

# Use case Spotlight



An introduction to the technologies behind the ZEVRA project

## Sheet Metal Steel: Driving Sustainability Forward

### USE CASE AIM

To develop new car components (fender, bonnet) from steel (0% virgin materials).

### WHY IT MATTERS



**Reduce Raw Material Dependence:**  
No virgin steel



**Eco-Friendly Process:**  
Eliminates scrap and smelting



**Lower Environmental Impact:**  
Reduced energy use and CO2 emissions

### COLLABORATIVE EFFORT

ZEVRA partners involved:



### HOW WE MAKE IT HAPPEN

- 1 Innovative Methodology**
  - Utilising advanced forming techniques.
- 2 Material Assessment**
  - Characterising materials and conducting non-destructive testing.
- 3 Design & Simulation**
  - Running simulations and refining prototype tools to meet material and design needs.
- 4 Forming Process**
  - Adapting steel forming.
- 5 Testing & Quality Assurance**
  - Implementing integrated quality measurement and developing alternative testing tools.

### IMPACT AND OUTCOMES



**Sustainable Cars:**  
For the use of car components will enable low/zero-emissions cars (from the material perspective). This will help to achieve the emissions goals of ZEVRA.



**Circular Economy in Action:**  
Pioneering materials for future automotive innovations.

