



CHALLENGE 5 **FUTURE FUELS**



CHALLENGE STATEMENT

Produce, transport or store alternative fuels such as hydrogen, biofuels or synthetic fuels.

CHALLENGE DESCRIPTION

While electrification is ongoing, alternative fuels can bridge the gap and reduce emissions versus traditional fuels. There are also applications where electricity is difficult to apply, such as for combine harvesters and rural transport with long travel distances and limited charging and supply infrastructure.

Biofuels also have the additional benefit in reducing waste from crops which would otherwise rot into methane. We are looking at SMEs contributing to producing, transporting or storing biofuels, synthetic fuels and hydrogen in the West Midlands, and making them accessible to their consumers.

SOLUTION EXAMPLES

Solutions that address this challenge could include:

- Local production and transportation to increase the affordability of hydrogen fuels in the West Midlands, as well as reduce waste.
- Focus on areas where electrification is a challenge, such as larger machines (e.g. Combine harvesters, HGVs, tractors, refuse trucks and other maintenance vehicles).
- Solutions to retrofit vehicles today to be compatible with alternative fuels (only where vehicles have long life, such as HGVs and heavy rail).
- Applying alternative fuels for EV charging infrastructure, especially in places where charging infrastructure may be less accessible.
- Efficient storage and transportation of alternative fuels, with reduced waste, space utilization and lower emissions.
- Applying cleaner fuels from aircraft and maritime to automotive and rail.