

Meet MATT

Argonne's Modular Automotive Technology Testbed

Did you know...

Building prototype vehicles is a costly and time-consuming practice for automakers looking to design and develop new cars and trucks. Complex vehicles can require numerous prototypes, which cost hundreds of thousands of dollars to build.

Opportunity

Many promising advanced vehicle technologies have been developed in recent years, from engines and transmissions to advanced batteries and fuel cells. A cost-effective method was required to bring all these technologies together for testing in a single vehicle system. Nothing like this existed, so Argonne engineers created a unique and novel evaluation tool called the Modular Automotive Technology Testbed (MATT).

Argonne's Solution

MATT looks like a vehicle stripped down to its bare essentials. On this test platform, researchers can easily add, rearrange, and interconnect various components to permit careful study. Then, using special computer programs, they can simulate real-world vehicle operation.



Argonne engineers Thomas Wallner (left) and Henning Lohse-Busch put a hydrogen engine through the paces on MATT.

Potential Benefits

MATT's test results help researchers understand which combination of components will result in a vehicle that best meets efficiency, emissions, and performance targets without having to build numerous vehicle prototypes.



MATT's scalable capabilities allow researchers Ted Bohn, Neeraj Shidore, and Lohse-Busch (left to right) to test vehicles in a variety of shapes and sizes.

Visit www.transportation.anl.gov to learn more!



INVENTING THE FUTURE. *efficient. clean. safe.*



Research funding provided by the U.S. Department of Energy's Vehicle Technologies Program.

