

**PRECISE3DM**

**AUTOMOTIVE**

BENCHMARKING SOLUTIONS

## ABOUT US

Precise 3D, a 3D Business solution provider, equip companies with advanced disruptive technologies, software & hardware that help their day to day productivity, Increase profit and turn around time, directly improving their business

We also provide 3D technical solutions that enables companies to avail highly specialized challenging short and long term projects with our in-house & on-site 3D solutions.

## OUR SERVICES

Teardown Benchmarking

Digital Benchmarking

Electrical and Electronics

Value Engineering

BIW & vehicle Scan to CAD

## AUTOMOTIVE BENCHMARKING SERVICES

### TEARDOWN BENCHMARKING

#### OVERVIEW

Teardown Benchmarking is a key for understanding the strategy of design, Material usage, manufacturing and complicity comparison of your existing product, etc

#### PROCESS AND METHODOLOGY

- Vehicle Aspects
- Weight Analysis
- Teardown Process
- Teardown Levels
- Data Mapping

#### Deliverables

Vehicle specifications, component pictures, technical data's (manufacturer, material, LWH measurement, weight, fastener details, tools used to dismantle, reference photos, removal history photo, six angle photo), weight details. Creating the exploded view of the sub system assembled sequence Complete pictures of reverse assembly of vehicle



### DIGITAL BENCHMARKING

#### OVERVIEW

Digital Benchmarking is a key for making a comparative analysis of Design & ergonomic positions with competitive vehicle in digitally etc

#### PROCESS AND METHODOLOGY

- Vehicle & scanner setup
- Deformation Analysis
- 3D Optical
- Additional scans
- Ergonomics study

#### Deliverables

Data's are delivered in .stl format, excel and pdf.



## ELECTRICAL & ELECTRONICS BENCHMARKING

### ELECTRICAL BENCHMARKING

#### OVERVIEW

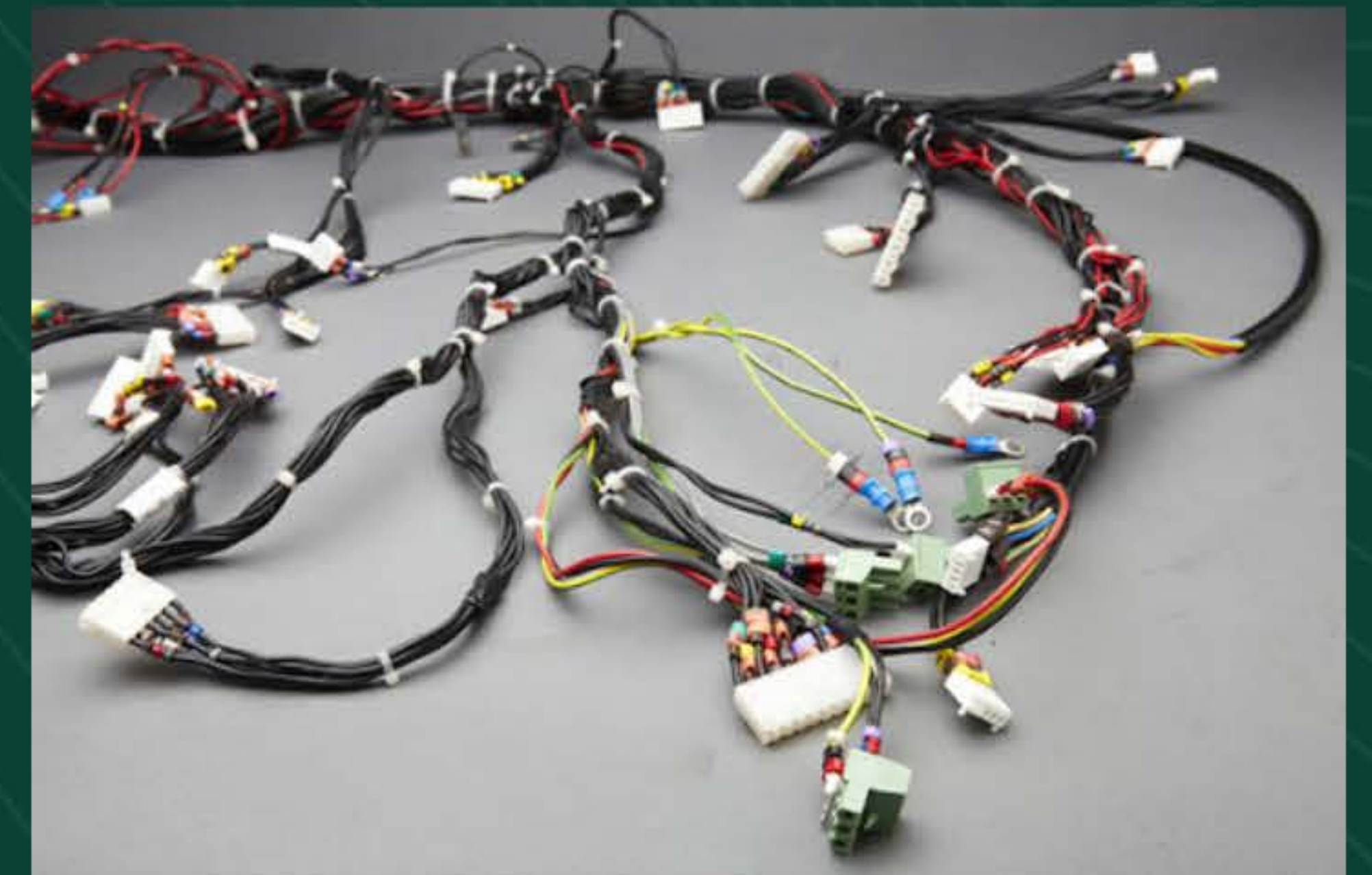
Electrical & Electronics Benchmarking is a key for Complexity management of vehicle wiring harnesses and Components: An optimized model to analyse trade-offs between product and manufacturing costs etc

#### PROCESS AND METHODOLOGY

- Details to be analyzed & reported
- Engine Compartment
- Fuse Box & Relays
- Can & Bus topology
- 2D layout & schematics

#### Deliverables

Detailed Photography (connectors, wires, fuse box details, ground details, control unit details), Bill of materials, 2d layout, schematics.



### ELECTRONICS BENCHMARKING

#### OVERVIEW

Electrical & Electronics Benchmarking is a key for Complexity management of vehicle wiring harnesses and Components: An optimized model to analyse trade-offs between product and manufacturing costs etc

#### PROCESS AND METHODOLOGY

- Teardown process
- Components detail in control units
- Data sheets of the microprocessor
- Bom of the control units
- Connector details of the control units

#### Deliverables

Detailed Photography (connectors, wires, fuse box details, ground details, control unit details), Bill of materials, 2d layout, schematics.



## VALUE ENGINEERING & VALUE ANALYSIS

### PHYSICAL BENCHMARKING ANALYSIS

#### OVERVIEW

Detailed comparison analysis of two or more vehicles with Engine power, suspension type, gearbox model, safety features, consumables, no of assemblies, total no of parts, materials usages percentage, weight comparison, etc



#### PROCESS AND METHODOLOGY

- Comparative & Feature Analysis
- Data Analytics
- Chemical Compositions
- Idea generation
- Deliverables

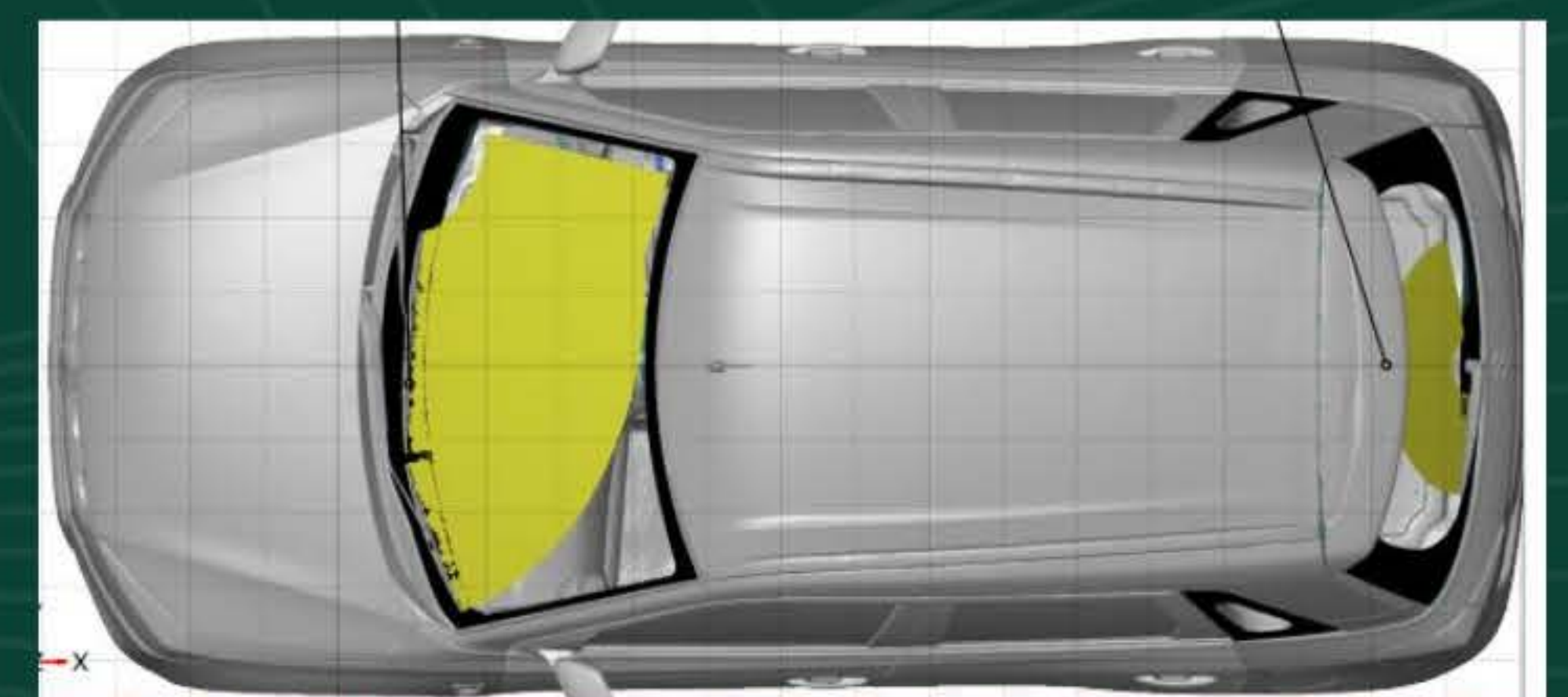
#### Deliverables

Detailed reports for Chemical Compositions, Data Analytics and Idea generation.

### VEHICLE 3D MEASUREMENT

#### OVERVIEW

Value Engineering & Value analysis is a key for Direct Material Cost Reduction, Manufacturing Process Cost Reduction. Parts Standard Cost Reduction, Supply Chain Cost Reduction and Cost Reduction through Design Innovation (CRDI). etc



#### PROCESS AND METHODOLOGY

- LWH Measurements
- Deformation analysis
- Surface Area Measurements
- DOF Analysis
- Turning Radius Analysis
- Ergonomic studies
- Driver vision angle assessment

#### Deliverables

All the detailed analyzed data are delivered in excel, pdf, jpeg & geometries.