

STRONG EXPERTISE

along the value chain

www.lowreemotors.eu



**Mondragon
Unibertsitatea**

Faculty of
Engineering



Rare earth reduction in
high-performance permanent
magnet electric machines

Contact & Coordination

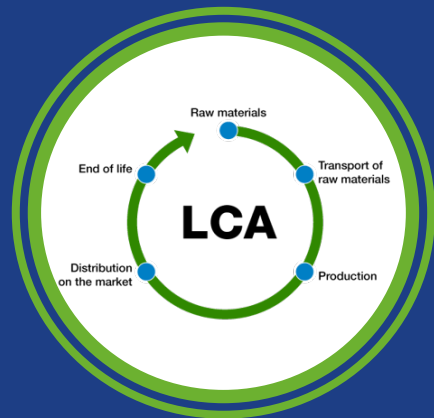
Dr. Gaizka Ugalde Rosillo
gugalde@mondragon.edu

Mondragon University
<https://www.mondragon.edu>

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The main goal of LowReeMotors is to look for alternatives to the neodymium magnets currently used in electric vehicle engines. Neodymium (Nd) is considered a critical material for Europe mainly for two reasons: the raw material is almost entirely found in China, and it is estimated that demand will exceed production in a short span of time.



FINDING ALTERNATIVES for rare earth materials

The implementation of alternatives in the composition of the magnet, such as alloys containing cerium (Ce), could alleviate the need for raw materials of Nd by up to 6-10%.



ECO-DESIGN for a new generation of electric machines

Designing, manufacturing and testing two different electric machines in a holistic approach that will replace existing equivalent Nd-based motors.