

Project idea: Replacing primary aluminium with recycled alloys for sustainable cast structures

Call area: XXX

Contact

Company/Institute:	MD Material Design AB
Contact person (Name & Function):	Paul Jonason, Manager
E-Mail:	paul.jonason1@gmail.com ; pjonason@mdmaterialdesign.se
Telephone Number:	0046 (0)709-265002

Project Description

By upgrading increase the as cast strength and ductility of Recycled Aluminium Cast Alloys for sustainable structures

Upgrading implies both complementary alloying and melt cleaning, with the former being focus for this project

Project Objectives

Increase the as cast properties of recycled alloys close to hardened primary ref alloys

Project idea: Replacing primary aluminium with recycled alloys for sustainable cast structures

Call area: XXX

Problem, State of the Art, and Envisioned Solution

Problem

Recycled alloys properties are considered lower than primary alloys due to accumulated Fe and oxide impurities and can not offer equal component performance to primary material

Recycled alloys implies significant CO₂ reduction

State of art Current structural alloys have limited availability, as cast properties but an improvement potential

Solution

Reach primary properties of recycled alloys by compositional upgrading and fulfill requirements for structural castings

Project idea: Replacing primary aluminium with recycled alloys for sustainable cast structures

Call area: XXX

Our Partners, Our Know-How...

Possible partners covering the development chain

RISE, Luleå University	Research institutes
Stena Aluminium	Material supplier
Comptech AB	Casting Equipment
Zeekrtech Europe	Vehicle manufacturer
MD Material Design AB	Research & Coordination

We are looking for...

OEMs Using and developing Structural aluminium castings

Research institutes specialised in aluminium development using digital and analytical tools as XRD, APT etc

Material suppliers of primary and recycled aluminium