## **Innovating production systems**

The conference room of the Japan Productivity Center (JPC), Tokyo, was full of enthusiasm in the afternoon of 20 December 2009. Inside were participants in the APO training course on Innovation in Production Systems who were animatedly discussing how strategies learned during the two-week course, 30 November–11 December, could be applied in their organizations. "All the knowledge and skill obtained in this course will be effective solutions to the issues we face," said one group.

The course was designed and conducted in close collaboration by the APO and JPC to develop the capacity of senior and mid-level production managers and trainers/consultants for the innovation of production systems. "The course focused on practical learning and hands-on workshops for participants. The majority of them were selected from among holders of a certificate from the APO e-learning courses on the Toyota Production System (TPS)," noted Secretariat Industry Program Officer Keiichi Tanabe.

A highlight of the program was a two-day practice in kaizen and the TPS at Hirayama Co., Ltd., a Japanese consulting and training company specializing in the TPS. Three instructors trained participants in the core principles of TPS-style kaizen through hands-on practice on simulated assembly lines. They emphasized the importance of "action on the shopfloor," through three adages: "utilize the knowledge learned on the shopfloor"; "kaizen will not occur without adaptation by workers on the shopfloor"; and "there is no end to kaizen."

Another hands-on exercise in cost reduction and planning took place at the JPC's International Productivity Center over two days. The main method used was the



Learning TPS-style kaizen at Hirayama

"teardown," or completely disassembling a product to separate each element. Cost reduction measures can then be identified by examining and analyzing each part in terms of weight, unit cost of materials, labor time, machine operation time for production, etc. President Takashi Horiguchi, Horiguchi Business Consulting Corp., the session instructor, explained the four teardown steps: confirm function in an operational check; make up a bill of material after teardown; identify cost reduction opportunities and compile an idea sheet; and presentations by all groups.

On the final day of the training course, participants shared the outcomes of group discussions, in which the methods taught were reviewed and adopted as problem-solving tools for innovating production systems.