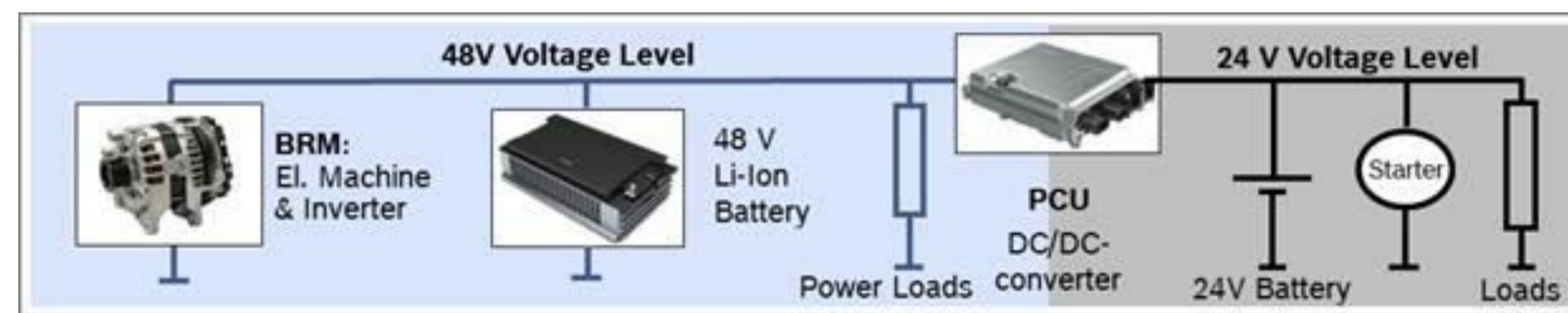


Hybrid control for integration into predictive energy management

Challenges and solutions:

The challenge of reducing fuel consumption and emissions could be tackled recovering vehicle kinetic energy by means of hybrid systems. Different levels of hybridization can be considered in order to find the correct trade off between cost and benefit.



IMPERIUM's contributions:

The IVECO vehicle has a mild-hybrid system on board, the 48V e-machine replaces the standard alternator. Although the fuel consumption reduction potential is lower compared to full hybrid variants, the benefits from easy integration and faster time to market could make the technology interesting.

IVECO integrated the mild hybrid predictive energy management into the vehicle and simulations to demonstrate the potential of fuel consumption reduction.

Impact / what's next:

At the end of the IMPERIUM project, a TRL 7 (system prototype demonstration in operational environment) was achieved. Based on the good results the mild hybrid contents could be considered for next development.