

Hello, everyone. I am Miyanaga, President of IAB. Thank you for your continued support.

The last time I had the pleasure of addressing you was three years ago, when I made a presentation at our FY2014 H1 results briefing.

Since I became the president of IAB in FY2014, there are three things that have changed and improved. Today I will briefly talk about what we have achieved and the progress we have made over the last three years with our initiatives. I will also talk about how we think about our business as we concentrate on achieving the VG2.0 targets for FY2020.



This slide shows our projections for FY2017. We have framed this by showing comparisons to some historical figures.

First, when comparing the outlook for FY2017 to FY2016, CEO Yamada commented earlier, we project 17% YoY topline growth.

The absolute level of ¥388 billion has a symbolic importance for us at IAB, in that this represents a new record high. As we show here, it is an approximately ¥50 billion increase over the previous peak of ¥339.2 billion, achieved in FY2007. In terms of operating income, the previous peak was the ¥54.6 billion we achieved three years ago in FY2014. We now expect that we can set a new record high at ¥71.5 billion. The resulting OPM we project for FY2017 is 18.4%. Although there have been a number of changes that make it challenging to compare OPMs on an apples-to-apples basis, this is likely to be the highest OPM level we have achieved in the last 20 years.

I have been president of IAB for about 3.5 years now. In my first year, net sales was ¥291.7 billion. We are projecting cumulative sales growth over the last four years of approximately ¥100 billion. As we look toward the FY2020 targets, I would hope to be able to add another ¥100 billion.



First, looking back, I will highlight the three key initiatives we implemented over the last three years.

The first was our market strategy. IAB focused intensively on expanding the business and concentrating on large-scale markets. I will go into more detail later.

Next, the key strength of Omron and, more specifically, IAB, is the unparalleled breadth of our product lineup. We chose to translate this broad product lineup into applications that have value for our customers. We combined these with services to provide total solutions. This has been a key focus over the last 3.5 years.

The third was our focus on enhancing our sales capability in order to deliver these solutions to our customers.

These are the three things we have particularly concentrated on in the last 3.5 years.



Going back to the first point, let's talk about the industries on which we chose to focus. As you know, the first is automotive. The second is what we refer to as the digital industries, which includes devices like smart phones or semiconductors. The third is a combination of food and beverage, household products and pharmaceuticals. The fourth is social infrastructure. These are the four focus industries.

All four represent significant markets in and of themselves, but there are slight differences in terms of growth rates and volatility. Recently, expectations for growth have been high for the digital industries. However, while the growth potential for semiconductors is high, it is also a highly volatile market. Automotive, on the other hand, falls more in the middle versus the extremes of the digital industries, with moderate levels of growth and volatility. This contrasts with the food & beverage/daily goods industries, which tend to show steady growth, but also see limited volatility. Finally, infrastructure tends to be defensive relative to the macro backdrop and can benefit from government programs.

At a high level, we aim to generate stable overall growth by capturing the mix of characteristics specific to these four focus industries.



Next, looking at what we have in our arsenal and the value we provide to our customers. We have used the image of a jigsaw puzzle as a way of aptly describing what we see as our strength. Rather than simply selling discrete products, we are able to provide products from each of the interlocking categories we show here, fully harmonized with software applications. "I" stands for input, "L" for logic, "O" for output such as servo motors, "R" for robots and "S" for safety devices. The integration of these products under an application allows us to offer uniquely distinct solutions to our customers. This is what makes the value we provide to our customers unique.

The asterisks represent categories where we have made acquisitions to elevate the value we can provide to customers. We made four acquisitions over the last three years. We believe this has further bolstered our product lineup and consequently, increased the value we provide.



We show here the four businesses we have acquired over the last 3.5 years.

The first is Delta Tau, acquired in 2015, which makes motion controllers capable of providing ultra-high precision and ultra-high speed control.

The second is robotics company Adept Technology. This was our first foray into the robotics space.

This year, we bought a Japanese industrial camera manufacturer, Sentech.

Finally, in October, we acquired Seattle-based Microscan.

By incorporating these products into our existing portfolio, we have significantly enhanced our ability to create value. I believe this has allowed us to radically change how we are perceived by our customers relative to three years ago.



Running across the top of the interlocking puzzle pieces on slide 20 was a piece representing software.

In fact, the key to our strategy is that we are not simply providing hardware, but that we provide hardware combined with software to create unique applications that have value for our customers. This is the key to the success we are seeing now.

On this slide, we show examples of control solutions we can provide to our customers. All of these solutions are the result of combining hardware with value-generating application software, made possible by Omron's high level of engineering expertise in harmonization and integration. Having a broad product lineup is very important since the absence of even one device would make it impossible to complete a given solution. Only Omron is capable of providing these solutions, since only Omron has this broad product lineup.

Furthermore, to create these solutions requires extremely high levels of expertise in harmonizing a combination of devices. Omron has been able to do this with software applications. I will explain the significance of this later, using video to give you a better appreciation of what I mean.



Next, I will touch upon how we approached the selling process and communications with our customers.

Prior to focusing on applications, it is probably true that we had tended to concentrate more on our hardware specs. For example, with PLCs (Programmable Logic Controllers), which require a high level of technological expertise, our sales process relied heavily on highlighting functionality.

We will continue to promote the high level of functionality of our products, but value is generated in two ways when creating solutions by combining hardware with software applications.

First, we provide our customers with even more innovative solutions allowing them to revolutionize how they manufacture products. For Omron, average customer spend increases ten-fold relative to what it was when we were focused on selling PLCs. This style of sales is positive for Omron since it improves sales productivity as well.

The benefit to the customer and improved selling efficiency are the key features of our new sales approach.



Over the last 3.5 years, we have focused more on our sales capability to grow our business. We are forecasting 17% YoY topline growth this fiscal year.

However, from about 2 years ago, we have been working on the innovative-Automation concept, through which we seek to create new markets and new value for customers. This adds a new layer on top of our market strategies to date. It has been a key focus from last year. It is a concept unique to Omron.

It is centered around innovation. Conceptually, we aim to use innovation to dramatically accelerate our own growth by providing new value to our customers.

The concept can be broken down into three elements.

The first is 'integrated', as shown in the upper right. As we have already discussed, this is about high level control. I will use video to help show what I mean in a moment. Conceptually, we envisioned solutions centered around a single controller able to seamlessly control robots, manage graphic processing and/or control motors. This would make it possible for customers to enjoy productivity and manufacturing capabilities at levels not possible to date. This is what we mean by the evolution in control.

I think this is what most people imagine when they think about automation.

The second element is 'interactive', which is a new way of collaboration between humans and machines. We are now moving away from the idea that efficiency is about simply replacing humans with machines. Instead, manufacturing is now looking at ways to fully capitalize on the strengths of both, ensuring that the manufacturing process is highly efficient but also highly flexible. This is a new approach to manufacturing.

The third element is 'intelligent'. IoT is probably the most well-known example of applying intelligent techniques to manufacturing, where manufacturing evolves further by leveraging the use of data.

These are the three 'i's underpinning Omron's innovative-automation concept.



So, why is Omron talking about this? It is because it is an opportunity unique to Omron. In other words, on the slide we talk about an altitude of 1 to 10 meters above the shop floor. The altitude reference is purely an analogy to describe where Omron is strong, which is in proximity to the manufacturing shop floor. Omron is positioned very close to its customers' actual manufacturing operations, so close that it might be vulnerable to oil splatter. Omron has a diverse product lineup in ILOR+S that serves the manufacturing floor.

What you see at an altitude of 1 meter is sensors and the actual manufacturing equipment itself. Up 10 meters is where you find the control equipment. Omron has a very broad product lineup in this space. It also has the capability to supply these products globally. We believe the only player in the world that can do this in the control equipment and factory automation universe is Omron.

Conceptually, innovative-Automation seeks to leverage the uniqueness of Omron.

Now I would like to explain what we aim to do with this concept.



First, looking at 'integrated' or the evolution in control. This is very much at the heart of automation.

An example in digital would be smart phones, where an extremely high level of alignment is necessary in manufacturing display panels with its multiple layers. Moreover, processing or polishing steps must be done at high speed. To make this happen, you need to be able to ensure synchronization between the controller, robots, motors, conveyors and other equipment. Increasingly, this needs to be a seamless process.

Another example is in the auto industry, and particularly with EVs more recently. Batteries are a key device. Manufacturing involves a winding process. The process requires consistent winding tension throughout, but with high levels of precision and speed. Achieving this requires extremely high levels of control.

Another example is the picking process. Robotic picking looks easy at first glance. However, it must be synchronized at an optimal speed for the conveyor in order to successfully pick an item. Moving too quickly could damage the conveyor or merchandise. The robot must be synchronized to the speed of the conveyor but needs to also adjust down the speed of its own motion at the instant it approaches the item to be picked.

Achieving this makes high levels of productivity possible. This is what we mean when we talk about the evolution in control.



Second "i" is 'interactive' or human-machine interface.

I don't have a video for this but you see on the left the mobile robot which we launched last year. This product leverages AI to autonomously determine the optimal route for its tasks and ensures that it maintains a suitable distance from humans in its vicinity. AI allows it to move freely around the manufacturing floor, creating a workspace where both humans and machines can work together flexibly.

The photo on the right shows a robot and humans working together. At first glance the proximity might appear dangerous. However, what makes this possible is Omron's sensor technology, which detects the presence of humans and ensures safety, and its robotic technology. This is a new type of interactive technology, where humans and machines can collaborate in new ways.

This is what we mean when we say 'interactive'.



The third 'i' is 'intelligent' or IoT. As shown on the slide, we show the altitude from the shop floor, going from 1 to 10 meters and then 11 to 10 meters.

In the lower left, we show input devices, or sensors. On the right, we show output devices, which are items like motors. Data collection by the input products on the shop floor is the first functionality.

Above, you see a controller which incorporates AI capability. We launched the world's first AI-enabled controller this fiscal year. This controller processes the data, allowing for visualization, which is the second functionality.

This data can then analyzed. The results of the analysis can then be fed back into the controller algorithm in order to enhance the control of the output devices.

The iterative learning process has the potential to make new forms of control possible. We think this epitomizes the value Omron can provide to customers in the IoT era: intelligent automation.

I want to develop this into a business model.



This is the model that we are proposing.

Omron and the customer confer and collaborate at the outset on engineering and maintenance. The products to be provided are the ILOR+S hardware and control application software components, as discussed previously. However, the solution is not a combination of standard elements but instead is something that Omron and the customer create together.

By providing full coverage of the process from advance consultation to maintenance, Omron ensures that it is fully rewarded for the value it provides. This also allows Omron to enjoy high levels of efficiency. This is the new business model we would like to launch.



This is an example.

This is a process where bottles are being filled from a tank. We will collect all of the data points generated through the process, to visualize and analyze the process, as shown in the upper right. The learning process made possible by analysis will be used to determine the optimal pace of nozzle openings and closings, and the optimal aperture.

The bottles flow through the process at very high speeds. The only thing we are controlling is the opening and closing of the nozzle. The speed of the conveyor will be controlled by simply controlling the pace of the opening and closing of the nozzle. The speed of the conveyor and the pressure in the tank as a result of amount of liquid left in the tank, is adjusted by the pace of the opening and closing of the nozzle.

Using the AI controller, we will be able to work with our customers to create a feedback loop that constantly focuses on optimizing efficiency. We believe this represents a new wave in manufacturing, where the process will be continuously optimized.

Future Steps for "i-BELT"   Releasing "IoT Start Package," which facilitates FA equipment data collection, in October 2017   October 2017   By March 2018   From April 2018   Release of the IoT   Start Package   Increasing number of connected equipment brands	H1 Results Full-year Fore	casts IAB Strategy	Shareholder Returns	Sustainability	
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We call this new business model 'i-BELT'.

It will deepen our relationships with our customers while allowing us to build a new business model focused primarily on AI controllers. Beta versions have already been rolled out from October, in the form of visualization software packages. Over the next 6 months, we will refine the product, before formally launching the business in April 2018.

Although we are still in the assessment phase, in the IoT era, we aim to create a uniquely Omron-like iterative model that allows for continuous optimization. We believe this will be extremely effective in allowing us to maintain strong relationships with our customers.

We are already in the preparation phase. Our plan is to launch this business in April 2018.



Finally, this is the IAB vision. Adoption of automation is now a major social issue on the back of rising labor cost globally and, in developed countries like Japan, a severe shortage of workers.

Simple automation is no longer enough to resolve this issue. It may well be that what we are aiming to do in automation can address broader social needs and could contribute significantly to society.

It is imperative that society finds ways to resolve this issue now. Against the backdrop of this far-reaching social issue, IAB is committed to accelerating its growth and surpassing the VG2.0 FY2020 sales target of ¥480 billion.

I will now hand over to CEO Yamada again. Thank you.