

ESCALATE

Powering European Union Net Zero Future by Escalating
Zero Emission HDVs and Logistic Intelligence

ESCALATE-HEDEF 5

KÜME 5: İKLİM ENERJİ MOBİLİTE KÜMESİ

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This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101096598.

Funder: EC

Duration: 42 Months

Budget: 19M€

In line with the European 2050 goals ESCALATE aims to demonstrate high efficiency zero-emission powertrain for long-haul applications that will provide a range of 800 km without refueling/recharging and cover at least 500 km average daily operation (6+ months) in real conditions. ESCALATE will achieve this by following modularity and scalability approach starting from the β -level of hardware and software innovations and aiming to reach the γ -level in the first sprint and eventually the δ -level at the project end through its 2 sprint-V-cycle.

ESCALATE in a NUTSHELL

- **ESCALATE** consortium has brought together the **collaborative efforts of 37** partners from **13 countries**.
- **8 out of 37** are from **Türkiye**.

→BMC

→DHL

→FEV TR

→FORD OTOSAN

→MERCEDES BENZ

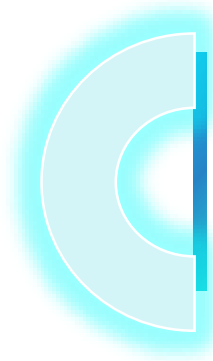
→ORTEM

→TEKFEN

→TUBITAK

(in alphabetic order)





Assoc.Prof. AHU ECE HARTAVI KARCI
United Kingdom
SCIENTIFIC & TECHNICAL COORDINATOR



ULRIKE GOHIL
Germany
FINANCIAL COORDINATOR



Dr. THORSTEN SCHNORBUS
Germany
COORDINATOR



A

Increase
component
efficiency
(up to **10%**)

B

Develop highly
standardizable,
ingenious,
scalable and
modular eco-
designed
e-powertrain
components

C

Flexible
platforms for
battery, fuel cell
and range
extender trucks
(40-44t)

D

Data-driven
algorithms, tools
and interfaces
(e.g. fleet
management
and PdM)

E

3 High-speed
charging and
H2 refuelling
solutions.

1

2

3

4

5

F

Bridge the
physical and
digital worlds
(5 modular
digital twins)

6

G

Cost-effective
solutions
(10%) to increase
market
penetration of
innovative
technologies!

7

CL5 aims

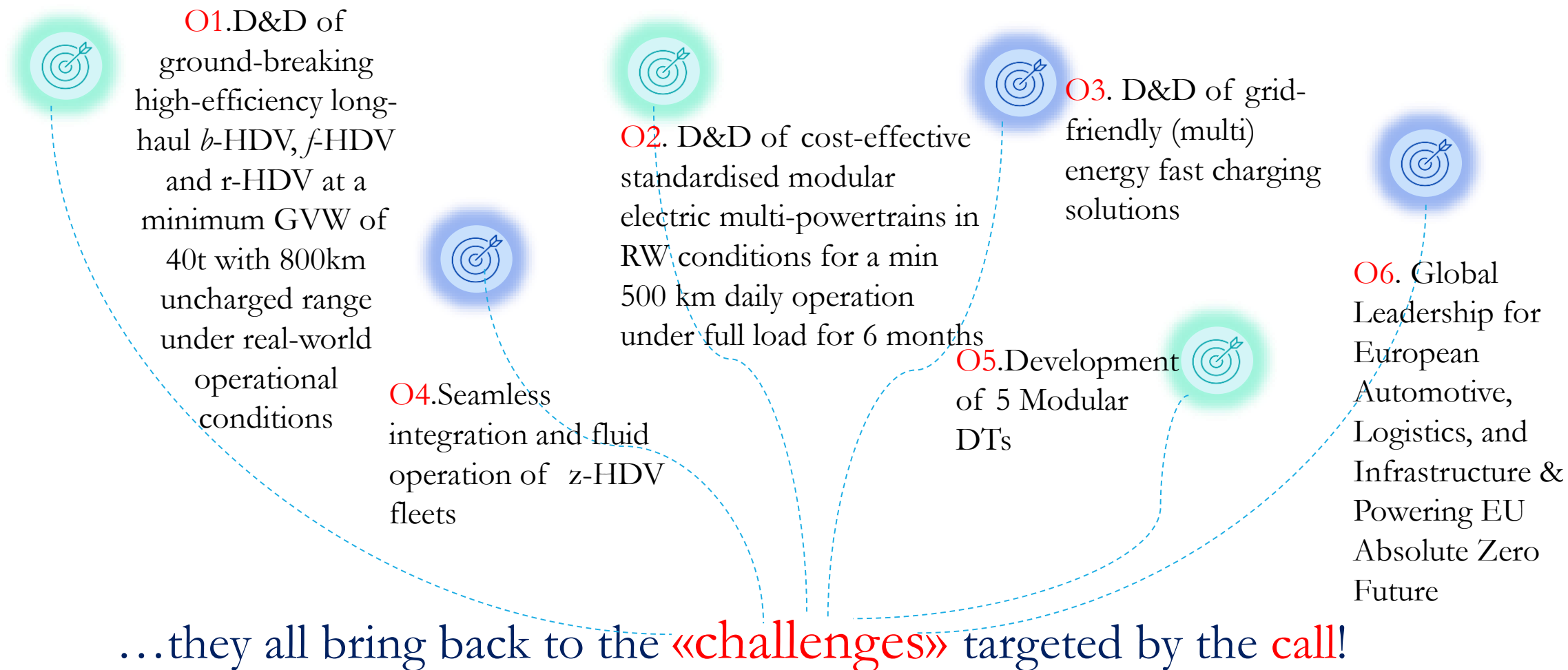
...to fight climate change ...by making the
transport sectors more **climate and**
environment-friendly, more efficient and
competitive, smarter, safer and more
resilient

+

Expected Outcomes of the
CL5-2022-D5-01

...within the **scope** of the call!

...are formulated in such a way that...



8 PILOTS

1 MW
Fast Charger


KEM

Green green
fix multi-fuel
station

ENGIE

MOBILE-MODULAR
H2
FILLING STATION

TEKFEN



Range Extender
Long-Haul Truck
(R)

SISU




Fuel Cell
Long -Haul Truck
(R)

BMC



Battery
Electric
Regional Truck
(R)

MBT



Refrigerator
Solar Battery
Truck
(R)

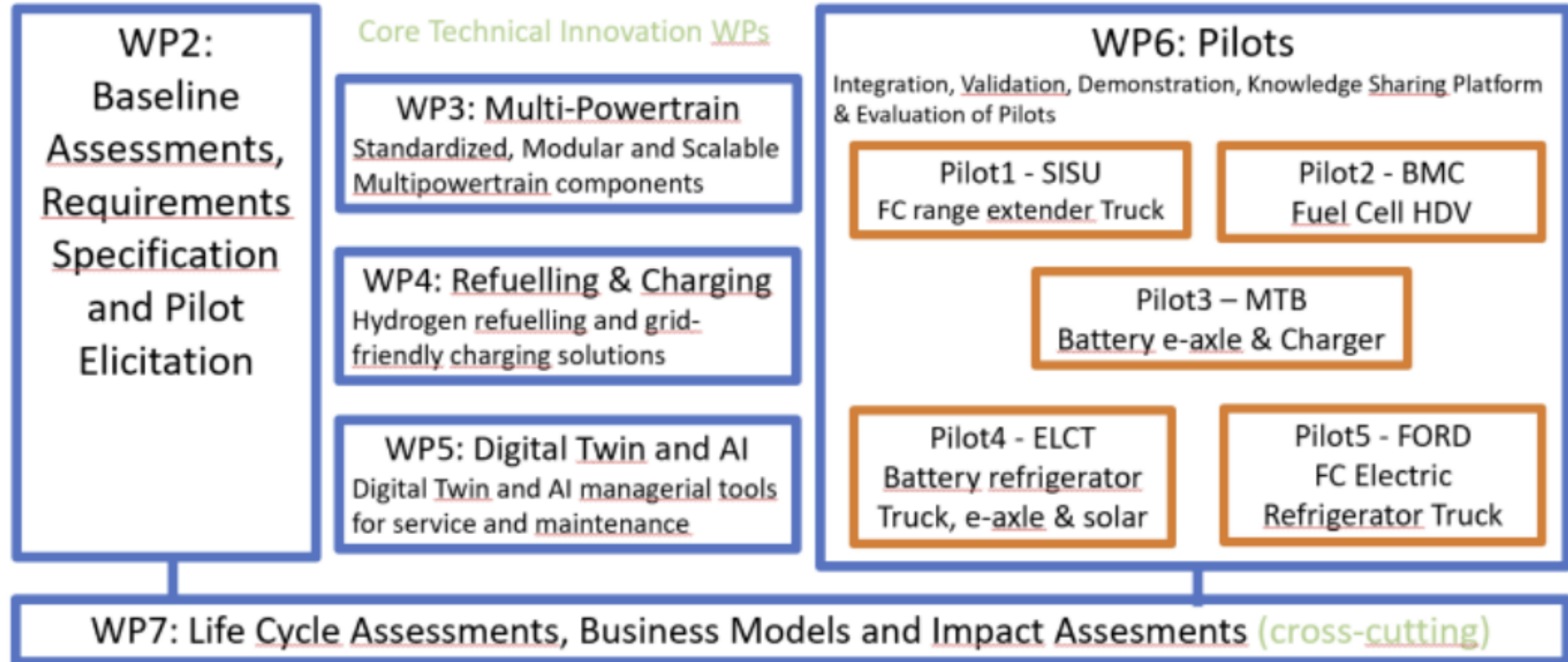
ELCT



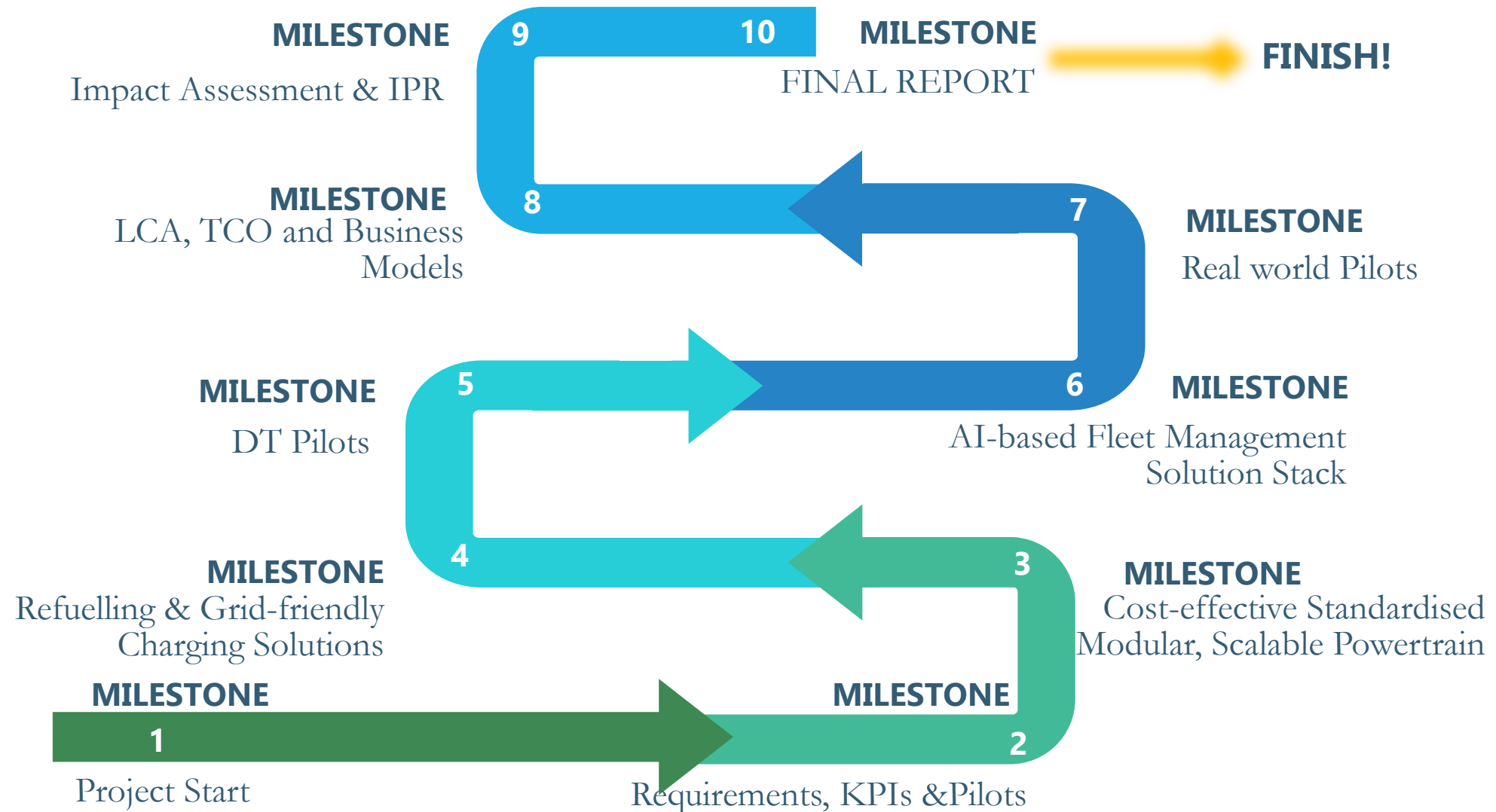
Refrigerator
Fuel Cell
Long-Haul
Truck
(V)

FORD





MILESTONES



A large, semi-transparent image of a modern university building with a curved facade, surrounded by greenery and a body of water, serving as a background for the left side of the slide.

Thank you!



TÜBİTAK

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