

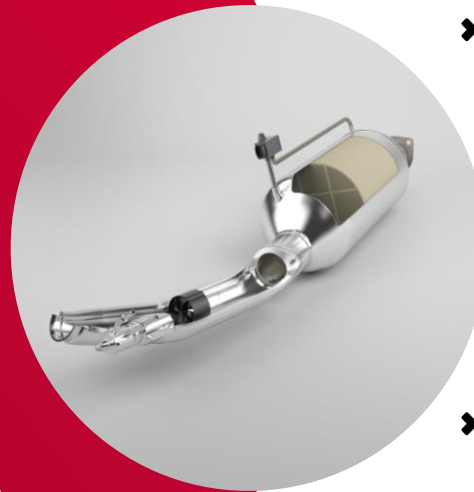
FEV Signature Solutions

FEV SCR uniformity testing

Our solutions enable quick and cost-efficient SCR uniformity testing on a component level

FEV offers

- ▶ Component level quantification of SCR uniformity to identify potential design flaws in early prototypes
 - Tests are carried out on FEV's hot gas test benches in Aachen
- ▶ Replication of engine/vehicle setup to ensure similar flow profiles (large test cell available)
- ▶ Variable adjustment of ammonia to NO_x ratio (ANR) and stable control of all relevant parameters (e.g. flow rates, temperatures, pressures and exhaust gas composition)



Why FEV

- ▶ Quick turnaround times as no engine setup/changed calibration required
 - Individual EATS interfaces can be designed and manufactured by FEV
 - Setup can be used for pass car as well as truck/HD applications
 - Quick variation of mixers, different injectors or other sensitivity studies possible
- ▶ Lower cost compared to engine test bench due to unique NO_x generation on hot gas test bench
 - More cost efficient compared to adding NO_x from bottles or trailers
- ▶ Flexible and minimal invasive setup to sample over a cross-section area
 - Resolution can be freely adjusted depending on catalyst size

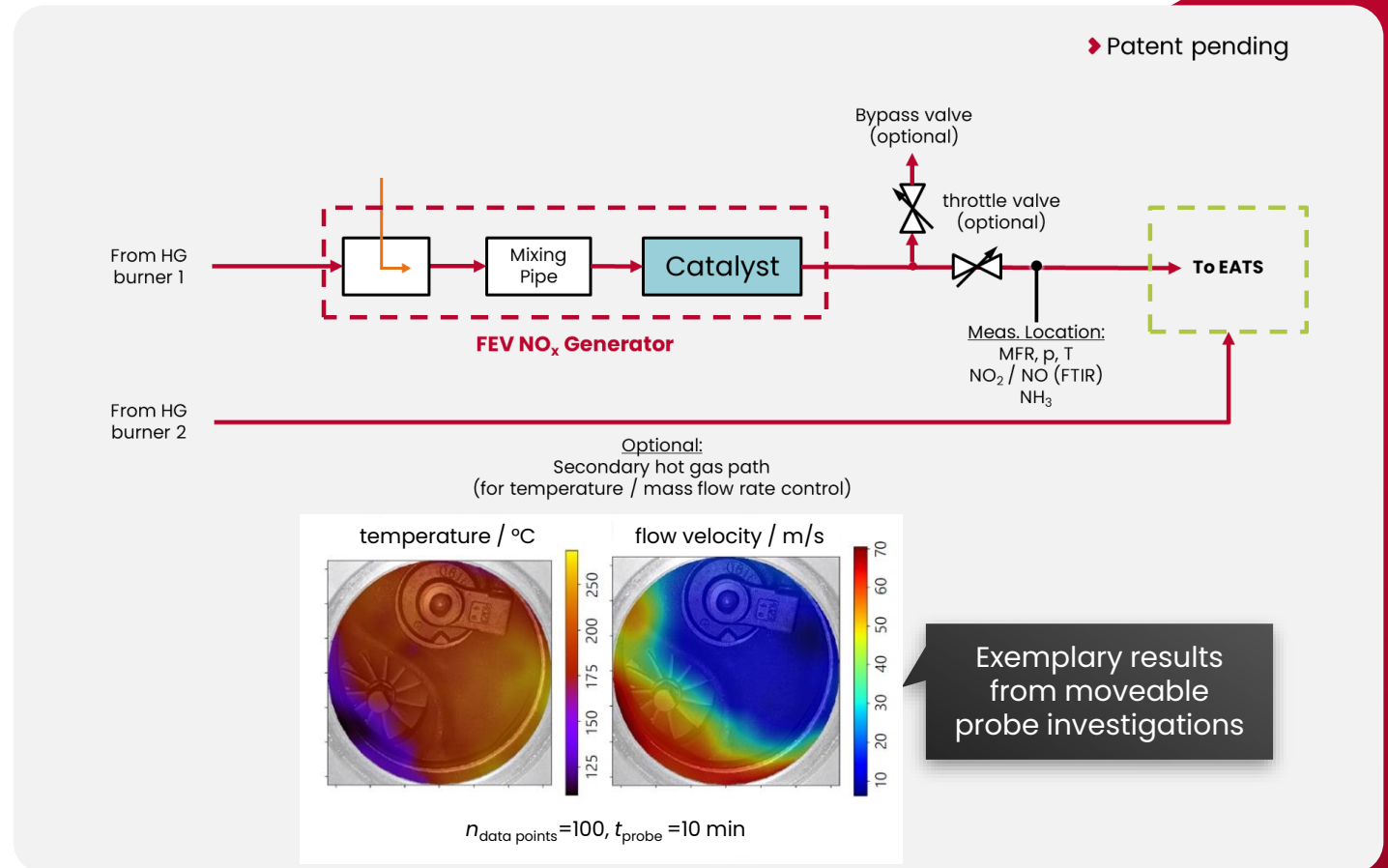
Typical SCR uniformity characterization project

ALWAYS MEETING CUSTOMER NEEDS

- Quantification of NO_x and/or NH₃ uniformity downstream of a SCR catalyst
- Variation of boundary conditions

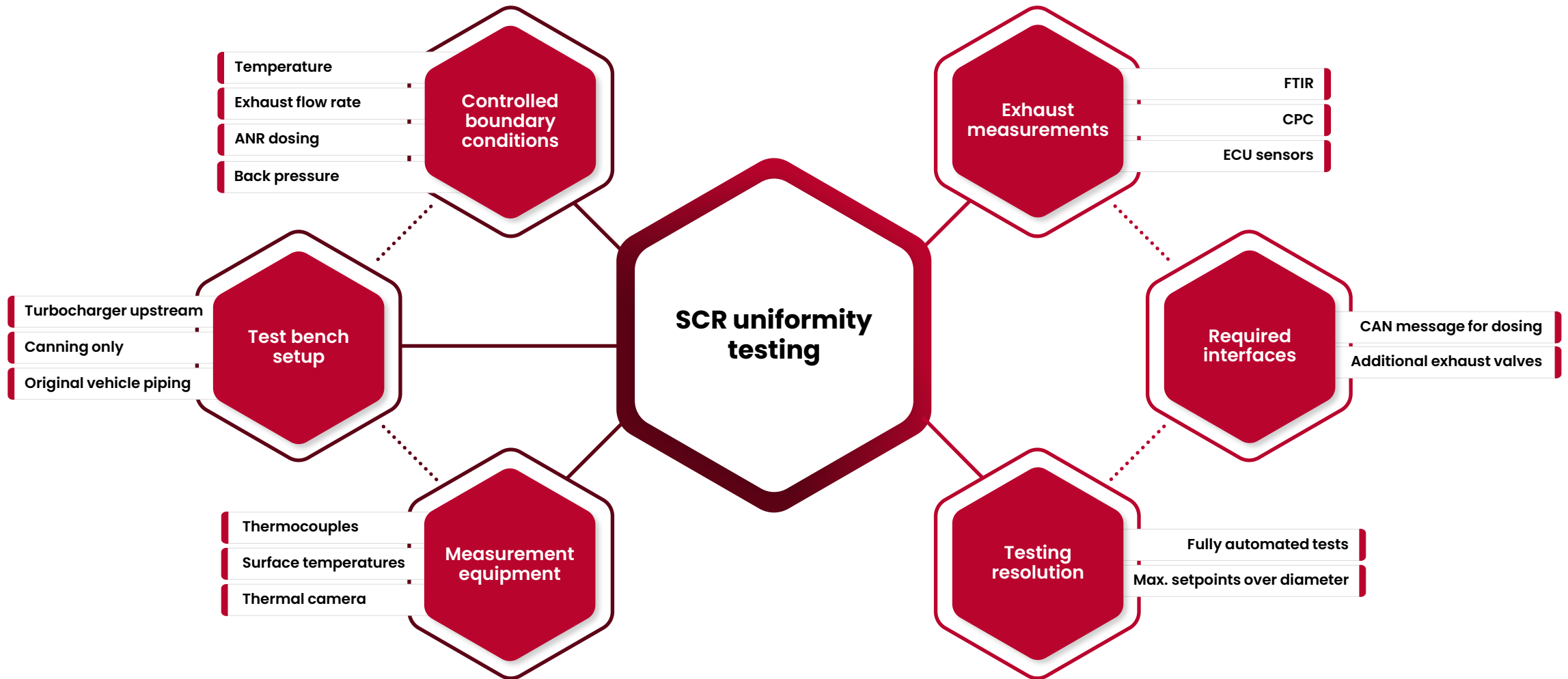
FEV responsibility

- Integration of EATS into FEV's test environment (mechanical interfaces, CAN messages, AdBlue injection, installation of moveable probe for gas extraction)
- Running the EATS in a fixed set of boundary conditions (e.g. 8 points with different flow rates, temps and ANR dosing)
- Post-processing of measurement data as a uniformity plot
- Recommendations of design and best performing solution



FEV SCR uniformity testing

TESTING OVERVIEW



Get in touch with us for further information



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