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## Sixth Mid-term Management Plan Strategy: Evolution, Fortification, Expansion, and Innovation

The Sixth Mid-term Management Plan Strategy starting from April 2010 was "to advance our three major brands until they each become the top brands of their respective industries". This strategy is shown in the following as the goals that we call the "Four SHINKA" as we head into the last year of the strategy.

- Evolution: "Expansion strategy for the value chain" Make reforms in the manufacturing technology and manufacturing processes
- Fortification: "Pursuit of core competence" Leverage the strengths of each of the three divisions to fortify the strengths and specialties of each field
  Expansion: "New markets, future markets"
  - Make further expansion into industries (environmental, new energy, robotics) that are expected to grow in the future
  - Adopt technologies for the expanding safety, nursing, and health fields due to primary industry and aging society
- Innovation: "Strategy for disruptive innovation" Develop new products not chained by existing ways of thinking by harnessing the power of all three divisions for industrialization

Consulting operations for production technology

Looking back on 2011, the Tohoku Earthquake and the tsunami that occurred afterwards lead to unprecedented disaster. Furthermore, the world economy saw a sudden rise in the value of yen, instability in the European currency, and a credit crunch in China. In addition, with the sudden jump in rare metal prices and rendering of the supply chain due to heavy flooding in Thailand, business operations at Sanyo Denki were greatly affected this past year.

One of the biggest topics discussed for the evolution and development of the manufacturing industry is the development, startup, and introduction of new products in order to meet diversified market needs. Many people may long remember hearing the term "concurrent engineering" in regards to planning and development of new products.

The old model for a development system involved repeated trial and testing of prototype models until the functional design was completed. Using this methodology, the Design and Development Department spearheaded progress in the prototype stage, and at the stage where the functional design model was completed, related departments such as Production, Production Technology, and Material Supply took part to complete the mass production process design.

At Sanyo Denki, we are currently starting a revolutionary development system using the "front loading technique". This method places emphasis on the first stage of development. In this method, related departments participate from the development stage to include their specialized knowledge so that performance, quality, and cost details are all incorporated by the time that the planning design is complete. The evolution of 3D CAD and use of analysis software are also secret weapons for this method. When using 2D CAD in the past, people without a certain level of expertise could not easily comprehend the structures and functions. With 3D CAD, design developers can "visualize" the product in their heads from the functional design stage. In addition, everything from manufacturing equipment design and tolerance design that takes into account the processing ability of the mass production manufacturing process, to the manufacturing process line design and electronic manufacturing operations outline can proceed simultaneously, which greatly contributes to shortening the development period for new products.

Furthermore, reformation of the process for development procedures has made training of personnel a large topic. My favorite word is "inspiration".

An "inspiration" does not come from just "a gut feeling" or "intuition". It originates from the knowledge gained through study or things experienced in the past.

An "inspiration" is what happens when you are faced with a problem blocking your way, and when your brain receives certain information, all of the knowledge stored previously in the many layers of your brain change into insight and a light switches on in your consciousness. This is an "inspiration". Therefore, the first condition for developing personnel is determining how much knowledge can be converted into insight. Money can be used to purchase a certain level of knowledge. However, insight can only be obtained by adding experience to that knowledge. For anything, it is essential to think positive, acquire knowledge greedily, and convert that knowledge into insight.

This report collects the technical results from 2011. In addition to the new development technique described previously, the engineering staff has converted countless amounts of knowledge into insight, producing "inspirations", and creating products born through the "Four SHINKA". We achieve customer satisfaction, which leads to employee satisfaction, and the cultivated technology becomes the foundation of the continuously developing manufacturing industry. These efforts are sure to make our company's three brands the top brands in the industry.