



Media Release Convocation des médias

THE AUTOMOBILE OF THE 21ST CENTURY – L'AUTOMOBILE DU XXI^E SIÈCLE

University of Waterloo Researchers Help Shape Future of Hydroformed Automotive Components

For immediate release

June 11, 2003

Waterloo, ON: Hydroformed steel tubes have become more common in today's vehicles, especially in truck frames and engine cradles. An alternative to traditional stamp-and-weld processes, hydroformed parts are created by using high-pressure fluid to expand the tube into the required structural shape. Most current components are constructed from drawing quality steel, but in the quest to create lighter vehicles to save on fuel economy, researchers are looking for ways to integrate new, higher performance materials into the hydroforming process. A team of Canadian university researchers is testing high-strength, dual-phase steel to determine its limits for use in these applications. Dr. Michael Worswick, a professor of mechanical engineering at the University of Waterloo and a project leader for the AUTO21 Network of Centres of Excellence, is coordinating the team of researchers investigating the issue. On June 18, 2003, Dr. Worswick will present some of the team's findings at the AUTO21 Scientific Conference in Niagara-on-the-Lake, Ontario.

"Hydroforming can help reduce the vehicle weight, increase its fuel efficiency and create stronger, stiffer components that require less welding," says Dr. Worswick. "High-strength dual-phase steel is lighter than what is currently being used, and can replace conventional steel to produce lighter, thinner-walled components. While it has excellent strength characteristics, the properties of high-strength steels create some challenges in its formability, especially in creating the sharpness of bends often required."

As part of the AUTO21 Network, Dr. Worswick coordinates the work of researchers from McMaster University, Queen's University, Université de Sherbrooke and the CANMET Materials Technology Laboratory, part of Natural Resources Canada. The team works with representatives and receives assistance from Dofasco, Stelco, Nova Tube and Eagle Precision Technologies Inc.

The AUTO21 2003 Scientific Conference will take place June 16-18, 2003 at the White Oaks Conference Resort in Niagara-on-the-Lake (253 Taylor Road). Dr. Worswick's presentation is scheduled for 10:45 a.m.-11:15 a.m. on Wednesday, June 18. The conference is an annual event that highlights some of the Network's recent research results while providing a networking opportunity for the Network's 450 university and student researchers and additional industry and government representatives.

Other conference presenters include Michael Grimaldi, President of General Motors of Canada, and Gerald Fedchun, President of the Automotive Parts Manufacturers Association. Additional conference information can be found on www.auto21.ca in the news and events section.

- more -

The Government of Canada awarded the AUTO21 Network of Centres of Excellence an initial four-year grant of \$23 million in 2001 to help it enhance Canada's position as a world leader in automotive research and development. Researchers at 32 Canadian universities are working on innovative, auto-related projects in the areas of health, safety and injury prevention; societal issues; materials and manufacturing; design processes; powertrains, fuels and emissions; and intelligent systems and sensors. In addition to the federal grant, AUTO21 is supported by industry, government and institutional contributions of \$11 million.

Networks of Centres of Excellence are unique partnerships among universities, industry, government and non-governmental organizations aimed at turning Canadian research and entrepreneurial talent into economic and social benefits for all Canadians. An integral part of the federal government's Innovation Strategy, these nation-wide, multidisciplinary and multisectorial research partnerships connect excellent research with industrial know-how and strategic investment.

Three Canadian federal granting agencies - the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Social Sciences and Humanities Research Council of Canada (SSHRC) - and Industry Canada combine their efforts to support and oversee the NCE initiative.

- 30 -

For more information, please contact:
Stephanie Campeau
Communications Manager
AUTO21 Network of Centres of Excellence
tel: (519) 253-3000, ext. 4129
cel: (519) 890-3338