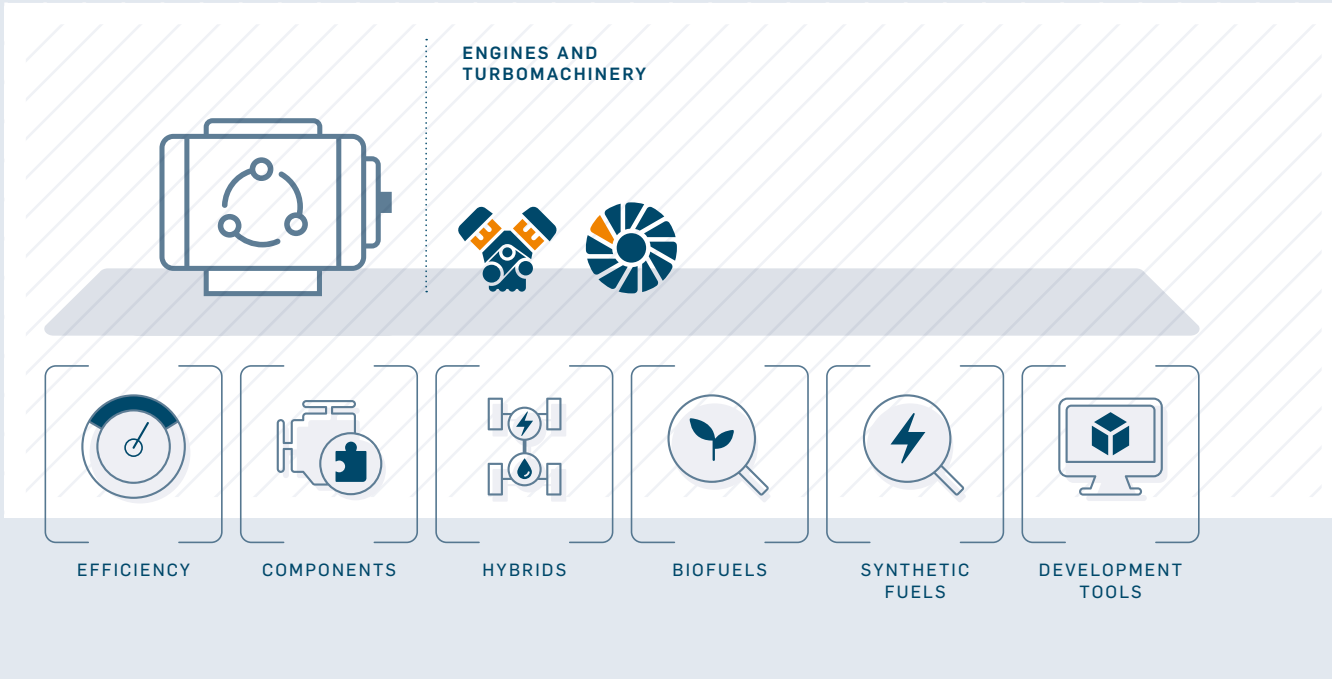


System

PLANNING GROUP 1



COORDINATOR

Dr. Peter Riegger,
Rolls-Royce Solutions

PROJECT MANAGEMENT

Ralf Thee, FVV

PG1 ONLINE



THEMIS

RESEARCH PRIORITIES

Planning group 1, »System«, is dedicated to the following topics:

- Future engine concepts, hybridisation
- Alternative fuels
- Digitalisation in the powertrain
- Life-cycle analyses

And tackles the following lines of research/focuses:

- System analysis of new technologies, alternative powertrains and fuels
- Recovering lost energy
- (Ultra-low) temperature management
- Control, regulation, sensors
- Turbocharging
- Large and nonroad engines

PG 1 | RESEARCH PROJECTS



NO TITLE // FUNDING ORGANISATION // DURATION

PROJECT COORDINATOR

Planned projects

M0521	Pre-Ignited Flame Propagation in Gas Engines	Dr. Markus Wenig , Winterthur Gas & Diesel
M1021	Data-based Monitoring of Powertrain Components	Dr. Christian Jörg , Hitachi Astemo Europe
M1320	On-Board Emission Conformity Monitoring (OBECOM) // CORNET	Dr. Heike Többen , Eberspächer Exhaust Technology
M1321	Condensate Formation in Exhaust Systems	Dirk Vierkotten , Pierburg
M1521	Distributed Thermal Hybrid Powertrain Testing // FVV-EM	Dr. Marcus Gohl , APL Automobil-Prüftechnik Landau
M1620	AI Route Optimisation // BMWi/AiF	Dr. Markus Wenig , Winterthur Gas & Diesel
M1621	AI4Fuels	Dr. Michael Bippes , Volkswagen
M1820	Maneuvering with Hybrid Ships // BMWi/AiF	Dr. Udo Schlemmer-Kelling , FEV Europe
M1920	Hybrid Drives for Alternative Fuels // BMWi/AiF	Dr. Udo Schlemmer-Kelling , FEV Europe
M1921	Axial Turbine T/C for Lean Burn Concepts	Marc Sens , IAV
M3220	Ejector-Bypass TC // BMWi/AiF	Dr. Tom Steglich , IAV
M3320	New Hydrogen Storage Concept	Kathrin Giefer , Ford-Werke

Ongoing projects

1312	48V Mild Hybrid with Semi-Homogeneous Diesel Combustion // BMWi/AiF // 01-01-2018 to 31-05-2022	Dr. Achim Lechmann , IAV
1321	Working Cycle Dissolved Turbine Efficiency in Turbochargers // FVV-EM, DFG // 01-10-2018 to 30-09-2022	Dr. Mathias Vogt , IAV
1339	Calibration and Validation of Self-learning System Controllers // FVV-EM // 01-03-2019 to 28-02-2022	Prof. Peter Prenninger , AVL List
1342	Sensor Concept for E-Fuels // FVV-EM // 01-02-2019 to 28-02-2022	Dr. Bernd Becker , IAV
1355	Powertrain 2040 // FVV-EM // 01-04-2019 to 30-09-2021	Dr. Thorsten Schnorbus , FEV Europe
1382	Lubrication Large Bore Engines II // FVV-EM // 01-05-2020 to 30-04-2022	Dr. Tobias C. Wesnig , M. JÜRGENSEN
1384	H ₂ in the Gas Network // FVV-EM // 01-01-2020 to 31-12-2021	Dr. Dietrich Gerstein , DVGW Dr. Ulrich Kramer , Ford-Werke
1385	T/C for Lean Burn Concepts // FVV-EM // 01-04-2020 to 31-10-2021	Marc Sens , IAV

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NO	TITLE // FUNDING ORGANISATION // DURATION	PROJECT COORDINATOR
1394	Modelling of Pre-ignition in Gas Engines // FVV-EM, CORNET // 01-04-2020 to 31-03-2022	Dr. Markus Wenig, Winterthur Gas & Diesel
1407	Zero Impact Vehicle Emissions (Conceptual Study) // FVV-EM // 01-09-2020 to 31-08-2021	Prof. Dr. Kurt Kirsten, APL Automobil-Prüftechnik Landau
1410	SocioMotion // FVV-EM // 01-11-2020 to 31-10-2021	Prof. Dr. Thomas Garbe, Volkswagen
1428	Modular Hybrid Powertrain // FVV-EM // 01-01-2021 to 31-12-2022	Dr. Veit Held, Opel Automobile
1429	CO ₂ -neutral Long-haul Heavy-duty Powertrains 2050 II // FVV-EM // 01-04-2021 to 31-03-2023	Herbert Schneider, ISUZU MOTORS
1433	HyFlex ICE // FVV-EM // 01-03-2021 to 28-02-2023	Marc Sens, IAV

Completed projects

1305	Exhaust Gas Aftertreatment Before Turbine // FVV-EM // 01-05-2018 to 30-06-2021	Dr. Frank Bunar, IAV
1314	TC Model Parameterisation // BMWi/AiF // 01-01-2018 to 30-06-2020	Dr. Panagiotis Grigoriadis, IAV
1316	Exhaust Gas Composition at Low Temperatures // FVV-EM, FVV-EM // 01-07-2018 to 31-10-2020	Dr. Michael Becker, Pierburg
1327	Lubrication Large Bore Engines I // FVV-EM // 01-09-2018 to 31-10-2020	Dr. Tobias C. Wesnig, M. JÜRGENSEN
1363	Method Hybrid Testing // FVV-EM // 01-07-2019 to 30-06-2021	Dr. Marcus Gohl, APL Automobil-Prüftechnik Landau
1430	CO ₂ Effects from Electricity Demand // FVV-EM // 01-10-2020 to 31-03-2021	