



FuVEP

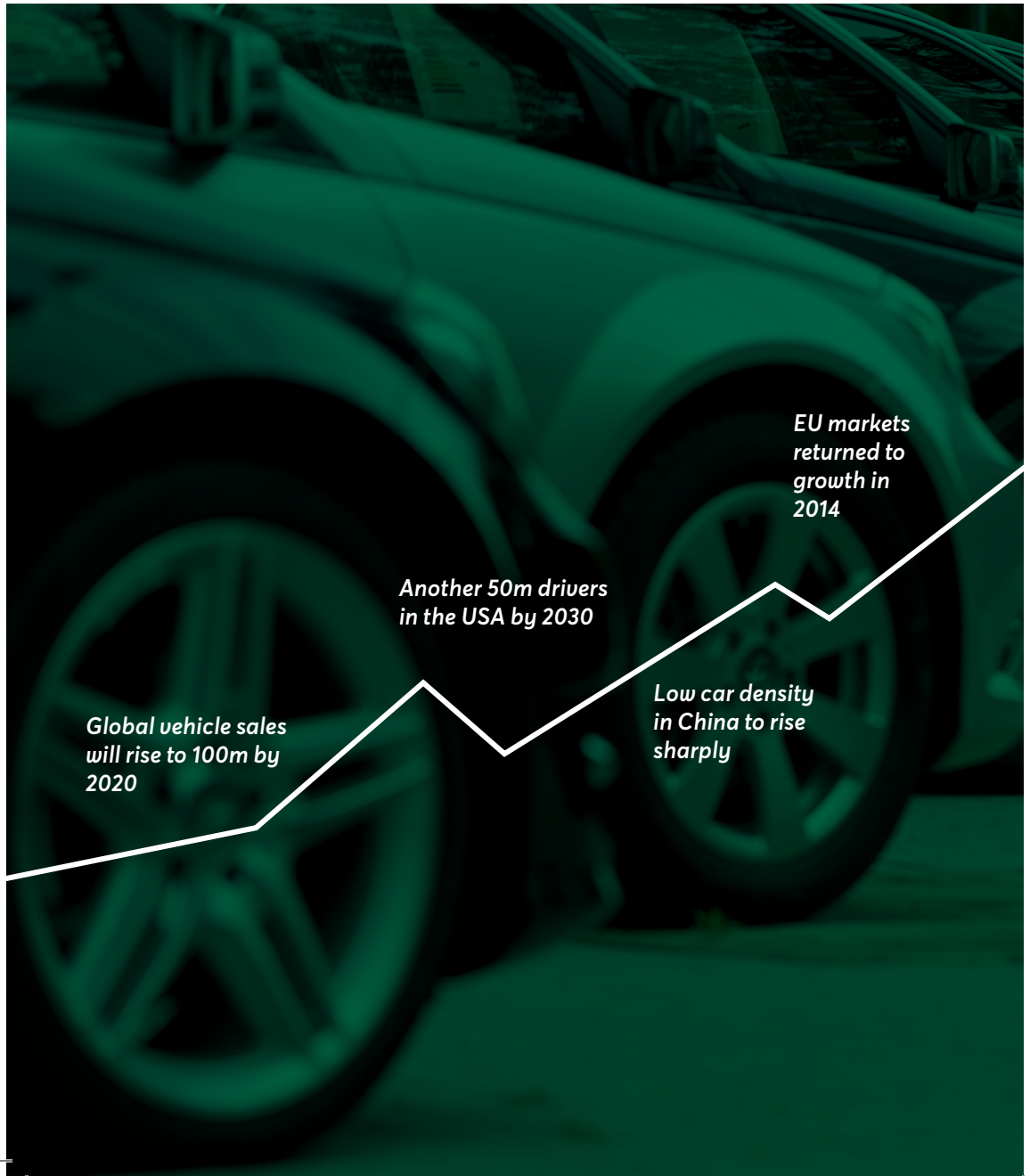
FUTURE VEHICLE
ENVIRONMENTAL
PERFORMANCE



**We help
researchers
and the industry
create a better
automotive
future**

2020

We share our vehicles' future



As the global automotive industry

grows

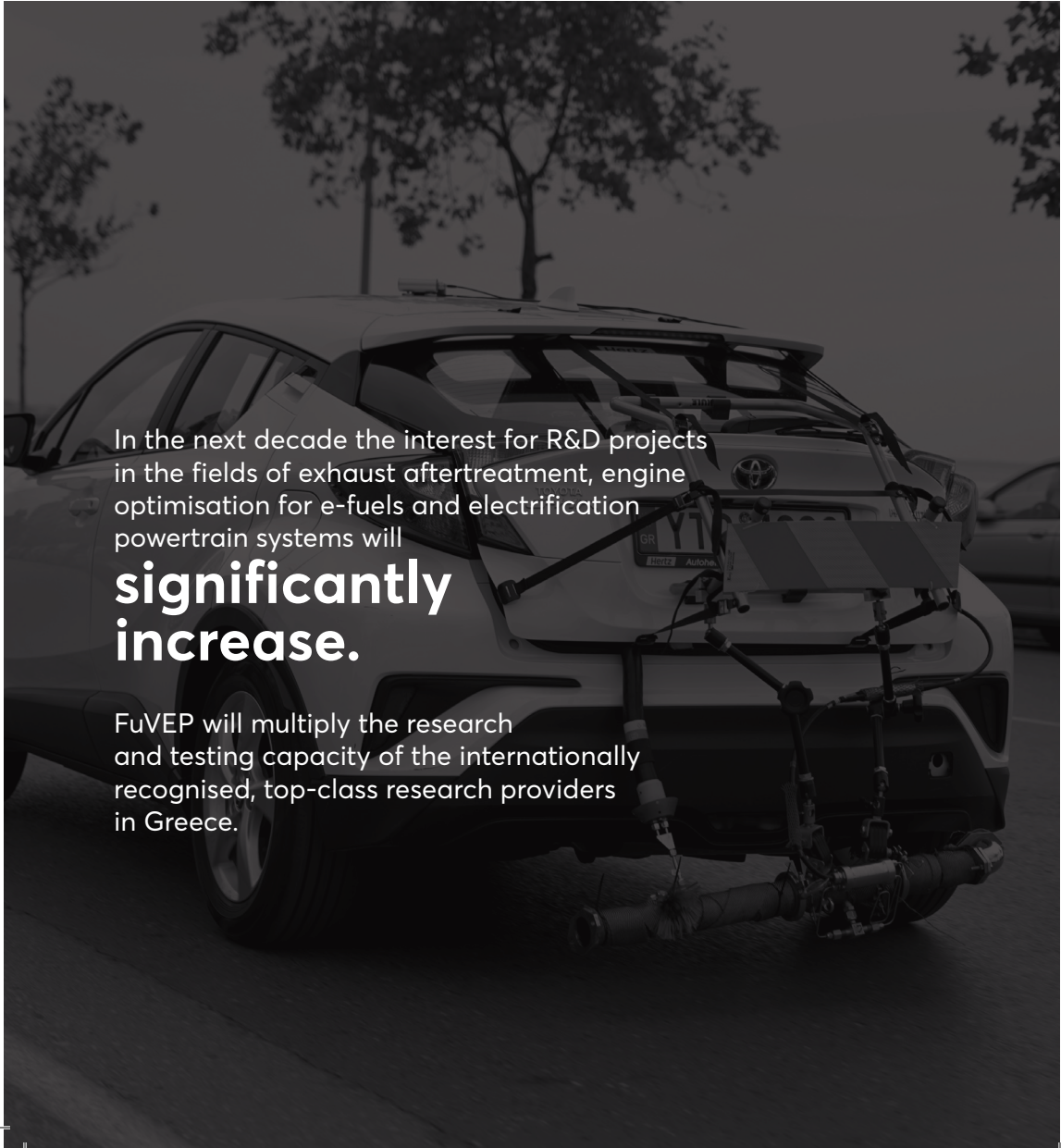
it becomes smarter and more

environmentally

conscious.

OEMs prioritise R&D and engineering
to address environmental regulations
in the most cost-effective way.

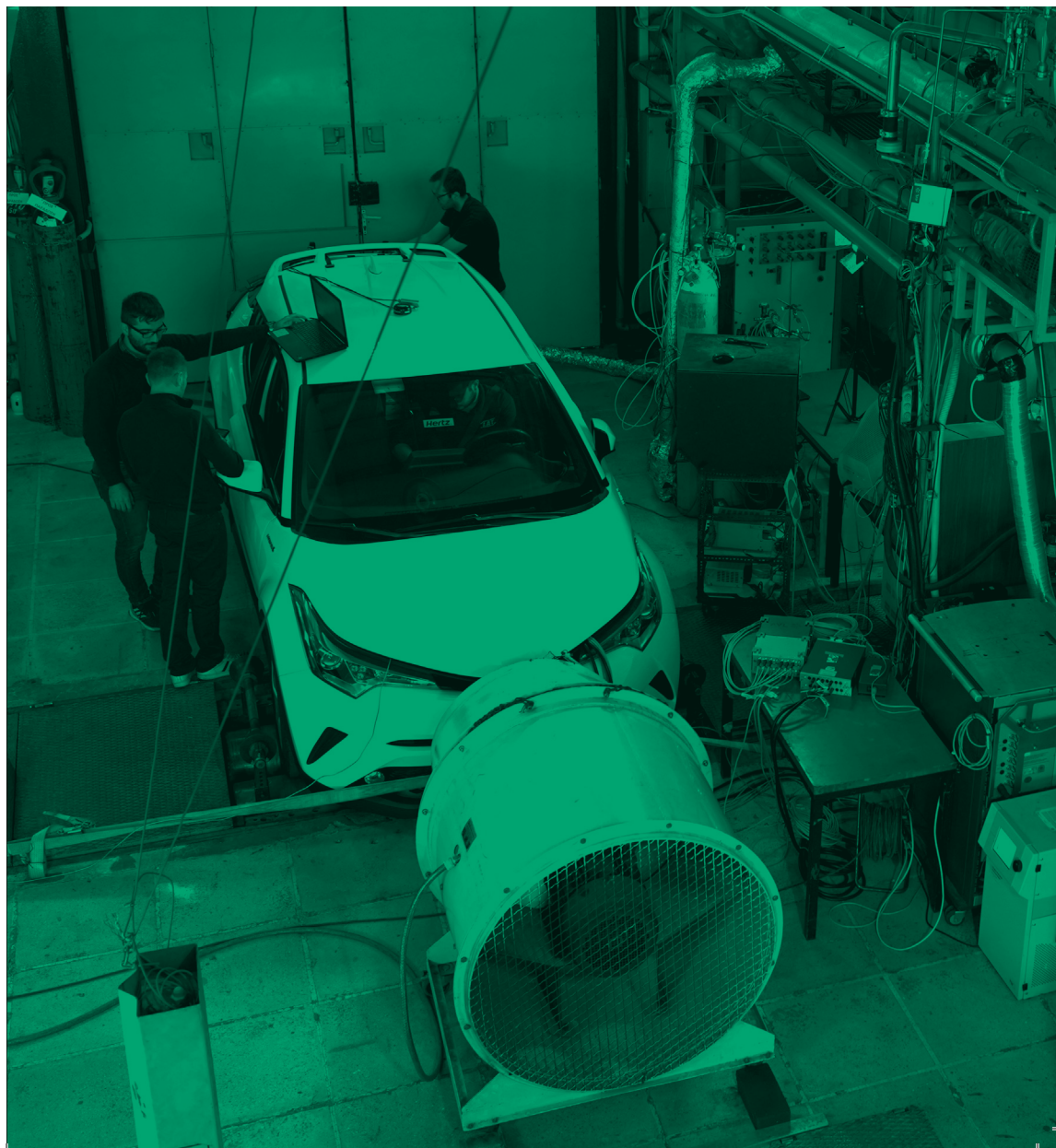
So let's design them well



In the next decade the interest for R&D projects in the fields of exhaust aftertreatment, engine optimisation for e-fuels and electrification powertrain systems will

significantly increase.

FuVEP will multiply the research and testing capacity of the internationally recognised, top-class research providers in Greece.



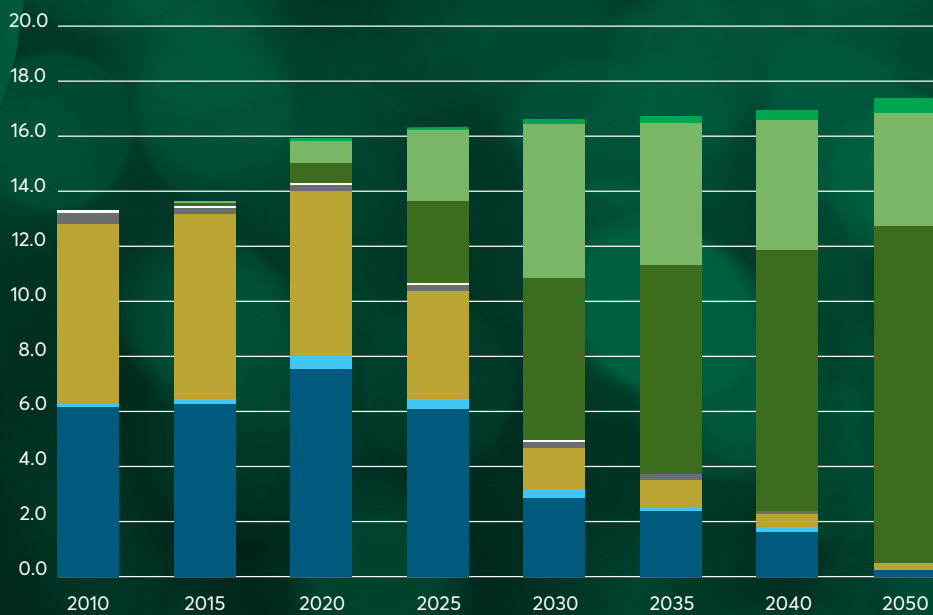
And get ready for electric

In the coming decades electric and hybrid vehicles will completely

dominate.

FuVEP will expand its range of testing and modelling services accordingly from full emissions measurements and power flow analyses to a whole range of chassis-dyno and RDE testing, electrified powertrain design and battery performance optimisation.

EU28 passenger cars sales structure projection (million vehicles)



source: Emisia S.A.

We are a network of experts

ισχύς εν τη ενώσει

unity makes strength





LABORATORY OF APPLIED THERMODYNAMICS (LAT)
Aristotle University of Thessaloniki



Εθνικό Μετσόβιο Πολυτεχνείο
Εργαστήριο Τεχνολογίας Καυσίμων και Λιπαντικών

**LABORATORY OF FUEL TECHNOLOGY
AND LUBRICANTS (LFTL)**
National Technical University of Athens



**ΠΑΝΕΠΙΣΤΗΜΙΟ
ΔΥΤΙΚΗΣ ΜΑΚΕΔΟΝΙΑΣ**
ΕΡΓΑΣΤΗΡΙΟ ΘΕΡΜΟΔΥΝΑΜΙΚΗΣ
ΚΑΙ ΘΕΡΜΙΚΩΝ ΜΗΧΑΝΩΝ

**LABORATORY OF THERMODYNAMICS
AND THERMAL ENGINES (LTTE)**
University of Western Macedonia

The founding partners work closely together with highly esteemed spin off companies, leading software engineering companies, the automotive industry and OEMs, technology associations, standardisation bodies and international institutions.

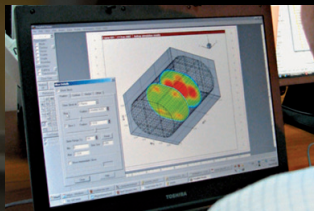
Our goal

Support researchers develop new concepts and put them to the test

- Basic research in internal combustion engines
- Pollution control systems
- Development of new fuels and lubricant technologies
- Innovative technologies for propulsion systems with an emphasis on hybridisation and electrification



Combustion research



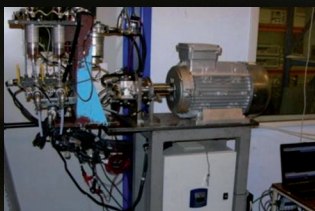
Aftreatment systems simulation



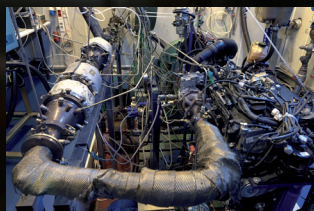
RDE testing



Chassis dyno testing for vehicle emissions and fuel efficiency



Fuel injector test rig



Engine benches, fully equipped for emissions and aftertreatment testing as well as for measuring equipment development

An ecosystem of partners and clients

Long-term R&D partnerships with the automotive industry and universities

A number of international companies, including Stoneridge (USA), Toyota Motor Europe and AVL Graz, have expressed their interest to support FuVEP with direct funding, projects and contracts. They will further enhance FuVEP's partners' track record of successful performance in working with clients like Daimler, Peugeot-Citroen (PSA), Honda, Concawe, the European Commission and other well-known companies, associations and public bodies.

FuVEP coincides with the development of the largest Greek Science and Technology Park, Thess INTEC, which already has over 70 local industries eager to combine resources, skill, know-how and experience. FuVEP has an exciting role to play at Thess INTEC and plans are underway to make its mark there.

FuVEP

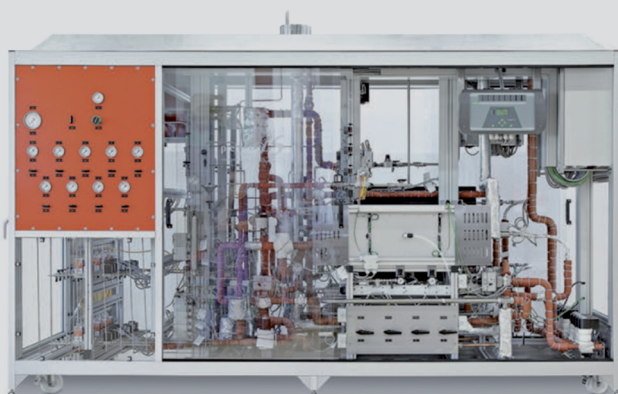
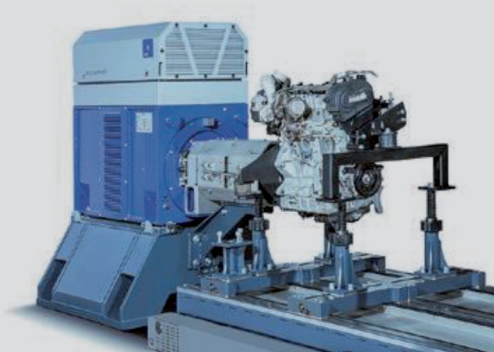


State of the art technologies

To be able to provide the best services we regularly review and update our equipment. Our next round of equipment updates include the following three items:

- New chassis dyno offering testing on passenger cars and light commercial vehicles (2WD, 4WD), over legislated driving cycles, non-legislated driving cycles or custom tests, simulated RDE tests with a full measurement of regulated and non-regulated pollutant emissions in diluted and raw exhausts.
- A new engine bench able to accommodate high powered engines from passenger cars and light commercial vehicles, capable for simulation of fully transient operation (driving cycles, simulated RDE and custom tests) with tailored measurements of emissions.
- The new synthetic gas bench will offer testing under fully controlled conditions in terms of flow rate, temperature, gas composition and simulation of engine transient operation during driving cycles.

All these will be integrated into the already rich existing equipment to expand testing capabilities of FuVEP (3 engine test cells, one axle chassis dyno, custom SGB, ultra fast analysers, conventional analysis systems, FTIR, PM/PN instrumentation, particle size resolved measurement and many other.



FuVEP

FUTURE VEHICLE
ENVIRONMENTAL
PERFORMANCE

**Join us at FuVEP
and pioneer with us
for a greener global
automotive future**

ARISTOTLE UNIVERSITY
OF THESSALONIKI
PO BOX 458, 54124
THESSALONIKI, GREECE

T +30 2310 996047
E INFO@FUVEP.COM
WWW.FUVEP.COM



European Union
European Regional
Development Fund

HELLENIC REPUBLIC
MINISTRY OF
DEVELOPMENT AND INFRASTRUCTURE
SPECIAL SECRETARIAT FOR
ERDF & ERF PROGRAMS
MANAGING AUTHORITY OF ERDF

EPAnEK 2014-2020
OPERATIONAL PROGRAMME
COMPETITIVENESS
ENTREPRENEURSHIP
INNOVATION



Co-financed by Greece and the European Union