

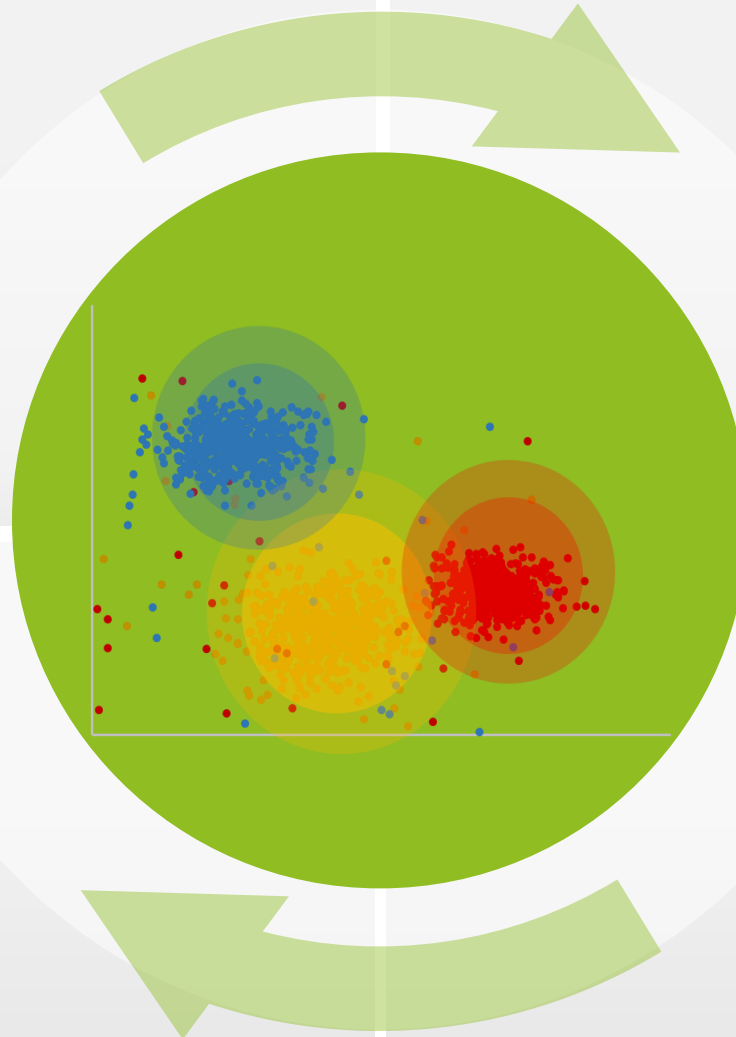
Select Product Variants for Testing

Background

- Satisfying various expectations and requirements result in many product variants
- Variants are frequently added or removed
- Since testing resources are limited, a selection has to be made
- Validation has to be realized by testing only a fraction of the portfolio

Customer benefit

- High reduction of test volume at low loss of information
- Structured limitation of tests to a controllable volume and complexity
- Fast reanalysis in case of portfolio changes
- Assignment of representatives to most efficient test cycles
- Large cost savings



Requirement

- Methodology for selection of product variants to be tested
- Justification for transfer of test results to as many variants as possible
- Compliance with predefined boundaries such as variants, applications, production sequence and ramp-up

Solution: Clustering

- Set-up of a parameter space for vehicle configurations
- Clusters of product variants are identified
- Highly loaded representatives are evaluated
 - Using simulation of load under various operation conditions
- Each of the representatives is assigned to its most challenging testing condition