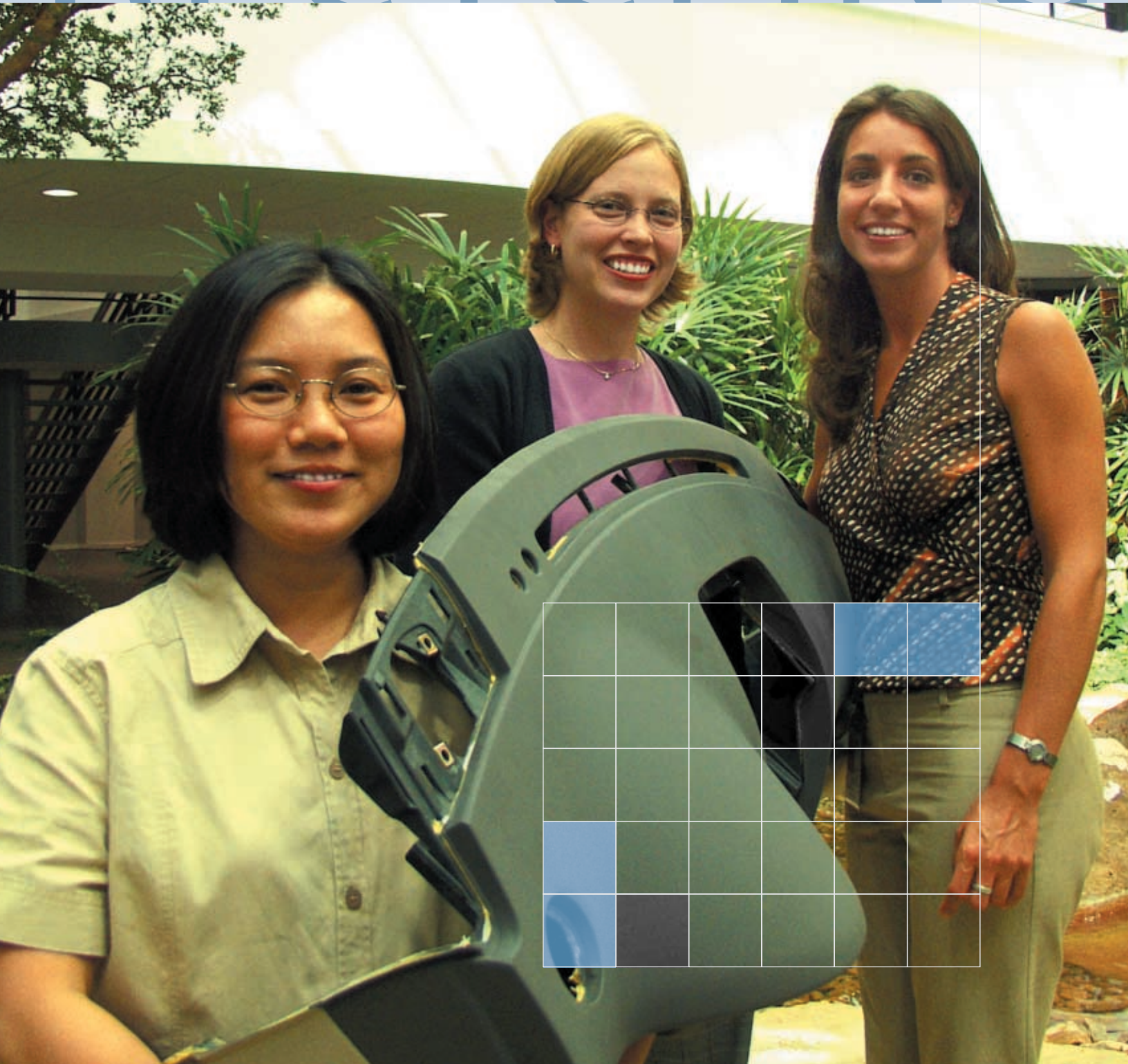


# RECYCLING

**“It is essential for Toyota as an automaker to... promote the creation of a sustainable, recycle-oriented society.”**

— Toyota Recycle Vision, June 2003



**Through numerous initiatives on a global scale,** Toyota is on the leading edge of reducing the environmental impact of automobiles at the end of their useful life. As part of this effort, in North America, Toyota is working to achieve a 95 percent vehicle recovery rate and to reduce our use of various Substances of Concern.

**TARGET: GATHER NORTH AMERICAN BASELINE DATA FOR SELECTED SUBSTANCES OF CONCERN**

Following last year’s Substances of Concern content analysis of the 2002 Camry, Toyota recently completed a similar study on the 2004 Solara Coupe. Both analyses will help us reduce use of Substances of Concern in the future design of our North American vehicles.

**TARGET: DEVELOP FUTURE NORTH AMERICAN SOC STRATEGY**

In accordance with the Toyota Recycle Vision, Toyota materials, design and production engineers in North America, Japan and Europe are establishing global standards for the reduction of Substances of Concern in all Toyota vehicles. In addition, the Vision’s aggressive goals for nearly eliminating four key Substances of Concern in various global regions will positively impact products introduced to the North American market.

In 2002, we set targets, specific to our North American vehicles, for eliminating, replacing or reducing use of critical Substances of Concern, including arsenic, hexavalent chrome, cadmium, mercury and lead. We successfully reduced use of Substances of Concern in the 2004 Solara and 2004 Sienna, compared with the previous generation vehicle. For example, we greatly reduced use of lead in the Solara by using a lead-free radiator and heater core, glass-black coating. Additionally we used lead-free body electro-coat on both the Solara and Sienna.

**GOAL: DEVELOP RECYCLING DESIGNS AND PROMOTE EXPANDED USE OF RECYCLED MATERIALS**

The recyclability of an end-of-life vehicle depends on two key factors: the economics of handling the end-of-life vehicle and the initial design of the vehicle. The Toyota Recycle Vision encourages enhanced recyclable designs and promotes increased use of renewable resources and recycled materials.

**TARGET: INCORPORATE MATERIAL AND DESIGN STRATEGIES FOR INCREASED VEHICLE RECYCLABILITY**

Below are three recent North American activities which support our efforts toward reaching a 95 percent vehicle-recovery rate by FY2015.

- Development of recyclable designs for vehicles — We replaced the Polyvinyl Chloride instrument panel cover used in the in the 2003 Solara Coupe and 2003 Sienna minivan, with durable thermoplastic urethane in the North American designed and built 2004 models.
- Use of renewable resources — We expanded our use of kenaf, a natural material, in the composition of door-trim components. We are also evaluating the use of kenaf and a proprietary eco-plastic in future North American-designed vehicles.
- Expanded utilization of used parts (re-manufacturing parts for vehicle service applications) – In North America, Toyota has targets to consistently expand our existing remanufactured product lines and to develop additional product lines. During this reporting period, we added 170 additional remanufactured applications to our existing product lines.

Main: (left to right) Materials Engineers Linh Thompson, Faye Zaski and Janine Bond from the Toyota Technical Center, Ann Arbor, Michigan, display an instrument panel, used in the 2004 Solara coupe. The new panel employs a thermoplastic urethane outer skin replacing the Polyvinyl Chloride skin used on the previous generation Solara to address concerns about potential environmental impact of PVC. The new Thermal Plastic Urethane material is also used on the TTC-designed 2004 Sienna minivan instrument panel.