. The airlines trying to compete globally with very low cost and low-cost airlines, not wanting to have to spend the capital on training, needing pilots to fly revenue routes and not be instructors. We have major airlines globally coming to us, asking about how could they outsource their training they've held internally for decades. It is a fantastic opportunity for us. It allows us to expand into new a market that's been created, while at the same time, it provides a benefit to the airline by lowering their cost and reducing the impact of pilot shortages that they're having on their business today, and that's a great opportunity. We'll probably see some of these awards coming out within the next 12 months, and it will be a unique change in that actual market space.

Avionics is growing, driven by the same dynamics affecting the commercial aviation training market. Fleet expansions are going on and are building a bunch of new airports. We're going to see the demand for avionics to support that fleet go forward.

Airport security, again, amazingly driven by the same dynamics that are driving training and avionics. More importantly, in compounding the issue of passenger growth and the airline growth, the threat. Lot of people don't get to hear much about the threat, but the threat is continuously evolving. It is real. They are looking for ways to do harm to the airline industry. And it's our job, it's our government's job, it's the world's regulatory body's job to ensure that they can't do that. We need new technologies. Not only do we need new technologies, but we need to become software defined in our capabilities, so as these threats evolve in an ever accelerating rate, we can adapt our systems so that we can find those threats, very, very quickly reducing the cost of the infrastructure so they don't have to keep buying new system all the time.
If you look at our strategic focus, we’re focused in all of our business areas, but 3 really do stand out. Commercial aviation solution, unprecedented growth in commercial aviation, pilot shortage. We are making significant investments in our ability to grow in that market space. And you can see a picture on the right-hand side, that’s the new London training and manufacturing center, that’s being built near Gatwick Airport. That picture was taken a couple of days ago. I get on the computer and look at it on a webcam every day and make sure that the steel continues to build up. We’re currently beyond capacity of our manufacturing capability for our commercial simulators. We are manufacturing these devices in 3 separate locations in our London facility. I need to get them co-located to drive additional efficiencies within the business. This manufacturing center is going to allow that. In addition, we’re building a brand-new training center in London. A significant number of bays of volumes to expand a very, very solid business model providing training, leasing these devices 24/7, 365 to our airline customers globally, they will be using our systems.

Avionics, not only have we consolidated avionics into this commercial aviation solutions business, we’re actually consolidating businesses within avionics. We’re not just calling them one new division. I’m actually doing physical consolidation, shutting down facilities, moving products into a new manufacturing facility and we’re going to reap the benefits of this going forward. So again, phenomenal opportunity to be able to generate millions and millions of dollars of opportunity to use as EBIT, as further investment or in a lot of cases drive myself down in my cost that allows me to become much, much more competitive in the environment going forward, allowing us to grow in an accelerated manner.

Another aspect associated with this is bundling. We talked about it a little bit before. I get to not only take my training systems to market with one customer, but show up at the same door with my avionics systems and in many cases, allowed the world environment airlines control the security systems. So we’re actually showing up selling security, avionics and our training systems, solving their biggest hardest problems that they’re worried about in airlines today.

Airport security, we have new products, we’ve aligned those businesses, we’ve acquired to fill some key gap areas that we had within our technologies, and the key there is MacDonald Humfrey. We have been a product provider in the past. Today, we’re moving into being an integrated solutions provider, and you’re going to see the market’s going to go that way. We’re leading the market. Mac H is a systems engineering and systems integrator firm. That’s what they do. They integrate the single components together and work as an optimized solution. It’s one reason they work, build a automobile manufacturing production line. They understand process and efficiency. We’re going to see today that you go to an airport and they have a carry-on baggage scanner that you get in line for and that baggage scanner can do 250 passengers per hour. But they smartly put in front of it a divesting station where you throw your bags on the rail and throw them in, they can do 50 passengers per hour. And then you have a gantry that people walk through that they’re limiting it to around 50 passengers per hour. They have a 250 passengers per hour capability. Yet, they’re artificially driving it down, ruining passenger expectations and the passenger experience, airlines are not happy that their passengers are not in there buying products and spending money on the other side of the airport and security could be better. With the integrated solution, we optimize everything in there to get that 250 passengers per hour throughput, which is what the system should be designed for. You’re going to get better security and significantly enhanced passenger experience. The passengers will be happier. It would be so nice if you walk to an airport, you’ll walk and there is not a line, you throw your bags on the rail, they go through, you walk through and you’re through. That’s the way it can be. And the key is getting the regulatory bodies and airlines and the companies like us working together to solve those problems. They are very solvable.

A2AD, it is real. It was a large focus of what we heard out at the Reagan Defense Summit this last weekend, again, lethality and maintaining a superior technological advantage for our war fighters. We have very disruptive capabilities in this market space, and I cannot over emphasize that. We have programs and tech demonstrations, programs in EMD and programs in production. My goal is to get these programs from where they are in their current phase of development into full rate production. These are, in many cases, Billion Dollar programs, and our goals are to get that to production, which is what all the hard work and investment has been about in the past. We have had significant strategic wins this year. We cannot talk about those programs or what they are, but all of the programs that we targeted, we won this year. We have focused investment. The largest piece of our new investments and where that increased investment was brought forward in 2017, all went to this area. This is setting us up for significant mid- to long-term growth. The businesses are aligned. Like I said earlier, we consolidated the 5 businesses into 2, so we could truly focus on our customer set and our core capabilities and competencies. Bottom line, we’re in the right markets, we have the right technologies, and we will grow.

Growth drivers. You know about the campaigns that we have there. Every one of those is in the heart of the key growth area. We’re expanding our offerings across the board, not only generating new systems and new products in every one of our market areas, fielding those today as well as fielding new ones the rest of this year. We’re also going to market in a very, very different way. And going to market can be just as disruptive as...
showing up with a new technology and a new product. In many cases, we’re showing up with a service, but historically, everyone we’re competing with is selling a product. We did that in the training systems business where we weren’t making what we wanted to make with our training systems when we were selling them, and I needed to get a lot of cost out of it, so we started selling services. It was a fantastic opportunity and business model that customers have responded. Matter of fact, the entire market is going that way. We’re also moving forward with selling solution. We went from selling component in weapon systems to moving ourselves into the prime market. It is a very premeditated effort. It allows us to do both and those solutions allow us to create pull through as well as within our own components.

We’re also going to market in bundling. We’re not just having 3 L3 people show up to the customer. We’re aligning all of that, which Chris is driving from his L3 Technology, 3.0. We’re driving alignment throughout the organization, from the corporate strategy, all the way down to how we do business when we go sell. It is allowing a unique value proposition that our customers are actually responding to. Increased capacity is critical. We are limited on that capacity in many cases in my fusing business and our training manufacturing. The great thing is, we saw this coming, we’ve been able to leverage the L365 continuous process improvement to find additional space in our factories, to find additional locations, to be able to change our process, do not allow it to impact us and being able to deliver products to our customers. But we are investing in capacity at both in the fusing market and in the training market going forward. And it will be here in the end of 2018.

The enablers. I cannot underemphasize the criticality of leadership and strategy. I think, we have new leaders in every one of my sectors, both finance and P&L. We’re holding the leadership to a much, much higher standard. Not only do they have to be experts in operating, they have to be experts in leading their people, serving their people, creating an optimized environment, allowing us to be successful. The leaders have gone from directing to being a part of the team and being servant-leaders allowing us to be successful. Executing a strategy with much, much more detail, it’s coming from L3 3.0 and the details you got to see, aligning all the way down through the businesses. The entire corporation is marching the same way, pulling on the oars at the exact same time and it is a significant advantage for our corporation going forward.

If you look at the future, talent management’s critical. We’re growing. We need people. We have 10,000 employees today. We’re growing without expanding our population base because we’re doing efficiencies. But one point we’re going to get very, very efficient with regards to our manpower, and then we’re going to need to look forward to filling those gaps and managing people’s careers so they stay with L3. Alignment is critical. We’re going to continue to align our businesses. You saw the periodic table, things on there have already changed. We are moving faster in many cases than the ability for the graphics artist to be able to keep up with this, as we evolve this corporation and optimize it going forward. R&D is going to continue to be focused, it’s going to be at an industry-leading average. We’re going to innovate and we’re going to deliver new products supporting our growth. Customer relationships are critical. We all understand how critical the customers are, but more so than I think anybody can realize they can impact our ability in the commercial and the international world. Chris Kubasik, I called him up one day, I had a meeting with a very senior leadership team overseas. I needed him to come, so I found out that the CEO of this corporation was going to be there, then it would have been appropriate. Chris said, “I’m busy, Todd, that’s 4 days away. I’m not sure what I can do, let me look at it.” I get a call a couple days before the meeting, “Hey, Todd, I’m going to be there, I’m not sure how, just let them know I’m coming.” Turns out he flew in an hour and half before the meeting, he went to the hotel, got changed, we picked him up on the way to meeting, talked in the car, went into the meeting, we’re supposed to meet for 45 minutes. We went there for an hour and a half, phenomenal progress in the meeting. I think the meeting secured win for us, that hopefully we’ll be hearing about here in the near future, a strategic win. We drove from the meeting to the airport, Chris got an airplane and flew back to United States. He made that trip for relationship and spent 4 hours in the country. Very, very unusual to find a cohesive leadership team that’s going to focus that much on the customer. Acquisitions, partnerships and investment. We are using our L365 continuous improvement system to generate growth capability. Whether I use it as margin, I use the tens of millions of dollars savings we’re going to generate as additional investments or I use it to drive greater cost competitiveness. We are positioning our businesses to significantly grow in the future and that focus is allowing us to be very, very premeditated in how we do it going forward.

Get-off-the-stage slide, 2017 has been a great year for us. We’ve had 6% organic growth, 12% op income growth, continue with a greater than 1.0 book-to-bill ratio, record investment that we’re funding internally as well. 2018, we’re going to see at least 6% organic growth, 11% op income growth. Every sector, for the first time in our business is growing, all of them. We’re also going to see funding efficiency by generating additional investment dollars, we are covering those investment dollars, but we’re also covering the costs associated with every one of those efficiency and consolidation actions that are ongoing. They are not impacting our ability to deliver products and continue to increase our margin.
Strategic investments, they're critical to going forward. They're going to deliver disruptive wins to the market, and we're also focused on creating that culture of continuous improvement. Chris is changing our culture. We are building the DNA and muscle mass to have a culture of continuous improvement and excellence, exceeding what we've been able to do in the past for everyone, everyone in that room, on our team, our leadership team is marching forward in a very unique and aggressive manner.

Thank you very much. I'd like to introduce Mark Von Schwarz. He is the President of Aerospace Systems, and he is going to talk to you a bit about his business.

Mark Von Schwarz - L3 Technologies, Inc. - Senior VP & President of Aerospace Systems Business Segment

Todd, thank you. You can see the energy that Todd and his team bring. I really enjoyed working with him the last year, whether we're collaborating on proposals or working on new concepts, him and his team have been great as well is Jeff, Andy and Chris. So I really enjoy my new teammates that I have there.

So good morning. I'm Mark Von Schwarz, President of L3 Aerospace System. My forward-looking comments, are not going to include Vertex. As you know, we're reshaping our portfolio, we've decided to divest Vertex. Our core focus will be in the advance capabilities to include intelligence, surveillance and reconnaissance, maritime patrol and command control and communication systems. Along with reshaping our portfolio, we are also consolidating business areas and functions across several of the sites, but especially in Greenville and Waco, which I'm going to touch on more in the briefing.

In L3 Aero, we bring a full spectrum of aftermarket capabilities to our customers. As I like to say, we don't make the aircraft, but we make the aircraft better. Through our technical capabilities from program conception, through sustained and very successful operations, we take great pride to be in a critical part of our customers missions. Our role on a program as the prime contractor. We take full responsibility from building, fielding, operating and maintaining their capabilities. Often managing hundreds of subcontractors and suppliers. And our capabilities scale very well as teammates on many other programs as I will touch on in the briefing.

U.S. DoD makes up the majority of our business accounting for about 80% of our sales. The rest of our work comes from international customers through foreign military sales, which are largely derivative U.S. capabilities and other direct commercial sales, where we have a substantial IP advantage. Our sales will be about $2.7 billion in ’18, down just slightly year-over-year, driven by the very successful conclusion of some large programs, most notably in Airseeker and a few other international programs. On Airseeker, our team delivered the final aircraft this last summer, actually 2 years ahead of the original program schedule. This great performance by our team with the U.S. government, and the MOD, actually set us up for some new awards that positioned us in the international market for some other opportunities. And we've had great performance on a few other programs, but unfortunately, we concluded those sales this year.

Going forward, we've secured similar prime program positions on a couple new major starts. Albeit, these programs are about a year behind where we would have really liked them to be. Of course, the one you're all aware of is the Compass Call recap. And with the conclusion of the protests, we received our first major award on this program this last August, and we've received some major awards in a new international program. We also made market penetration into new international markets that we feel very, very good about. We're going to be focusing on improving our margins, which we expect will be in the low-double digits in about 18 to 24 months. In the short-term, our new program starts are heavy in engineering and materials, and are largely cost-type programs, giving us a bit of headwind on margins, but these cost type contracts also substantially reduce risk for us, and our shareholders. They also help with customer collaboration, and help us work together when we are sharing the dollars.

For our campaigns, we're focused in the international market space along with recapitalization and modernization. As I mentioned, we have a new international program that we have been awarded, and we have already had several major awards on that program, and we've also made market penetration in a new market. And we also have several other international opportunities that we're going to be working this year that look very promising. I've already talked about the Compass Call recap, but we've also been awarded a role by Boeing for systems integration work on the Presidential Aircraft Recapitalization, or the PAR program. And Northrop Grumman selected us to be the aircraft integrator for the JSTARS recap program going forward. We have several new offerings to take to market, and I just received news that our Multi-Mission Aircraft completed the
challenging part of flight testing very successfully, so we look forward to getting that aircraft in front of customers very soon. And in fact, the flight test was just late last night that we completed on that aircraft, so we’re very excited with the results.

We also have a high-quality light attack aircraft offering which we hope will get momentum in the international market space, and we’ll put effort in the real-time knowledge domain. I think the one comment I hear most from our customers is, the need for the real-time decision quality knowledge. As we go forward, we will see a new level of collaboration in L3 that I think is going to yield significant capabilities. We already use many of the L3 products in our integrated solutions, which I’ll talk about in a couple charts, but Chris is driving the collaboration well back into the conceptual phase of opportunities which I think is going to be very, very powerful. And you can see on the right, in Aero, we expect our sales to be down slightly next year, as our new program start to ramp up, but I'm very optimistic as we head toward the end of this decade, our sales and margins are going to accelerate.

As I mentioned, we spent a lot of time on portfolio shaping, consolidation and integration. So I wanted to give you a little bit the Greenville and Waco facilities that we recently consolidated. We have about 6,000 employees that we operate out of Greenville and about 1,000 employees who operate out of Waco. For P&L leadership, we’ve eliminated a level of management, and we combined common programs across the sites. We have consolidated all of our functions across the sites with a special focus on our competitive business development capabilities. We’ve created a new joint capture center and C.R. Davis heads up our newly integrated business development group. When we look at our capabilities you will see we have the organizational designated authority with the FAA with unlimited repair capability. And we’ve issued nearly 200 separate STC’s on more than 30 aircraft types in the last 25 years. We have advanced systems and software capabilities sporting CMMI Level Scertification, and we are capable of any type of airborne and ground modifications and integration. We also have a significant anechoic chamber complex that gives us the capability to development and produce large and small advanced apertures simultaneously, which not only allows us to improve the capabilities but ensure production schedules. And multiple world class paint facilities that also ensure our high quality deliveries to the customers. Many of our competitors only have access to one paint facility.

And I guess, this is my favorite chart of the briefing. Chris said, he had a favorite chart. This one happens to be mine. So we take great pride in being able to put together any system with any aircraft to provide an integrated capability very rapidly. On the left, you see a subset of the aircraft that we’re currently working on, from little to big, low to high and slow to fast. In the center is a subset the L3 capabilities. Of course, Chris showed that element chart and the power of all those capabilities across all of the divisions, but this is just a small subset. But when you see in the center, there from Sensor Systems is the famous WESCAM ball, the leader in the marketplace along with Comms West famous CDL radio, and aero’s own Rio SIGINT system, and quite often we use Todd Gautier’s training systems from Link and we compete quite often with their training systems to give a whole solution. On the far right, we use examples of the glue ware that we bring to the table our data management system or the DMS, which integrates and manages sensors, radios and weapon systems in real time, we've deployed that with a couple customers on 3 different programs. In the center right is a picture of our RAPDS technology, our patented technology allows our customers to completely repositionize their aircraft in the field as they change from operating environments. And also reduces lifetime program costs. On the lower right is our AIMS technology or Airborne Information Management System, which operates with our mission communication system to provide robust and adaptable communications in threat environments. In all, we have ownership of more than 25 million lines of code and hundreds of hardware designs that we can reuse, repurpose and leverage in our offerings, not only providing a great value for our customers, but also substantially reducing cost and risk and time to market.

So in summary, we expect our sales down slightly in ‘18 on the heels of some great program execution and the new program starts. And our margins in about the 8% range, but we expect the sales and margins to accelerate as we move towards ’19, with margins in the low-double digits, and as we begin to mature the programs, our sales will also grow. We have multiple high-value solutions to offer our customers, but we expect to improve these offerings from a new level of collaboration within L3, and we have significant leverage in our intellectual property that will lower cost, reduce risk and reduce the time to market, especially in the international marketplace.

So that’s all I have. Heidi, I’ll turn it over to you.

Heidi Rolande Wood  - L3 Technologies, Inc. - Corporate SVP of Strategy

In the back, can you hear me? We'll get ready to start the rest of our program.
All right. I know there are still a couple of stragglers at the back. I'm giving you a couple of more seconds to get seated. All right. I'm very pleased to introduce one of our newest presidents to L3. He's the President of Sensor Systems, Mr. Jeff Miller.

Jeff E. Miller - L3 Technologies, Inc. - Senior VP & President of the Sensor Systems Segment

I like that I got the applause before I even said anything. That's always a good start. So thanks, Heidi, and good morning. I am Jeff Miller, President of Sensor Systems. Todd kind of alluded to it, but it's good to be coming back from break, keep things going. I do want to emphasize how exciting it is to be at L3 and, especially, within Sensor Systems right now. It really is a very fun time to be working here. I talked to my wife, I haven't been home much this year, and we talked about the fact that I probably never worked this hard or this much in my career, and I probably never had this much fun in my career. This has been an exciting time.

Let's talk about Sensor Systems a little bit. It is a new segment. People have asked me about what it is. I'll tell you before we get into the charts as a way to think about it. When I came into the company a little over 3 years ago, I personally was very surprised by the breadth of sensor technologies we had in the company, coming in from Raytheon, where I spent 21 years. I expect you to see some small divisions with technologies but nowhere near the breadth of capability we have. And when you see the charts, one thing we may be thinking about taking away is how we talk about ourselves. We have sensor solutions in all domains, and that means sensors from Plankton to Pluto. well, the reason we say that is if you've seen a picture of Pluto, if you watched Cassini crash into Saturn this year, those were our sensors and cameras out in space and they'll pass Pluto, so beyond our solar system.

If you heard discussions in the last couple of weeks about looking for the Argentinian sub, it's our UUVs that are underwater, trying to find it. And it's our sensors on the ocean floor that heard the explosion. That probably means the sub imploded at some point. Those are our sensors.

So on the ocean floor sensors, if you look and hear news about what's the nuclear testing going on in Korea, that's our same sensors on the ocean floor that pick up the acoustics of a nuclear blast, determine its geo location and its magnitude. But really, anything in between there, ocean floor, the outer space, those are our sensors. That's the breadth of technology we have. So kind of a as an intro to the discussion is that I always like to start with 3 things. If you take away 3 things, we are going to talk about today. Number one, we are in the right business, and we have room to grow that business; number two, we have the resources and, absolutely, the company's support to do what it takes to grow those businesses; and number three, a commitment to continue the improvement that we've had going on, that's really reemphasized by Chris' announcement of bringing that altogether on L365. And our commitment to continuous improvement is going to be what's also has continued to grow along into the future. So we've got a very good news story, and I think we'll see that.

Talk a little about the space missions. A lot of what's going in there is we're evolving from being a component supplier in space to being a payload supplier in space. A few of us have mentioned being at the Reagan National Defense Forum last week. General Hyten was there talking about the need for faster that also includes programs in space. Big space programs if you're talking about a payload. He talked about a mission that they're talking about now. They're not sure that they can get it done by 2029. Those timelines don't work in this kind of environment. He's looking for companies like ours, that takes time to offer different solutions.

On the commercial side of our satellite payloads right now, we're delivering a payload every 3 weeks. So multiyears to compare to one delivering one every 3 weeks, we're extremely well-positioned to penetrate further into the space market.

In the air side, Mark mentioned on his aircraft platform, ISR platforms, the WESCAM gimbals. That's our predominant piece we have in the airborne space. Very, very strong in that space, not only through WESCAM, but WESCAM, certainly, is our leading supplier in that market with a very commercial business model that we're also looking to apply in ground. When I talk about the ground market here, we do have penetration there, particularly with some of our tactical electronic warfare [encrypting] systems, and we could do more there. So we're taking the commercial model that we have at WESCAM, applying it to the ground market, and we think that as the U.S. is now looking to go to its next-generation combat vehicles, we have a very good shot of expanding from that strong position in air, also into space.
Soldier night vision. If you see pictures of a soldier, you’re seeing our equipment on them. And pretty much everything you’re going to see, from the goggles they’re wearing to the sights on the rifles to laser, aiming on the rifle, a little less obvious than is on the back of their Helmet where now that’s not just the battery. That is a wireless network that connects everything together.

So night vision has been around for a long time. You go back to the first Gulf War, if you watch on television. It’s the green image that the soldiers are seeing. That’s not what is used now. When a soldier looks through that eyepiece, what they’re seeing is the night vision. They’re also seeing an overhead feed, or maybe WESCAM gimbals video from planes flying overhead. They’re putting a god’s eye view onto their – into their eyepiece. They’re seeing situational awareness data, where there are friends, where there are foes, they’re aiming their weapon without ever having to raise the weapon because that’s all showing up in their eyepiece. It’s a very different approach to the soldier. It’s given us tremendous growth, both domestically and Internationally, so certainly an exciting market there.

Maritime. We’ve traditionally had a strong position. I talked about those ocean floor sensors. We’ve got a lot of nuclear test compliance testing, as I alluded to, as well as training systems. In today’s environment, there’s plenty of room to grow into more tactical systems on the ocean floor, and we’re making some big investments to go do that. We have a very strong position on the Virginia class submarine. We make the elevator systems. You see in the sail of the periscopes, through now photonics mast versus the periscope. Tremendous support for everything going on with Virginia and Columbia and class. Extremely well-positioned there as well.

The last one I have on the chart, electronic warfare and cyber. I’m always a little reluctant to say cyber because the main thing people think about is a certain kind of cyber. That’s not what we’re talking about. We’re talking about cyber in a more of an ISR sense.

So again, think about the fact of that view of what’s in the soldier’s eye piece might also be that we’re intercepting a phone call, and you can see that somebody over there, maybe you didn’t know that they’re there, but you’re intercepting that call and you know where they are, and that’s showing up in the eyepiece. So how do we give a more complete, comprehensive situational awareness view to a soldier? The application we’re talking about in electronic warfare, include counter-USA systems. So you see in the news, the spread of small drones, commercial drones, we have systems to go take that out. So combining our electronic warfare we have a drone that comes in, we use our electronic warfare to attack the drone, deliver a cyber effect, take over control of the drone and take it out of harm’s way. So again, ocean floor to space, plankton to Pluto everyone to think about it. That’s the market that we live in.

When I talk about it being exciting, it is hard work. Also fun when the numbers are good. And we’re in a very strong position. I’d probably start with Winning. And the book-to-bill of 1.25. So we were 1.25 last year. We’re 1.25 this year. And certainly have the potential to hit 1.25 again next year. That’s building tremendous backlog to give us the strength to know we’re going to be growing next year, and really into 2019 as well, and let’s focus a bit more on our additional investments going into the future.

So next year, we’ll be at $1.75 billion. That’s a 11% growth over this year, 10% organic growth. So we’ve made some acquisitions in some key areas, but that’s not what’s driving our growth. It’s organic growth. And as Chris alluded to in his one chart, we think we can continue that out the outyears by the mix of backlog and market penetration we’re getting through our investments.

From a margin standpoint, we’re up 140 basis points in ‘16. As Chris talked about in the last call, we’re taking another $30 million of that to going into IRAD as -- shown on the chart. And we’re going to be down a little bit in ROS this year, basically flat in total earnings as we’ve put more investment into the future. But again, I really want to emphasize that we’ve talked about the payoff of that investment being in the outyears, maybe it’s later in ‘19 to ‘20. That’s not saying that we’re not growing in the short term. It’s saying that we’ve got the short term very secure, and therefore, shifting the focus of our investments to the outyear to make sure that we continue it.

We’re investing the 5% this year, closer to 6% of our sales into IRAD next year. We also made some direct investments. We’ll come back and talk about our strategy a couple of times but in general we move faster than our competition, and we invest more than our competition. That’s what our customers are looking for. That’s what we do, and that’s why we’re seeing the success we are.

We’re about 30% international, 70% domestic. It’s not a one-for-one correlation, but that turns out that that’s our sales mix and it’s also our people mix. About 1/3 of our people are based overseas or close to overseas in Canada, but about 1/3 of our people are outside of the U.S. As we’re growing
the business, not only trying to change that ratio but to maintain the growth we're seeing on the domestic side, we need to grow on the international side. So we're trying to grow both at about the same rate, both in people and in sales. So overall, we expect to continue to be about a 70-30 or 1/3, 2/3 mix between domestic and international.

Four major sectors in this segment focus on those key areas: The WESCAM in the airborne side; space and sensors, obviously, in the space piece; maritime, undersea; and warrior systems, which is all the stuff that we've put on our soldiers and international soldiers. The other 2 groups there in Intelligence and Mission systems, IMS. That's what we do. That's U.K.-based. We have what we refer to as a multi-domestic approach there. To do that kind of work, you have to have very close relationships with the customers. We've made some acquisitions in other countries. We're looking at some additional acquisitions, likewise overseas, to develop those close relationships with government to let you do that kind of work. It's a place where we see room for growth. So we left it standalone for a while to see if we can really focus growth from there. And that last group is a new sector of advanced programs in business development. Brought in a very senior leader this year, Andy Zogg, to run that for us. Again, really focusing on our -- on stepping up on what we're doing on the new business development front to help us grow in the outyears.

So the capabilities. We talked about the capabilities and the opportunities. If you look through the whole chart on here, we have about $8 billion to $9 billion worth of opportunities that we're currently chasing right now. So I talk a lot about -- going back to why I'm having fun and why we're excited about this business. These are real opportunities. It's not just future thinking and investing in things we hope for. We're investing in these types of programs. So starting on the top left, the warrior integration systems, really integrating that, adding augmented reality to our soldiers, has created a new market. And international this year, we have entered about $225 million to $250 million of international sales in that market while we're continuing to grow the U.S. There's new programs coming online, and as tensions rise in the world, we outfit soldiers, and we're extremely well-positioned to go do that.

OA-X. I mean, maybe you're familiar with the Air Force's OA-X program. Mark and his team participated in that as we supported him. There were 4 aircraft bought to that competition for a light-strike aircraft. We have systems on all 4 of them. We're particularly close with Mark's team and also with Textron, where if they can have the quantities they want, we have up to $700 million of content there.

On the space side, just within the last week, we talked a lot about this aggregated space as a market. We can't talk much throughout the program. We just won a $400 million problem there just last week. It's a 5-year program. So very nice work for us. And if you saw the news yesterday, we also announced the $1 billion agreement with ULA to be their exclusive supplier of Avionics for the next 10-years.

And I'd say that we -- in this kind of business, we don't talk about a lot of billion-dollar deals. It's extremely important for us, and I'll talk a little bit more about that on the next chart. And I think it's a great example of why we have confidence in growing. It's not completely immune the budget. But as Chris said, it's going to go up somewhere, and it -- we could have plenty of room to grow almost no matter how much that grows. And ULA is a great example of that.

The top-right piece, all the undersea things we're talking about, you've probably heard us talk about focus on acquisitions to some extent, whether that's our first platforms and the unmanned underwater vehicles or autonomous vehicles. Again, we've bought a company recently this year. They're now -- and the U.S. Navy called us at 3:00 in the morning one Saturday, asked if we can get some systems to Argentina. They were picked up later that afternoon and in Argentina the next morning. Those kind of fast reaction capabilities are what differentiates us as a supplier.

Cabled ocean systems, we can't talk a lot about that. A lot of classified work that's going on there, and the unclassified budget. There's around $3 billion -- $2 billion in the next 5 years being spent there more in the classified budgets, and we're looking to expand there. And again, very strong positions on Columbia and -- on Virginia and Columbia class submarines.

From the acquisitions we don't talk much about this year, very small acquisitions, except a small piece for less than $1 million that we think is going to turn into us winning that program worth an estimated $700 million.

So not everything we've talked about in acquisitions is the next big revenue driver because we haven't "bought revenue". We're buying strategic assets that are helping us improve our ability to win.
Also within the last week, you may have seen the Canadian Service combatant team announced as Canada's combat system -- combat ship team led by Lockheed Martin and BAE. Until last week, that was a Lockheed Martin-BAE team. Today, that's a Lockheed Martin BAE Ultra L3 Team. So if you go to the website, you see -- now you see the L3 meatball logo on that team’s homepage. That was an effort that we led out of Canada to bring, I think, 8 different divisions across the company together to secure a position on that team. We now have an active member on the Board of Directors for that team. It’s a great example of how we’re repositioning L3 as a company and as a partner to our key customers.

I mentioned the ground vehicle systems and airborne. Very strong in airborne, but we're making more penetration into unmanned vehicles, the drone market. That's a competitive field where we have a strong position but there's lots of room to grow. We're in the process of signing agreements that are going to help us grow there, going after other people’s content, V-22, F35, where we already have content. We think we can get more, and we’re going to go do that.

So we're not going to win everything in this page. This isn't a page to say that, yes, we're going to have $9 billion of orders in the next year. Trust me, we're not. But it's an example of why when I go back to the first opening comment, we are in the right business. We're in the right market. This is where there’s growth that we can leverage it.

To talk about ULA. The thing I really love about this is the way the way team approached it. We really can't dictate that there'll be more launches. But our customer ULA had a problem. SpaceX is very aggressive in cutting down costs. They needed a supplier that could help them on that cost journey. And through tremendously hard work by our team, about 2.5, 3 years ago, we were able to double our content from maybe a couple of million launch to $4 million, $5 million per launch. We kept doing that. ULA came back to us and said, "we want you to be the supplier. Help us get costs down." We have more than doubled our content to almost 4x -- 4 to 5x our content from 3 years ago. We're moving on to about double again in what we're doing in content. I won't get into the number of launches, but that's kind of sets that are nominal base, $1 billion of work for us over the 10 years, all by listening to our customer and executing. Not a changing market. It's just paying attention and doing what our customers need, fast and agile.

And what's our strategic focus? I love this, but it's not -- you might go to another conference and you'd see something more exciting. And we're going to go, we've been going here in our strategy and now we're going there. That's not our strategy. I'm going to drive savings through L365 initiatives, bring -- return some of that to shareholders, and we're going to put more of that back into investment and to our future. That's going to put us in a position where we invest, by industry average, probably twice as much as our competitors. And we move faster than our competitors, and we're in the right market. That's the core of our growth strategy.

I'd take those investments.

I'd say in the past, we've probably put close to 80% to 90% of that into our core products. And people are, again, familiar with the MX series of airborne gimbals that Mark showed a picture of. Let's go build the next one of those.

We need to do that. That is our core. But we've shifted that down to about 50% of our investment going into that, 40% going into adjacencies and 10% more into the long-term -- very long-term of pure research kind of activities. That enables us to protect our core, expand into adjacencies, expand on the broad international footprint we have, and then supplement that with M&A. And it's proving to be a very successful combination with activities for us. It's a straightforward strategy. It's working for us. It's, as long-term strategy goes, I think, low risk. How well we'll succeed we'll all be judged by that. I think this is about the strongest position I've seen in my career for being in the right place at the right time, listening to our customers and what they need.

I've talked about the campaigns. So I won't go back through them other than to say, we didn't use to talk about campaigns. We talked about the products, sell the next gimbal, sell the next rifle sight. Those campaigns, they're are what's represented in that $9 billion of opportunities.

Going along with that, we're expanding our offerings. Some of the UUVs are new for us, along with buying company this year that will enable us to enable power generation -- alternative power generation techniques, have a longer safer missions.
Talk about the ground vehicle fire control. What enables that? Like, Todd, we've done a lot of restructuring this year. I have 6 sectors. Within the last 24 months, all of those -- people that are new to those divisions talked about bringing in business development talents as well.

And while maybe a bit confusing from the outside, growing from 3 segments to 4, it'll actually streamlined the organization. Our ability to move quickly, get approval to do things quickly is extraordinary. So that's speed, new organization, speed and agility, innovations, which Chris talked about, came out of our L365 program.

What we did was we did what people do best, from a good practice standpoint. So if you're familiar with Google Ventures, this sprint methodology comes straight out of Google Ventures. It's a 1-week process. It's a very well-defined process. We did 1 earlier this year and said, "we think we can apply that to innovation." This one happened to be a counter UAS so we pulled people from 2 countries, 4 locations on Monday morning, said, "hey, we'd like to be able to take out this counter -- take out a drone that comes in. By Friday of that week, they demonstrated intercepting the drone and driving it out, people that have never worked together before. And I think that's pretty cool. We don't have a perfect solution, but in a week we learned something. Let's do more of those. We moved to doing one a month. We're now targeting one a week. And in February, we're holding a class to train 50 people how to lead innovation sprints, plus some of our customers now want to come do that with us.

When we talk about working with a partnership, we all go to trade meetings. We'd be -- we say, hey, let's get together, let's work together. And what that means is next year, let's meet again and say did we do anything, and the answer is no. We don't say that. Now we say, let's get our engineers together for a week and see if we can work together or not. That's how we build partnerships. That's how we show -- move more quickly, and it's working well for us.

Future focus. We talked about the long-term investment for $30 million. We're investing in a Center of Excellence here. We're putting it in Pittsburgh to bring together more of our core capabilities into a single shop. And as I said, we've done strategic M&A.

In the last 24 months, we have acquired 6 companies. We may do 1 more or 2 before the end of the year. I'm very confident with our pipeline. We'll do 4 to 6 again next year. Some are larger than others. All are strategic.

So what's the summary of that? I'm going to go to my first comment, this is a fun place to be. We are in the right markets. We can grow in those markets. We have the full support of the company to make the investments that we need to succeed in those markets. You're seeing those results now. My confidence that we're going to be able to continue to see that success is very high. 6% organic growth this year with 40% top income growth. Not bad numbers for this year, but I'd grow on that next year with another 10% organic growth. We'd be up in ROS 150 basis points. But again, we're putting that back into investments for next year. That strategy is driving growth, so it's nice to talk about strategy. It's even nicer to be able to stand here today and give specific examples of where those strategy things are heading at.

The Tier 1 partner, our Canadian surface combatant, the ULA agreements, $250 million of international sales. These are very real-time activities that are happening, why we have the confidence that we do.

And with that, hopefully, you get a feeling for that excitement that we have here and what our vision is for the future and, in fact, that we know how we're getting there. We talked about, most frequently in our group, purpose and pace. But hopefully, you just saw us. We know what out purpose is. We know where we're headed. We're committed to doing more quickly.

So with that, I'd like to introduce our -- I will be no longer be the newest president. Our President elect of Communication Systems, Andy Ivers.

Andy Ivers

Well, good morning. It's a tough act to follow my 3 peers here, who have done a great job describing their segments, but I'll do the best I can this morning. I'm privileged to take over the Communication Systems segment. I will tell you that in my 10-years working for John Mega, who is the current segment president, I have had the privilege of supervising every single division in the segment, except for one. So I come to the job with, I think, a little bit of history and hopefully a lot of humility.
Communications is really the connective tissue for all the things that we do. If you think about just sensors and putting the god’s eye view into a soldiers helmet, what we bring is the infrastructure and backbone that takes the data from the UAV or a manned aircraft, brings it down to the ground in full motion video so they can be disseminated and handed over to the soldiers. So although we’re not necessarily the guy capturing the image, we are the guys who bring the image to where it needs to be so they can be applied. We’re the connective tissue. One of that is flying a Predator on the lower right, where we provide both data links so that someone can sit in a shelter in Las Vegas and fly a Predator in Africa. Or the data link that brings the image back so that, that same guy sitting in Las Vegas can see what the Predator sees. Those are all products that we provide.

Similarly, on the SATCOM side, we make data communications easy. Today, a soldier can take a small aperture SATCOM terminal out, set it on the ground, he pushes the green button then plugs the laptop in, the system aligns itself, sets itself up, and he has connectivity wherever he is in the world, just by turning the green button on. So we make it easy. We make it seamless, and we provide the connectivity.

There you go, the right way. So our group is organized into 3 sectors: the broadband communications sector, which is really synonymous with a group that is one of the original divisions in L3 when it was formed, Comms Systems-West, down in Salt Lake City, really the ISR part of our communications. So we take the broadband data from UAVs, and that dates all the way back to the U2. You all remember the U2 is one of the pivotal programs at the beginning of L3, where we’ve put the data links and comms links on that platform. I’ll tell you today we’re going through yet another upgrade of U2 hardware and software on the platform. We continue to take and bring the state-of-the-art technology forward to that platform. And my guess is, it’ll be in service long after I’m not. We provide secure, low probability of intercept, low probability of detection communications. But why is that important? What does that mean? If you’re on the battlefield, one of the last things you want is for someone to be able to hear you, figure out where you are because the next thing that’s going to happen is a shell is going to drop on your head. So if you’re low probability of intercept, I can’t find you, we can’t detect, and fundamentally, they want to be -- you want to be able to not have them deny you communication.

So the capability LPI gives you is they can’t find you. The anti-jam gives you the, "I can’t take that communication capability away from you.”

Our advance communications group, largely centered around Camden, New Jersey, the old RCA operation. For a long time, they were synonymous with cryptography. That has grown into a cryptography cybersecurity information assurance, all the things it takes to keep from having someone break into your communications networks, disrupt them, grab data from them or do something that’s otherwise going to be damaging to you. So they’re world leaders in that area.

They’ve grown their business. They’re now doing maritime command and control before. Where -- what they do is they have a collection of software and integration capability so they can take a radio room on a ship that might have 30, 40, 50 different radios in it. They bring them all together. And they’re not L3 radios. They could be anybody’s radios, and they provide a single point of control so that you can network and control all of those communication elements on a ship. You can do it seamlessly. You can do it with less people. You have one control center, so you don’t have to learn how to run a bunch of different pieces of equipment, and they simplify that operation. We then take that out into the marketplace, where we have a prominent position with the Coast Guard, and we run those -- we set those radio rooms up for. I’ll talk a little bit later about where that’s going as a business, but it’s got lot of opportunity, particularly in the international space.

And then space and power is really a components business for us. And so we have a collection of component companies. Some of them are building Traveling-Wave Tube amplifiers, very high-power amplifiers, very efficient. It’s a niche business. There are places where efficiency is critical so solid state amplifiers are desirable they can’t be used. They’re inefficient and they don’t meet the needs of our customers. So we provide Traveling-Wave Tube amplifiers, whether there are small ones or larger ones, that go on satellites as well as a variety of other integrated microwave components.

So if I give you a quick overview. We’re going to be next year, about $2.3 billion, a little bit less than that in revenue, 5% organic growth. So it looks like my peers we’re in an area that is growing. And when Chris first joined the company, he gave us a very passionate speech which I really liked. He said, I think you should grow, it’s just a lot more fun than shrinking. So I’m easily motivated, so that’s what we’re headed. Operating margins will be 11.2%, and I would like to point out also that we’re winning, our book-to-bill is 1x. So we’re growing and we’re growing both the top line, the orders book at the same pace that we’re growing the revenue. 6% organic growth this year, so moving right along, and at 170 basis points improvement in operating income. And I’ll just dwell on that for a second because that’s not an easy achievement to achieve. But of that
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170, 100 basis points is directly attributable to our continuous improvement activities. Now, we’ve been doing CI for the last 3 years and we track it year-over-year. And you can see, the results of those continuous activities, this L365, is really coming to fruition. What is that driving? About 4% investment in sales. This year, we were able to exceed our plan for profits, so we plowed a little of that into some additional IRAD projects to position ourselves going forward to accelerate growth, and it’s working well for us. And then we’re optimizing. I think we told you probably 2 years ago, we were going to look to make our 2 tube business, one in Santa Clara and one in Torrence, and bring them together. That sounds very straightforward until you realize like, going into your house about 400,000 square feet, you’re boxing everything up and moving it 1,000 miles. And then at the far end, take it all out of the boxes and set it up again. And I’m sure all of you have had the opportunity to move or whenever you move, there’s a period of time where you’re like, which box is that in? So we’re getting through that. I think it’s going well. We’re up and running in Torrance. We’re building tubes, we’re testing tubes, but it’s been a lot of hard work. And at the end of the day, what we’re going to have is 1 consolidated tube business that can go-to-market as 1 tube business as opposed to 2, that we’re almost in a competitive kind of environment.

If you look at our business mix, you can see broadband comms is by far the biggest piece of what we do. Again, it’s the connective tissue. Space and power and advanced comms, very important adjuncts. So we can bring those pieces altogether and go after individual programs. What do I mean by that? So if you look at a major win for us in an international opportunity, we’ll take antennas from 1 company, we’ll take microwave components from another, we’ll take software from broadband comms we’ll be the prime integrator for that, and then take it to market. So we’re actually able to stitch together all of the pieces and not have to go-to-market as a bunch of distributed elements.

A major shift for us. Historically, we would have been a mezzanine supplier and we would have said, “Well, we want to go be on everybody’s team. We want to guarantee a win. We’ll bid with all 4 primes. Now we’re looking at how do we go and pick the winner and get a bigger piece of the pie as opposed to settling.

Like my associates, I think we have a really, really good market environment to be in. The good news is, comms isn’t going away. Your kids, my kids, they don’t talk to each other anymore, they text each other even when they’re sitting next to each other on the couch. It’s confusing because I’m older, I would prefer to talk, but they text. And those are the people who are our customers. They’re going to be the soldiers, sailors, airmen of the future, and they’re all dependent on communication. So we’re well-positioned in that area. Specifically, if you look at what we’re doing, and you heard Todd talk a little bit about A2AD, anti-access area-denied. Our near peer adversaries who we may or may not have to contend with on the battlefield have the ability to deny us this opportunity to communicate. So that’s the access area denied. And in some cases, they deny us by killing you. And so, this is a pretty compelling piece of the market for us. You have to be able to communicate with your assets, whether they’re aircraft or weapons or whatever in a way that they; a, can’t deny it; and be, don’t even know that you’re there. It doesn’t help to have a stealthy aircraft if you hear the radio. So they won’t see on the radar but they’ll listen and they’ll hear you and they’ll know you’re there. And if they know you’re there, they’ll come find you and we’ve had our customers tell us, when they find you, you’re dead. So very important, secure waveforms, secure communications. Again, I have to be able to communicate in a way that I guarantee that they’re not going to be able to deny it to me. We’re so dependent today in all of our military activities on communication. We coordinate, we communicate, we disseminate information. That information is integral to how we go to war as a country. And the communication backbone is absolutely critical to that.

Multi-domain. No longer do we have the air operations center just coordinating aircraft for the Air Force, the Navy coordinating the Navy, the Army coordinating the Army. It’s a cross-domain business now. So we need all of the services to be able to coordinate amongst one another. And again, the communications become that connective tissue, that’s the capability that we bring to the war fighter. ISR is growing. I think I saw some numbers that said, of all of the missions that are out there that they would like to fly, less than half of them actually can be serviced by the assets they have. So that’s a market that is going to grow and it doesn’t do any good to collect data if you can’t exfiltrate it and bring it to where it needs to be. So it offers us a lot of opportunity.

On the international side, it’s even more compelling. I heard General Petraeus this weekend talking and he had a kind of a nice quote. He said the only thing worse than going to war with coalition of partners is not going to war with coalition partners. And as a nation, we’re not going to go anywhere and do things alone. We’re going to have coalition partners, and our coalition partners aren’t going to go do things without us. That means that we need to have communications capabilities that allow us to talk to one another. So if the U.K. has a U.K. radio with a U.K. waveform and the U.S. has a U.S. radio with a U.S. waveform and they can’t communicate, they can’t play as coalition partners. So it opens up a market for us to go in and really say we’re the dominant player in the U.S. data link market. And if you want to be part of our network, here is the equipment and the interoperability and the capability to do that.
On the naval C4ISR side, it’s expensive to run a Navy; it’s expensive to have ships, big expense is people. So if we can automate the radio room, we can automate what’s going on in those ships, we can save them money, we can have fewer sailors on the boats. They can have the people deployed doing other things, provide the growing market for us we see. Literally hundreds of ships, best opportunities in the world. A lot of them outside of the United States and so, we’re chasing that.

Protected Military SATCOM. Again, satellites are there. We depend on satellite communications extensively. The key is, can you guarantee that it can be used even when they want to deny it? And that’s what we bring to the party. Not only do we give you good, easy, quick setup and easy-to-use communication, but it’s got to be satellite communications that communicate even when someone’s trying to deny you. And that’s hard, right? Because you know where the satellite is in the sky, they’re all listed on the Internet, most of them. And you get an antenna and you set up a jammer, how do you defeat that? Well, we bring the special software, hardware that allow you to defeat that.

Weapons data links, same thing. It’s an area that we haven’t had a predominant footprint in. But more and more, we want to launch weapons, we want them to loiter and then at the last minute, we want to call them up and say okay, go over there. Well, if that data link doesn’t work when you want to re-target a weapon at the last minute, there’s no point in ever having launched it. So that connective tissue, again, what we bring to the party. And then the only market that’s not really growing for us at the moment in the space components market, and that’s -- it’s growing but it’s growing in a piece that we have not traditionally serviced. So the large satellites that sit in geostationary orbit that provide communications capability have gone from, some of them say in the 20s down to roughly 5. So that piece of the business is contracting largely because the market is contracting. What is happening? We’re seeing a lot of interest in LEOs, low earth orbit satellites, MEOs and different types of satellites. So we’re repositioning that business, we’re looking at smaller amplifiers, different frequency band amplifiers, and we think we’ll see a rebound in that, but we’re chasing the market trends there.

So our strategic focus, I picked the 3 that really I think are the most exciting. I think I talked to you last year about Manned UnManned Teaming. What we’re doing there is we’re actually putting equipment on Apache helicopters that marries up with the equipment that they have on Shadows, Predators, and a number of UAVs, and enabling the guy driving the Apache helicopter now to access the UAV that’s in the area. Again connective tissue, and can bring the data back from the UAV into the Apache and ultimately poll the UAV to tell it to launch its weapons or have the Apache launch weapons from a standoff range that keeps them out of harm’s way. So the real goal there is having an unmanned partner with your aircraft. The army is actually the leaders of this area, which sometimes they get a bad rap for not leading and General Cody is sitting over here, but they’re the leaders. The Air Force is just now starting to talk about having trusted partners, having UAVs that are flying with jets, again in a Manned UnManned Teaming kind of environment. So we think that what we’re doing in the Apache area, while in and of itself is exciting, we’ve got almost $100 million production awards this year alone, it’s great business. But it’s really a harbinger to what’s going to come. Where we’re going to see it in the Navy with their MH-60 platforms, we’re going to see it in the Air Force. And we think by being a leader in this area, we’ve got a great opportunity.

Naval C4ISR. Really focusing on the Five Eyes, there’s a lot of shipbuilding going on. We’re getting into a lot of those rooms. Our Symphony software, which is a software package we’ve developed, it’s our intellectual property. It really enables us to go in there, automate those communication rooms and then we take over and we’re the comms subsystems integrator. So it’s not just that we sell Symphony software and they buy a bunch of radios, we actually do the integration, do the whole subsystem for them. So we get a nice piece of work there.

Jeff talked about the Canadian Surface Combatant. That is an area where we’re doing a lot of work with them. There you go. Teamwork. Thank you. So we have a big play in that combined activity. We’re also pursuing a radio room in the Australian SEA 5000 program. We’re very happy to hear that were on 3 of the teams that were competing for the ship. One of the teams that we’re on was told they’re the winner, but we haven’t officially heard we won that yet, but we expect that will happen shortly.

A2AD and evolving threats, a big area in Salt Lake City, a lot of technology there. Again, the threat changes very rapidly. And as we start to face near peer competitors, we're going to see this move very quickly. They have a lot of technology, they're bringing it to the fight and I think we're very well positioned. So we're making investments in that area. In a collaborative sense, we're working with some of Todd's folks on Assured Positioning, Navigation and Timing so that we can use the data links that we have working contested environments, to take GPS-like information and bring it to the war fighter where he needs. So it's a very collaborative activity and in fact, it's part of one of the 9 core programs that Chris has identified for us as a team to go after at a corporate sense. We have pulled together divisions much like you saw in the molecule, put it together and Positioning, Navigation and Timing is one of those that we're focused. So the groups are all pulling nicely there.

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Campaigns. I think the only one I’ll touch on that’s not been talked about at this point is NC3. We looked at adjacent markets where we could participate in the industry. Nuclear Command and Control, the ability to again, communicate when people want you to not be able to is critical. Obviously, no more so than on a very, very bad day when you need to launch weapons and somebody is trying to deny you the ability to have that command and control and communicate. We won a nice program to do that in conjunction with Lockheed Martin where we’re the communication system provider to another piece of that program. Just came out of protest and I think we’re going to have a kick off here in another 4, 5 days. So a nice entry into a new market for us. Again, command and control from the aircraft to weapons on the ground, a big growth area for us.

But part of the strategic campaign is to be in that market space where we have the ability to influence things. We’ve expanded our offerings. I think the one I’ll touch on there that I haven’t talked about is Free Space Optics. So we entered a market where instead of running a light wave down through a piece of fiber, which is probably what most of you have to your homes to get high-speed Internet, we actually run that light wave between 2 transmitters and receivers with no fiber in between. So you could put this on airplanes, on other platforms. And if you really want to be not intercepted, what you want to be is have your signal on a piece of light. Because if you’re not absolutely in the beam, you can’t help hearing at all and you can’t even know what’s going on. So it’s really kind of the ultimate in that LPI/LPD communication (inaudible). A very natural transition from what we do at RF. We have receive 2 awards, they total I think, $50 million-ish. They’re EMD kinds of things, so they’re in the development phase, but we think that’s really going to be a nice area for us to grow.

And then future focused. Consolidation, I talked about what we’re doing with the tube business. I think we have other opportunities to leverage that and bring things together. The biggest area for us is the number of disparate computer systems we have. So each company is run from an MRP system, management planning system. First thing we had to do is kind of consolidate those and get everybody working on the same system, and then we can bring the companies together and share information. We’re off doing that actively.

I thought I’d make a comment and I didn’t put L365 on here, but L365 truly is 365 with Chris. And I got a couple of minutes so I’ll tell a story. So I was in my condo at Salt Lake City a couple of weeks ago on a Sunday morning. And I crawled out of bed about 6:15, stumble into the kitchen to get some coffee and pick up my cell phone. And I’m like, let’s see what’s going on. Okay, 6:10, a text from Chris. Are you up, yet? Call me. It’s truly 365 with Chris, and we love it. The energy and what we’re doing here is really exciting. So there’s my kiss up, Chris.

Let me get off stage with this one. 2017, 6% organic growth, 19% operating income, a lot of it coming out of our continuous improvement activity. We’re significantly investing in the future. So I would tell you that we’ve increased our R&D by probably 10% in Salt Lake City while increasing our operating income. So you don’t see it as much, but we’re able to plow more of that money back into the business. In the next year, we’re looking for another 5% bottom line as well as 9% operating income growth. Looking for a significant recovery in the Space and Power area. That’s been a little bit of a drag, as I said, largely because of what’s going on in the market. We’re broadening our M&A aperture. A lot of our focus has been on continuous improvement so we haven’t done a lot of acquisitions in the comms area. We’ve looked at a couple, we’ve come really close to a couple. But they just didn’t quite fit and so, we didn’t get them over the line but we’re going to continue to drive there, and I think we’ll see some significant M&A activity next year.

MUMT, that’s our Manned UnManned Teaming, I talked about the helicopter program. It’s important to us, the transitions in the production. It’s a good example, it’s run out of Salt Lake City as the prime. Our Narda Microwave Group makes a lot of the RF hardware, our ESSCO Raydome group makes all of the radomes, and it’s bringing a lot of different divisions together into play. That will move into production. The PTSFD that’s not related to PTSD from the warfighter, the protected transpondent SATCOM, so that’s the protected satellite waveforms. It’s a really key technology for us going forward in the future. We’re involved in 3 programs, one with the Air Force, one with the Navy, and one with the Army. So I think we’ve got a very good shot to capture really, a tri-service play there.

And then continuous improvement, as I said, bottom line. 100 basis points come out of continuous improvement in the span of 3 years, so it’s a significant impact to us. We’re committed to it and we believe in it and we think there’s a lot more to be done. And then I’ll just close internationally. It takes a lot of patience. I think last year when we talked about international, we described it as lumpy. And really, the issue is you can pursue an international program for 5 or 6 years and then it suddenly hits. And I’ll close with 1 story. So we were chasing a program in North Africa. I think I bid it every year for the last 7 years. Finally, I got frustrated and I’m like I’m not spending any more money chasing this program, it’s not going to happen, and these guys are flakes. And about a month later, we got a PO for a long lead material for $30 million. So it’s very, very hard to predict.
We're going to stay focused on it because it's a big market. And we're going to treat it largely as incremental. And with that, I think I'll pass off to Ralph, and he'll talk to you all about the numbers. Thank you very much.

Ralph G. D’Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

Thanks, Andy. Good morning. I'm very pleased to be here again to review the company’s financials with you. Unlike the other presenters, I don't have a favorite chart. I actually like all my charts, so please pay attention.

So this morning, we covered a lot of detail. Chris and our 4 group Presidents reviewed L3’s businesses, our capabilities, the markets we serve, our business strategies and our growth drivers. And the key takeaway financially is that our business strategies both at the corporate level and at the segment level, they're working and they're succeeding and they're translating into continued improvement in the company's financial performance, and you will see that in 2018.

A few highlights or some of the trends for next year. So first of all, we're growing sales in all of our end markets, the U.S. government market, commercial and international. And it's the first year we're doing that since the beginning of the decade, so that's an important milestone for us to have growth in all the end markets, and we're returning or expect to return to growth in the international market in 2018.

But the key underpinning of that growth is the supportive DoD budget, it started growing in 2016, it's growing in '17 and we expect that it's going to continue to have nice growth the next several years. We're also expanding our margins and growing all of our profit metrics and free cash flow. We heard a lot this morning about L365, continuous improvement, and that's a key element of our business integration strategy, which is all about enhancing the competitiveness and the profitability of L3. That's leading to margin expansion and it's also enabling us to increase the investments that we need to make to grow the company. And we expect to continue to have these benefits after 2018 as well.

In terms of increasing our growth investments, next year, we're going to increase IRAD or R&D by about $35 million. We're also increasing CapEx by about $30 million. Those are necessary to sustain and also accelerate our growth rate in the future.

And finally, with respect to capital allocation, we were talking about the fact that we're shifting the allocation to acquisitions from share repurchases for about a year now, and that's after paying our dividend. And also, we continue to sharpen and bring more focus to our business portfolio, and that led to the decision to divest Vertex which we announced on our Third Quarter conference call. So in many ways, the portfolio which is the businesses that we decide to be in is really the most important part of capital allocation and we're going to continue to be very focused on our portfolio going forward.

The consolidated financial guidance for 2018 versus 2017 and as Heidi said at the beginning of the conference today, these financials that we're showing you exclude Vertex. Vertex is being moved or deconsolidated into discontinued operations. This is L3’s continuing operations for all periods presented.

So starting with the top line, we expect to have 5% total growth and that's a little more than 4% organic growth. We're growing organically in 3 of the 4 segments and you'll see that in a few charts. We're continuing to expand our operating margins. We expect them to be 11.3% for next year, that's up from our previous guidance for 2017 of 10.3% with Vertex. And you can see how the sharpening of the portfolio really improves the operating margin profile prospectively.

We're going to try to keep the share count, diluted shares flat year-over-year, and that's going to lead to a growth in EPS of 5%. Free cash flow, we expect it to grow 7%, which is the same growth that we expect to have in operating income, and operating income is going to grow. It's going to continue to be the key driver of increases in growth in free cash flow in the future.

Again, our free cash flow conversion is about 120% in 2018 and about the same in 2017, and we expect that it's going to continue to be at that level for the next several years. And as I said in the beginning, we're increasing our CapEx by about $30 million in 2018. Most of that additional investment is going in the training and simulation businesses both for the U.S. Military and for the commercial training solutions.
Here are some interesting characteristics about L3’s sales for 2018. I’ll go through these quickly. So if you start on the top left hand corner, we’re predominantly a U.S. government contractor, with most of our sales going to U.S. Department of Defense. We like that characteristic. If you look at the DoD armed services, most of our sales or the largest portion of our sales are with the Air Force and then equal amounts in the Navy and the Army. In terms of our funding source within the DoD budget, in 2018, about 60% of our DoD sales will come from the investment accounts, the balance from operations and maintenance. We have a good, attractive contract-type mix, about 75% fixed price, the balance mostly cost reimbursable. In terms of our sales channels, again this is why L3 is different, we’re both a prime contractor on some very important systems and subsystems, and we’re also a supplier. And the mix is roughly 60-40, with 60% being direct to the end customer.

And then lastly, I’d like to talk about the fact that the company in terms of our sales and our profits are very well diversified, and that we don’t have any significant concentrations in either our sales or our profits. For 2018, our top 10 sales will generate about 20% of our sales and our top 40 will generate about 38% of sales. If you look at our top 10 contracts, they’re all sole-sourced in nature.

Here’s a quick look at our 4 segments for the last couple of years and the initial guidance for 2018. Now the key takeaway here is that we continue to have healthy sales growth and operating margin, including expansions in 3 of 4 segments, continuing the progress that you’re seeing in 2017. And in Aerospace, as we talked about earlier this morning, that’s very much a transition situation for the company. We’re expecting it to turnaround and to improve during 2018 and return to growth and better margins beginning 2019.

With respect to Sensor Systems, I talked about most of the additional R&D spending in 2018, but most of it is going into Sensor Systems. Sensor Systems not only has our highest growth rate in terms of sales in 2017 and 2018. We expect that to continue to be the case in the future. And that’s why we’re spending additional R&D in that segment. And without that R&D increased spending, the margins would be 13.2% for 2018. And we expect that margin to quickly improve above 11.5% for the next few years.

The productivity and margin improvement actions that we’re taking. So I’ll say that, and I’ve said this many times, that when Chris joined the company a little more than 2 years ago as COO, one of his main focus areas has been and continues to be to improve the productivity and the efficiency of the entire enterprise. So here are some of the key ways we’re doing that and many of them are interrelated.

So first of all, integrating the businesses, I mean, consolidating, combining them, restructuring them and streamlining them that they become more efficient and more productive. If you look at our 4 segments, the segment presidents this morning talked about the sectors in each of their segments. Well, we have 17 sectors in our 4 segments. And over time, what we’re doing is basically sectorizing all of our divisions so that over the next several years, we’re going to evolve to a situation where we’re essentially going to have 17 large businesses embodied in the sectors. And we’re doing that through continuous process improvement as well as the consolidation activity. And presently we’re consolidating about 15 of our divisions. That’s going to continue the next couple of years. And I’ll say that we have been consolidating our businesses for, really, the last 10 years. What we’re doing now under Chris’ leadership is accelerating the remaining consolidations and taking it to a higher level.

We’re standardizing on 3 common ERP system platforms, and that’s necessary to enable that consolidation. If you look at our ERP footprint today, about 85% of what we have is on these 3 systems. And we’re going to eventually put all of our units on these systems and consolidate them.

We’re also doing more with respect to shared services. And in 2018, we’re going to add indirect materials procurement, IT service desk and enterprise resource planning or ERP Centers of Excellence for our 3 main platforms. And that will enable us to be more efficient when we transition our units on to these new ERP systems and undertake the consolidation that they enable.

Chris also talked about the fact that we’re taking a look at our pension plans. So we’re definitely evaluating them. You may recall that we froze the pension plans to new hires in 2007. We’re now reviewing soft freezing our existing pension plans or the remaining plans. We have about 25% of...
workforce in the pension plans, and our aim here is to do something that reduces our cost and increases our profitability. That’s what it’s all about.

And then, again, we’re increasing our R&D investment next year. It’s going to be about 3.2% of sales in 2018 versus 3.0% in 2017 and it was about 2.8% in 2016. So we are putting our investment dollars where we see growth, and that’s going to continue to fuel sales growth and hopefully an acceleration in those sales in the future.

Couple of points on our balance sheet and liquidity. So the key takeaway here or the key takeaways are that the balance sheet continues to get stronger. Our cash balances and our liquidity is increasing, and that is going to drive upside for L3. We expect to end -- or we’re forecasting that we’ll have over $1 billion of cash at the end of 2018. I expect that we’re going to deploy some of that cash into more acquisitions. And that should be a source of upside to our performance for 2018. Additionally, our leverage metrics have continued to improve. And our leverage ratios are right where we like them right now. So we don’t see any need for further debt reductions in the future. And as we continue to grow our operating income, and our EBITDA that’s going to enable us to utilize more debt in our capital structure if we decide to do that and if we need to do that.

So with respect to the Vertex sale, which we announced that we’re undertaking when we reported our third quarter results on October 26. We’re commencing that sales process later this month. I will tell you that while we’re divesting Vertex, within its market niche or market subindustry, it is a very solid player, a leader in aircraft maintenance and logistics for U.S. Military solutions. And it is a very desirable business for any of its near peers either on the strategic side or on the financial sponsor buyer side. And to that point, we’ve already received a lot of interest from numerous interested potential buyers for Vertex. And we expect to complete the sale of that business in the middle of next year. With respect to our guidance for 2018, we’re assuming very modest net sales proceeds, which we expect to do better. And we’re effectively deploying none of those proceeds with respect to our guidance for 2018, and that should also be a source of upside.

So to summarize, our corporate strategy is working. It’s manifesting in improved financial performance for the corporation. It’s all about integrating our businesses, collaborating among the business units and investing for more growth and faster growth in the future, while we enhance our profitability and continue to deliver innovation and solutions for our customers that not only satisfy their expectations but exceed those expectations. We’re growing sales, profits and cash flow. The cash flow is robust, and we’re targeting it to continue to grow the company. And the portfolio is aligned with our customer priorities, and we’re going to continue to pay attention to the portfolio to make sure it’s where it needs to be.

Thank you, and I’ll now join Chris to do the Q&A.

QUESTIONS AND ANSWERS

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Okay. Let me turn the lights up a little bit so we can see who’s out there. So Ralph and I are happy to answer questions. The front 4 rows have microphones. Our board has mics, group presidents, Dave Van Buren, Rick Cody, bunch of attorneys, finance people, whoever you want, we’ll do our best. You can pick -- who do you call on?

Jonathan Phaff Raviv - Citigroup Inc, Research Division - VP

Jon Raviv from Citi. Just, Chris, thinking about the 3.0 vision, what is -- and being the 6th Prime. I guess, in your parlance, how many more elements do you want to add to that periodic table so to speak? Or is it kind of strengthening what’s in there already? And then also given your previous experience, how would you expect some of your peers or competitors to react as you try to create that 6th Prime so to speak?
Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Two great questions. Well, just like the real periodic table, which many of you pointed out at the break, was incredibly complicated. We constantly add elements to the periodic table. We'll constantly add elements through the acquisition. And again, even Jeff said, he anticipates 4 to 6 a year.

We've talked about maintaining our investment rating -- credit rating. We -- and I've said previously and continue to say, we could do up to $1 billion of acquisitions per year. You can see we're in the $300 million to $400 million. There will only be good deals. I could see a scenario where it's a couple of hundred million. It could be up to $1 billion. And we said, I'd rather do 2 at $0.5 billion rather than 10 at $100 million or 50 at $20 million. But as a portfolio, you got to see what's out there and what's opportunistic. The key is putting the pieces together to move up the food chain. And we have real life examples that you saw on the video that we talked about with undersea, surface, naval. There's some interesting opportunities clearly in the unmanned areas. So I think that's how we're going to continue to foresee. Relative to, I guess, the other 5, we're just kind of laying down the gauntlet. I think they'll happy and excited to have competition. We all do. And we'll give it a go for certain. You keep going.

Michael Frank Ciarmoli - SunTrust Robinson Humphrey, Inc., Research Division - Research Analyst

Appreciate the medium-term revenue growth targets. Do you have a comparable view on where margins can head over that period of time? And then, just maybe thinking higher level about the L365 savings and savings from consolidations and other actions, do you have a framework for how much of that drops down to improving margins for investments and further growth?

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

Sure. So with respect to the margins and where we think we can take them, I'll repeat what we've been saying recently. And that is over the next few years, I would say, no later than 2020, we expect that our consolidated operating margin should be at least 12%. That will be a record-high for the company. And within the segments, we expect that we're going to expand margins in all 4 segments over the next few years. In terms of the savings that we're generating from the L365 continuous improvement, as I said earlier, we're using that for 2 purposes: one, to fuel part of the margin expansion; and two, to continue to make increased investments to grow the company at a faster rate in the future. So there's a balance there. And depending on the opportunities that we see, we'll continue to make those additional IRAD expenditures. In terms of savings over the next 3 years from the consolidations that we're talking about, I expect that we should have an incremental $40 million to $50 million of operating income that drops to operating margin. And we still have opportunities to go after additional savings the next few years.

Sheila Karin Kahyaoglu - Jefferies LLC, Research Division - Equity Analyst

It's Sheila Kahyaoglu from Jefferies. I guess, Chris I'm going to pick on your favorite metric. You mentioned EBIT per employee. How do you think about -- how do you improve that whether it's headcount consolidations? It seems mostly divisional consolidations. And how do you benchmark versus your peers?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Well, the first step as I said is year-on-year -- year-over-year improvement at each and every level of division segments and corporate. And it's 2 parts to the formula, right? We're talking about growing the top line, growing the bottom line. So focusing both on the numerator, the denominator on the headcount through some of these consolidations. We've laid off, unfortunately. This year, I think it's close to 1,000 employees. It was about 650 in Arrow as we've done these consolidations. So it's both of those 2 working in unison. I think once we get a couple of years under our belt and
show that year to year of improvement, we can go ahead and benchmark it. But I'm just looking for internal improvement, and then we'll see what the right metric is. There's different business models, some of the prime is outsourced. We subcontract 80% of our content. So I'm not sure it's worth a whole lot of effort there.

Cai Von Rumohr  -  Cowen and Company, LLC, Research Division - MD and Senior Research Analyst

Couple of questions on R&D. You mentioned you're going from 3% to 3.2%, and most of that increase is happening in Sensor Systems. Is the R&D to sales ratio in the other businesses stable or rising? And when you talk of R&D and IRAD, is this totally company funded with no reimbursement for the government? And the third for Chris. If we think out longer term, you've been increasing R&D 20 bps a year. Where should we think about '19 and '20 going?

Ralph G. D'Ambrosio  -  L3 Technologies, Inc. - Senior VP & CFO

Okay, I'll take the first couple of questions. Second one first. So we're talking about increasing company funded R&D. Now some of that R&D in our business units that are covered by U.S. government cost and pricing regulations, we're able to include some of the R&D in our overhead rates and we get -- and we obtain indirect recovery in that manner. With respect to the additional R&D spending, like I said, most of it is in Sensor Systems, next year, the rest of it in Comm Systems. And the other group presidents or segment presidents including Todd talked about how we're optimizing our R&D spending, and that's something we've been doing the last couple of years. So not only are we spending more on R&D across the company, but we're also working towards optimizing it, which means that we spend it more productively in areas where we see greater opportunities for success. So we think we have the right level of R&D spending in all of the segments and where it makes sense we're increasing it.

Christopher Eugene Kubasik  -  L3 Technologies, Inc. - President & COO

So overall, I would say, obviously, it's situational 3% to 3.5%. Doesn't strike me as an usual target. Depends on the market conditions that we're growing obviously. If there's a tax credit, if that also plays into it. It depends on the opportunities. But it's on a predetermined plan to grow 0.2% each and every year. Like I said in my comments, we do a bottoms up, we do a top down. And what you're seeing really here is an acceleration, right? Some of these IRAD projects, I'll say are $10 million over 4 years. And we say to ourselves, why don't we do $10 million over 2 years, put the additional staff, get the capabilities, bring it to market. So -- but 3% to 3.5% is probably a good thing to forecast. And we'll let you know if that changes. How about Carter Copeland? I think I see him in the back. No, I guess, I don't. Why don't you try?

Ralph G. D'Ambrosio  -  L3 Technologies, Inc. - Senior VP & CFO

There he goes.

Carter Copeland  -  Melius Research LLC - Founding Partner, President and Research Analyst of Aerospace & Defense

I wondered if you might expand a little bit on the shared services piece of this. Maybe give us a sense of what percentage of the cost that actually is in the cost base today? What the opportunity for reduction is there in terms of sustainable margin improvement?

Ralph G. D'Ambrosio  -  L3 Technologies, Inc. - Senior VP & CFO

So I'll take that question initially, and then Chris can add anything that he sees fit. So presently, we're doing payroll, cash management, and insurance on a shared service basis. And in 2018, as I explained in my charts, we're going to add procurement of indirect materials, the IT services or support desk and the ERP Centers of Excellence. So that shared services is partially enabled as we migrate to common ERP systems, which we're doing over the next several years, and we have opportunity to do other functions on a centralized on a shared service basis, which should give us more savings
and more efficiency and productivity improvements. So other areas would be more of the accounting functions, accounts payable processing, certain HR elements as an example. So that again is a key element to our continued margin expansion objective over the next several years.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Yes. I think for ’17, as I recall the business case, I think ’17 is a breakeven for us because you have to have that upfront investment and the capital of the infrastructure. The savings we’re going to get are all (inaudible) money -- to save money at certain times. So we’ll see those benefits coming in, in ’18 and beyond. And just like everything, you’re going to put in the metrics and we will know how much it costs to process a payroll check on an individual employee basis. And that $6.12, the next year I expect it to be less and less and less. That’s how you drive it, both through volume and continuous improvement. But it’s not -- it’s already factored into the guidance for ’18. I think it was basically a push because the savings offset the investment that we needed in the software and the people and the tool.

Peter J. Arment - Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst

Peter Arment from Baird. Chris, you give us a little bit of color on the M&A pipeline. And you mentioned over -- about 20 active discussions and maybe you said 21 may go away. But maybe you could just give us color in terms of the size of some of these opportunities and what are you seeing out there? And Ralph, maybe you’re comfortable with where the leverage is now. But if there was an opportunity, would you pursue a larger deal? Or is that a distraction at this point?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Yes. And I can tell you the 28 in total add up to about $2 billion of revenue, so whatever that averages out to be. The good news is all 4 of the segments have at least 3 or more opportunities. I believe maybe $300 million to $350 million is the largest, and then there’s a lot in the $100 million to $200 million range. Of the acquisitions we’ve done in the past, again, a lot have focused on commercial pilot training. We’ve done security and protection. We focused on DoD, did an acquisition in Australia, did an acquisition in the U.K. We’re consistent with our philosophy where we have a pretty broad brush. And the majority of these incoming (inaudible) to us, so they will take a look from a banker like everybody else. But our preference to be on the front end and have some discussions just this week Heidi and I were meeting with the CEO of a company. He’s not running a process. He’s talking to us (inaudible). He tried to get the deals done that way. And like I said, people who have grown these businesses and they’re approaching some of their career where they want to go ahead and monetize their investments, they come to us because they know we’re going to treat their employees well. They like -- and I don’t want to overstate the business. The entrepreneurial approach, the business model is a lot better than getting gobbled up and it’s been squashed and lost with a major corporation. And that’s our imperatives, and that’s what we’re doing. So that’s my recollection of what we have in the pipeline.

Ralph G. D’Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

You also asked about the -- our balance sheet and our capacity to potentially finance acquisitions. So -- and Chris reviewed the key elements and objectives of our capital allocation. He did say that one of our objectives is to maintain or preserve our investment grade credit ratings, and that certainly is one. And we’re at the lowest tier of investment grade, and that’s where we like it. I showed you that we expect to end 2018 with a cash balance in excess of $1 billion. And we also have $1 billion revolver available to us. So we have ample liquidity to make acquisitions. And we would use the balance sheet to do that within the content -- context of preserving those capital allocation objectives. And I’ll say that we’re just not interested in making acquisitions to be larger, have more size. We want to be competitively stronger and make acquisitions that enhance our growth on the top line and also increase our profits and cash flow because we’re interested mostly in a higher stock price and in continuous strong TSR performance. So to the extent that M&A helps us achieve those objectives, we’re going to make the acquisitions. And that entails being disciplined on purchase prices that we pay for the acquisitions.
Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

And I'll make a comment, and then I'll ask Jeff to add on to this. We talk about the strategic needs, and Jeff and Heidi and the team worked hard on this unmanned undersea. We saw an opportunity listening to the customer, looking into threats, and we came up with a portfolio approach.

We wanted a vehicle, we needed a power source and we need different sensors. Although we had some, we wanted more. And if I recall, there were 6 or 8 companies, right? And none of these makes sense unless you get all 3. So we came up with an approach. We probably looked at 5, passed on 1, passed on the other. And in a very short period of time, we've put together this unmanned undersea capability, which is a lot quicker than going the IRAD route. And now we have a position as a prime. As you heard Jeff say, it’s already been deployed. We’re working with the Navy to make it a program of record, and that’s the way it approaches. When some banker calls and says, hey, do you want to buy this sub? It’s kind of interesting in and of itself that it doesn’t work without a better power system and the sensors. And that’s the approach that we’re taking. And I think that really differentiates us. It takes more time, but there is a logic. I don’t know, Jeff, do you want to give more color on that from your perspective? Go ahead and stand up so they can...

Jeff E. Miller - L3 Technologies, Inc. - Senior VP & President of the Sensor Systems Segment

Yes, sure. I think I had quite a couple of things together of the comment on the strategic nature of the acquisitions. So big focus on undersea. (inaudible) have been the most described I think that you probably heard us talk about because it is new for us. But it’s really all tied to looking at the current mission. So it’s working closely with, in this case, the Navy, looking at high-value assets and frankly being willing to make some bets on, protect high-value assets, we have lower cost assets that you put out there. That answer was yes. We look for the assets that we could purchase that would give us the leading edge of those types of activities. That’s really how that came together. It wasn’t just somebody came and said, hey, would you like to buy the vehicle? We started looking at it at the start of the strategic standpoint. I’d say that’s going on in pretty much all of our business areas of the outlook why the pipeline is large as it is. And I think I had in one of my charts and talked to it of (inaudible) language, I think I said innovative partnerships or something. We’re also looking at things that maybe are acquiring a company, maybe it’s teaming, maybe it’s buying a share, maybe it’s buying some exclusive rights. All those things are on the table right now. And as Ralph said, I personally probably - Todd and I probably have about the same number, large number of acquisitions. None of them are about buying volume. It’s all about strategic assets. And I think that’s been successful for us. I mentioned the one we paid less than $1 million for something, and I think the leveraging is in the [[$150 million] of opportunity. And that’s our focus.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

He actually put that on the company credit card, and when I got his expense report, I realized, we had bought a company. And you got the frequent flier miles, which the company kept for future use.

Byron King Callan - Capital Alpha Partners, LLC - Director

Byron Callan, Capital Alpha Partners. I want to follow up on Jeff’s comment about partnerships. And you get one of the other primes is now talking about M&A and P being the partnerships, right? So talk about how L3 is accessing commercial technology? Or how you’re getting more exposure in places like (inaudible)? Is there a corporate process? Is this all happening at the business unit level?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Yes, I mean it’s [still] top down and bottoms up. I mean it’s a pretty flat organization. So I rely on Heidi as our chief strategist and then we have both opportunities from the divisions. We also get something from our Chief Technology Officer. Three things come to minds. We’re looking at some advanced technologies in the optical area. And I think the approach we have here, I’ll just say for simplicity, the company might be half commercial,
half defense. We probably don’t want to buy the whole thing. But we don’t want to buy nothing. So we probably are in the process of figuring out -- maybe we take an equity stake and get exclusivity by market, so we control our destiny relative to maybe the military and Homeland Security and let them do the other stuff. Our Chief Technology Officer, Paul De Lia, is working a lot. I mentioned in IRAD (inaudible) autonomy. I mean, everybody’s got autonomy for working with some commercial companies. This will probably be a partnership, where we’re able to take their already existing application and again, leverage it. The good news is there is a lot of innovation, a lot of technology in the commercial world. And rightfully or wrongfully, they really don’t want to be working directly with the Department of Defense, if we’re honest, right. I mean, they don’t know what a FAR and a CAS and all that nonsense is -- overhead rate audits, DCAA, DCMA. These are all things that should be cut in the process of reforming our department. But I don’t think they have the intestinal fortitude to do it. But if they do, those guys will come to our market. They won’t do it. They have to come with us. And we have a great a reputation for working with partners over the last 20 years. We’re not taking their technology, we reach an agreement. We honor it. So we talk about those too. The other one, I’ll just mention internationally. Dave Van Buren, maybe Dave, you can add -- if you want to pass him the mic. But as we travel the globe working with many of the European primes, they like working with us because we can bring their technologies into the U.S. which they can’t easily do without a partner like L3. And again, when they look at the companies they can work with it, they seem to like the management team and the way we approach the business. And it’s a win-win versus the win-lose approach. And then, there’s opportunities for us to take our technology into their countries, but David you’ve been working that hard with several of [them].

David M. Van Buren - L3 Technologies, Inc. - Corporate SVP of Program Development

(inaudible) Dave Van Buren. A good example of that is British Aerospace and where we’ve worked with them on the Canadian Surface Combatant that Jeff talked about. We supported them with regard to Hawk simulation around the world. And now we’re looking at areas that we can combine with them here in the United States. So these kind of broad partnerships that we have with some of the European primes work for us not only internationally, but also in the U.S.

Myles Alexander Walton - Deutsche Bank AG, Research Division - Director and Senior Research Analyst

I was hoping for little bit more color on the margin expansion within the Aerospace -- I think that was the segment that had the most specific near-term target as double-digits. So give us a little walk to get there. Obviously, if you got there next year, you’d be at 12% [or up]. And the other one, maybe Chris, as you think about M&A going forward for this year -- and even in the slide deck, it talks about innovative high tech and bolt-ons which -- and strategic often is a code word for nonaccretive. So can you talk about where your threshold is for establishing accretion and hurdle rates financially?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Okay. This is what I like about the team, you can see they have a lot of energy and when a gunshot goes off, a lot of guys run. Mark stands up and says, give me the mic, I’m going to answer that margin question. That’s what I love about these guys. Mark go answer his margin question.

Mark Von Schwarz - L3 Technologies, Inc. - Senior VP & President of Aerospace Systems Business Segment

So the big deal for us in margins is, we’ve just won the prime position on 2 major programs. And both of those are very heavy in engineering content, and material content in the front-end. So about the first 18 months of those programs, we’re going to be working with the customers and finalizing the designs and building the prototype aircrafts. And once we take those aircraft into production, then we’ll expand our margins naturally on the production aircraft over what is the cost-type contracts that we’re taking now which are, frankly, much lower margin. But much less the risk, okay. You can’t -- you’re not going to lose money on cost-type contracts. The other thing that you get from that is a lot of collaboration from your customer because it’s shared dollars. So as we work on these very high-tech -- very advanced mission systems, we’ll work very collaboratively with
the customers. And then, we’re going to have that technology to leverage into other international market spaces that will automatically be production aircraft with -- outside of a few unique things. So that’s really driving our margins in the short-term. And what we can see is direct expansion over the midterm.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Does that help Myles? Yes. Then on the accretion, I mentioned the strategic, the operational, the financial. We look at a variety of metrics, cash-on-cash returns, accretion is an important one. Some of the acquisitions we made recently, I've looked at as an acceleration of IRAD, but do I want to spend $50 million over 5 years, which of course, may turn out to be $100 million over 10 years because it hasn't been done. When you buy someone, it's already there. We try to build it into the forecast. These things that are under $100 million initially aren't going to move the needle up or down, whether they're $0.02 accretive or $0.02 dilutive. I'll look at it strategically; I'll look at the growth. I look at the timeline until we breakeven. So, it's not a code word, it was re-emphasized that they're going to be smaller, they're going to be bolt-ons. But each and every one will be strategic, not more of the same, not responding to other people's requests that are selling the stuff. It's things we want. These are the 28 I mentioned. We have a whole list of other things that we want to buy that they don't know we want to buy -- that's on the list of things. And some of these are journeys. We have companies we have identified that are larger, meaning maybe $500 million or $1 billion that we're on a 3- or 5-year campaign and build the trust, build the credibility and, at the right time, they'll pick up the phone or, I guess, they'll text me with a secured comm, saying, Chris, we're ready to go. And that's what we're going to do. And by the way, [Andy] -- everybody is a comedian up here apparently, it was 9 p.m. in Taiwan and we had just gotten out of a meeting with the President of Taiwan and I had a business opportunity -- true or false?

Unidentified Company Representative

(inaudible)

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Thank you. And where is that draft letter, so we can get back to it?

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

Noah?

Noah Poponak - Goldman Sachs Group Inc., Research Division - Equity Analyst

Maybe sort of following up on that, specific to the Vertex proceeds, will acquisitions be the top priority for the use of that cash or will you buy back stock immediately when that happens to try to work back some of the $0.15 you took off '18 today? And then also, Ralph, if you could specifically remind us, where you kind of like to keep the cash balance so we can sort of back into what you might buy back to the extent the acquisitions aren't meeting the threshold?

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

So with respect to how we'll deploy the sales proceeds from Vertex, it's going to be a function of what's available for us to transact in the M&A market at that time. And to the extent that there are acquisitions, we'll go for the acquisitions, if not, we'll -- [be likely] to buy our stock with those proceeds. With respect to the cash balance, we don't need to maintain a very high cash balance. I would say they were comfortable with the cash balance being in the $400 million range. If we need to, it can go lower. Because our businesses essentially finance themselves. We generate free cash flow every quarter.
Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

I just want to elaborate, because it made me think of something relative to your question. We've already given the guidance that assumes Vertex is out. Philosophically, we're not going to panic and do short-term gains to make up $0.15 in this example. We've got a long-term strategy, in my mind, of just a bucket of money. The cash will be larger because of Vertex and we'll deploy it, consistent with what we've stated relative to dividends, repos and M&A. And I said on the last call, which I know some people follow, we're always going to do what's in the best interests of the business to create value. If we have to take short-term charges, which we did in the third quarter and that caught people by surprise, but we're still covered financially. To benefit us in the long run, we're going to do it each and every day. The quarters are important, I understand that. We're going to make commitments and meet them, but we're going run this, as it has been run as a long-term business. I'll take charges and I'll lay off people. I'll close facilities and I'll sell entities at a loss, if I have to -- because I believe and my team believes, it creates value in the long haul. And that's how I'm going to approach this cash.

George, we got to call on George. Oh, is there a follow-up?

Noah Poponak - Goldman Sachs Group Inc., Research Division - Equity Analyst

Can I just ask one more and (inaudible).

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

I don't know. Can we do one more, Heidi, do you give 2 questions? He does have a tendency to ask a lot of questions.

Noah Poponak - Goldman Sachs Group Inc., Research Division - Equity Analyst

I'm going to go for it. One more.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

One more question. Everybody in this room complains afterwards, like why did Noah get so many questions? You can see I'm trying to maintain control. Here it is. You can have the mic.

Noah Poponak - Goldman Sachs Group Inc., Research Division - Equity Analyst

Tax reform, really simple question. I think you made a comment possibly interpreting one of the proposed bills to mean you wouldn't be able to deduct any interest. Did I hear that correctly? Because I thought the 2 sides were just debating, if it was 30% of EBITDA or 30% of [pre-taxing]?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Go ahead and explain how this potentially -- it's been a bad result.

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

So, what Chris talked about is the fact that both the House proposal and the Senate proposal each have provisions that will limit interest deductions on debt for corporations. So the House version bases that limitation on EBITDA levels. And the Senate on EBIT -- at least, that's what they call it. When you read the definition of EBIT, it's based upon tax basis versus equity values. And if that's the case, we have a very low tax basis at L3, as
many corporations do. And that would have the indirect effect of reducing dramatically our interest expense deductibility. And if that becomes the case, we will revisit how we finance our capital structure. And that's what Chris was talking about. Whether it makes sense to use debt at the levels that we have it versus reducing those levels. So we have to see how that plays out. We hope for a resolution on that, that makes sense for corporations like ourselves.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

Yes, our estimated tax rate for next year is 26.6%. The next obvious question will be, what's the benefit based on everything we've read over the last 24 hours that [indiscernible] enacted. It's probably 4% or 5% benefit bringing it down to 22%, 23%. If this interpretation is [saved], then that would give back some of the benefit. But all indications would be lower tax rate. We will be communicating this as soon as it's final and we can run through the calculations. But that's kind of a nuanced, read-the-fine-print. Never hurt anybody to define EBIT as your tax basis, but that's what it currently says and someone is going to look at it and reconcile and if interest is not deductible, I hope you would expect that we'd look at it and try to make a more profitable decision as how best to go. We'll see.

How about George Shapiro? George is usually skiing this time of year. Thank you for canceling your trip.

George D. Shapiro - Shapiro Research - CEO and Managing Partner

One for Ralph, and then one for you Chris. Ralph, just a clarification in the segment restatements for '17, you slightly lowered the margin for each of the businesses. I assume that's overhead allocations from Vertex. And then the question I have is in Sensor Systems -- you basically took out the R&D percentage to lower the margin from 2017. But why wouldn't the underlying margin be a little bit better. And two, you also show a 20 basis point benefit from pension. So I was wondering why that pension margin isn't too low? And then for you Chris, what we were talking about before, if you had any color on how much higher or how much closer to the Lockheed's profit per employee level you think you might be able to ultimately get over a period of time.

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

Okay, George. I think you had 4 or 5 questions in that 1 question.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

I kind of liked Noah's approach where you ask a question and we answer and then we get to ask another one. So if we stall long enough, everybody will forget the 9 questions he asked.

Ralph G. D'Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

I'm not sure I'm going to remember them all. So the first question was the impact of moving Vertex to discontinued operations. One of the impacts under the accounting rules is that we have to take expenses previously allocated to Vertex, and therefore, Aerospace, and relocate them across the rest of our segments. And that had the impact of lowering -- lowering each of the other segments margins by about 20 basis points on average. So second question concerned what's happening to the operating margins in Sensor Systems. We expect those to be 11.5% after that additional $30 million spending in '18. It would be 13.2% without it. And Jeff, Chris and I and others are managing to do better than 11.5% at Sensor Systems next year. Recall this is our initial guidance. So, our aim is to achieve it and then exceed it. So, it's only December. We have another year ahead of us, George.
Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

I’ll just add relative to the (inaudible) issue, luckily we’ve grown the last 2 years to make the overhead absorption for Vertex less than it would have been a couple of years ago. And as you know, we had a strategy and 72% of that business was up for re-competition, so we went to that process. But clearly, we’ve assumed some reductions in the guidance and the hard work now is we’re going to go through and I definitely expect the layoffs at the corporate level and other cost reduction initiatives to make this as neutral as is possible. So we’re going to grow a little bit, well, 5% actually. We got to take the hard actions and we’re looking at that department by department, line-by-line. And we’re going to find a way to make this neutral at the end of the day. It may take a few months, but that’s clearly the intention. On the profit per employee, as I said to Sheila, we’re going to try to go over -- year-over-year improvement and calculate it and benchmark different models. But we like competition, we like to be the best. And we’re going to strive to start to do so. Again, we’re not going to do crazy things, like outsource a key capability or competency to artificially increase our calculation. We have several metrics. It’s a portfolio approach. And as you know, we look at returns on investment, we look at margins, we look at productivity. And I’m looking for improvements each and every year and then we will figure out, if we want target someone and beat them. But I think we’re starting to beat them as it is. Our margins are going up, everybody else in the industries are coming down. As you well know and I think that’s going to be favorable if it’s important to use a fee that we’re doing as well or better than our competitors.

What do you think, 2 more questions?

Ralph G. D’Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

Sure.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

You guys have been great, too. We have free lunch coming up here in a few.

Kristine Tan Liwag - BofA Merrill Lynch, Research Division - VP

Kristine Liwag from Bank of America. I was wondering, for your 4% organic growth outlook for 2018, what’s your embedded assumption for your win rates of contracts? And how much of that is already in the backlog? And a follow up to that would be, what are programs that are needle movers we should be looking at for you to at 2018 outlook?

Ralph G. D’Ambrosio - L3 Technologies, Inc. - Senior VP & CFO

So first question, most of our sales that we’re expecting are in backlog or in the follow-on category. Firstly, we’re not expecting a significant amount of competitive new business wins to achieve our top line growth. We have been, I would say, extra conservative on the international pursuit side within Aerospace and, to the extent that we succeed, we capitalize on some of those pursuits, that’s going to drive upside to their top line performance in 2018.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO

The win rate metric in my experience, as much as I love metrics, there are certain metrics that drive potentially poor behavior. So I’m not a big fan of win rate percentages, right. Because whether you calculate it based on the number of the contracts or number of dollars -- and if you say things like, I want to win 75% of everything we did. Guess what happens? We win 75% and we shrink because we’re only bidding the 10 things we know absolutely we can win. So we literally submit thousands of bids and thousands of contracts. And as Ralph suggested in his chart there, there are no single point of sales or needle movers on the downside and, equally, there aren’t any median needle movers on the upside. But $1 billion of [UOA], $400 million here, $50 million, $80 million, $100 million a year, that’s the approach. And we, like everybody, expect to win everything we
bid. Otherwise we wouldn't bid it. We look at the probability of win; the probability that the contract will go and I think we have confidence in that 4% number based on our experience, our backlog, and what's in the pipeline.

And the last question.

Unidentified Analyst
So just to follow-up on that and take it out a bit further. You have the slide in there with the medium and long-term growth rates. I'm wondering if you could talk about the DoD budget growth that underlies those expectations and the level of confidence that you have. And then, maybe as a follow up going back to M&A. If you think about the acquisitions you have done since you joined the company, Chris, anything you can share with us with regards to the returns you've gotten on those deals relative to your expectations?

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO
All right. I'm going to ask Dick Cody who I think everybody knows, runs our Wash ops, do you want to give an update on the budget and some of the numbers we saw and then I'll do the M&A and wrap it up.

Sure, if you take a look at (inaudible). If you take out [mil comm] and all the other revolving accounts and just deal with the base and OCO, the [17] enacted was 5 93. This year what we saw with the House, they came in with base in OCO of 6 44. The [SAT] came in at 6 36 and that's what they're going to conference with. The real complexity is that BCA capped the base in OCO was 5 88. So, both the Hill portion, the Senate and the House are above the BCA caps. So what we're seeing now is -- the CR ends on December 8. Today or tomorrow, they'll vote to extend that CR, to probably the 22nd of December or the 30th, and that's based upon them putting it aside, so they can get the tax bill done. Once they get the tax bill done, we'll see another CR, to push it out probably to the middle of January. Somewhere between 6 44 and 6 36 because of the threat that's out there and we heard it from [states] at The Reagan Defense Forum on both sides of the aisle that were out there. We expect that budget to come in north of 6 36, but probably not 6 44 in the base in OCO, which is about 4% to 5% growth year-over-year. So, it's really driving and then in '19 we'll see the first administration's budget that will give you insight into the 5-year defense plan, '19 out to '22. And we expect probably 4% to 7% increase over time. One of our -- Todd mentioned this, 15 years of war -- what's driving this budget is 15 years of war, almost everything they have needs to be either reset or bought new. So all the guided [munition] systems, the communication systems, they all have to be updated as well as to maintain the technological overmatch we have now with near peer competitor, Russia and China -- and then, of course, the clear and present danger of North Korea. So it's going to be a larger budget. They've got through the budget caps adjustments. I don't think we'll see BCA repealed in this budget cycle. We'll see budget cap adjustments north of 6 36 probably about 6 40 or so.

Christopher Eugene Kubasik - L3 Technologies, Inc. - President & COO
All right. Thanks, Dick. And then on the M&A question, and then to wrap it up. I think we've done 10 or 11 in the last couple of years. We actually have a process where we monitor each one and we report to the board annually as to how they are going. Once you integrate them, you kind of lose the ability to track them which is not necessarily a bad thing. I think in all honesty, there's 1 or 2 that's a little behind on the revenue targets. We had targeted aggressive revenue growth in security and detections. Good news is we're not losing anything, it's just been delayed. We have a couple that are ahead of plan, I think in commercial pilot training, I think in Australia as well. But when you look at it in total, kind of the first 12 months, I'd say in total, we're either at or a little better than we had planned on the portfolio basis. They tend to be mid-single digit, cash and cash returns. And then they grow over time, obviously as the (inaudible) and the cash proceeds. I think we have the good process, the core competency, of which we have many, is doing the acquisitions, then integrating and then monitoring them. So I think we're all very satisfied, I mean, $1 million acquisition and a $700 million award. I don't know, that's a pretty good return.
On that upbeat note, I think we’ll wrap it up. I’ll, obviously, thank everyone for coming. There’s going to be lunch where you had breakfast. And in my opening comments, I was going to say it, but I thought it was better at the end, it’s obviously a true honor to take over in January, as the third CEO. But I got to thank Mike. Mike and I first started working together in 1983. I mean, who else do you know 30-some years later that will still talk you, let alone hire you. So, Mike has been a great friend, he’s been very supportive and the transition is going incredibly well. I mean, we were at [AIA] on Wednesday and Thursday and Friday we went to Reagan Forum. Saturday and we’re taking a red-eye back and I wake up and I’ve got these texts like: “Are you ready for the Investor Conference?” I was like, sorry, I took a 3-hour nap. But yes I will be as soon as Heidi gives me something. So Heidi, thank you for pulling this together, obviously. But Mike, why don’t you come on up? I know you’re a shy guy, and just, let’s give him a round of applause -- 11-plus years.

Michael T. Strianese - L3 Technologies, Inc. - Chairman & CEO

It’s been almost 21 years since we founded L3. And there were a lot of great moments over the 21 years including closing the deal with Lockheed Martin, which we never thought would happen. And getting it public, which was also a long process. But there’s nothing else that I really would’ve rather been doing. And at the end of the day, we’ve created quite a company, I mean, you see it. It seems to be the “6th Prime.” I mean, we were a merchant supplier -- you remember that time the Frank used to use, when we started, which was just a small company selling systems and subsystems -- black boxes actually is what we called them back then. But the recognition that we enjoyed over the weekend at the Reagan was really just amazing. A lot of media attention. And I think it’s limitless as to where the company can go. So I’m very proud of what everybody has done. And Chris, you have my support. And fortunately, I’ll be the Chairman for a period of time going into next year. And whatever help they need, I’m here. And I know they’re going to do great, so thank you.

And thank you for your support.