ARGONNE AND GENERAL MOTORS PROVIDE COMPLETE PICTURE OF VEHICLE ENERGY CONSUMPTION, PERFORMANCE AND COST

THE CHALLENGE
Having a clear understanding of the energy consumption, performance and cost of various vehicle technologies is of great interest and value to automakers, energy companies, government agencies, and others.

However, in recent years, vehicle technologies have become increasingly complex with the introduction of new powertrain configurations (e.g., electrified vehicles), new component technologies (e.g., advanced transmissions and engines) and control strategies (e.g., eco-routing).

In addition, increased vehicle online connectivity and automation have complicated things further, requiring engineers and researchers to understand the entire transportation system as opposed to simply considering just the vehicle.

THE INNOVATION
Developed by researchers at the U.S. Department of Energy’s Argonne National Laboratory, in collaboration with General Motors (Detroit), Autonomie is a software environment and framework for automotive control-system design, simulation, and analysis.

Autonomie allows researchers and engineers to simultaneously and accurately evaluate the energy consumption, performance and cost of advanced powertrains, component technologies, and control algorithms in a wide range of driving conditions.

THE IMPACT
☐ More than 130 organizations worldwide – including automakers, energy companies, government agencies, research institutions, and universities – use Autonomie.

☐ Since 2006, Autonomie has been licensed 223 times to organizations around the globe, helping them gain a richer understanding of our vehicles and their impact on society.

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January 2019