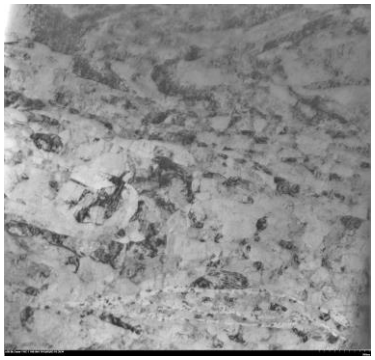
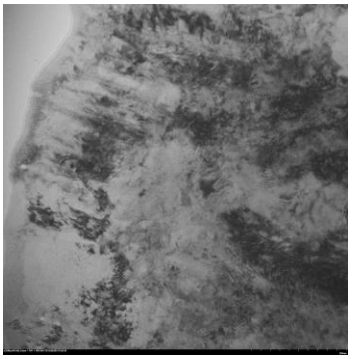
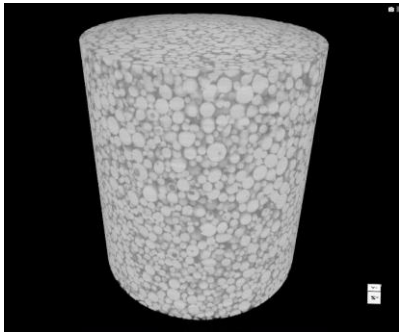
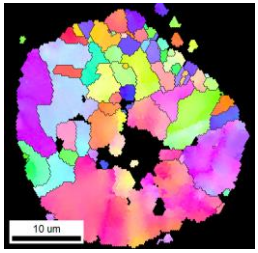
Powder charecterization
TEM, EBSD and uCT on powder

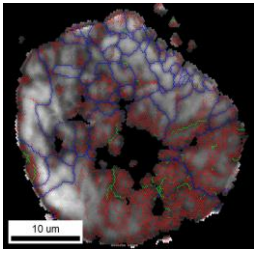




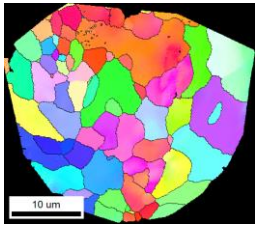


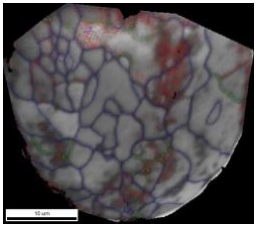
GA 316



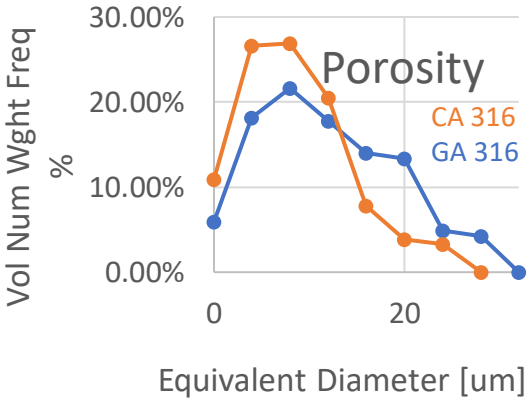


CA 316



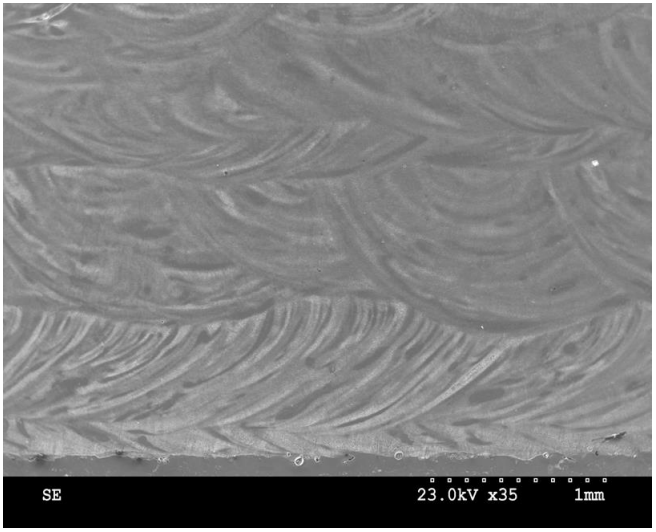


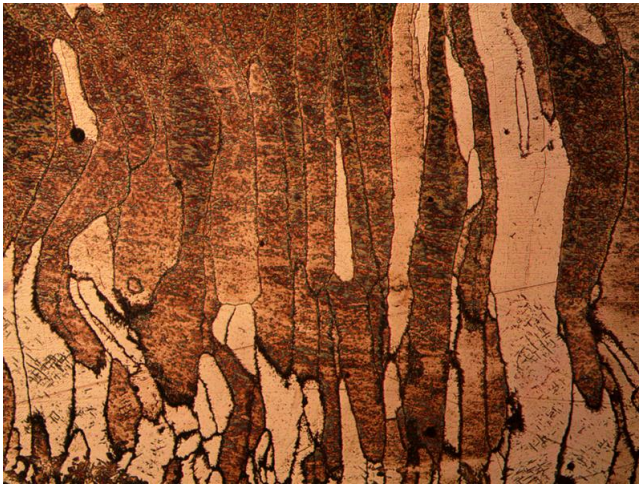
uCT scan
Particle

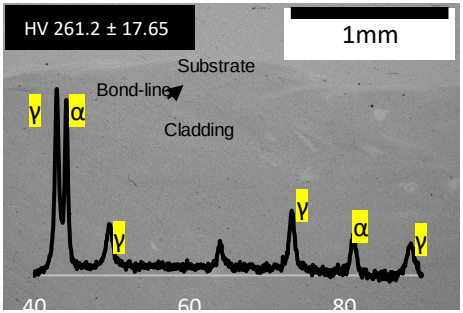


Material optimization using Metal 3D printing
Insitu Alloy developement

Direct Metal printer
808nm 1KW Laser







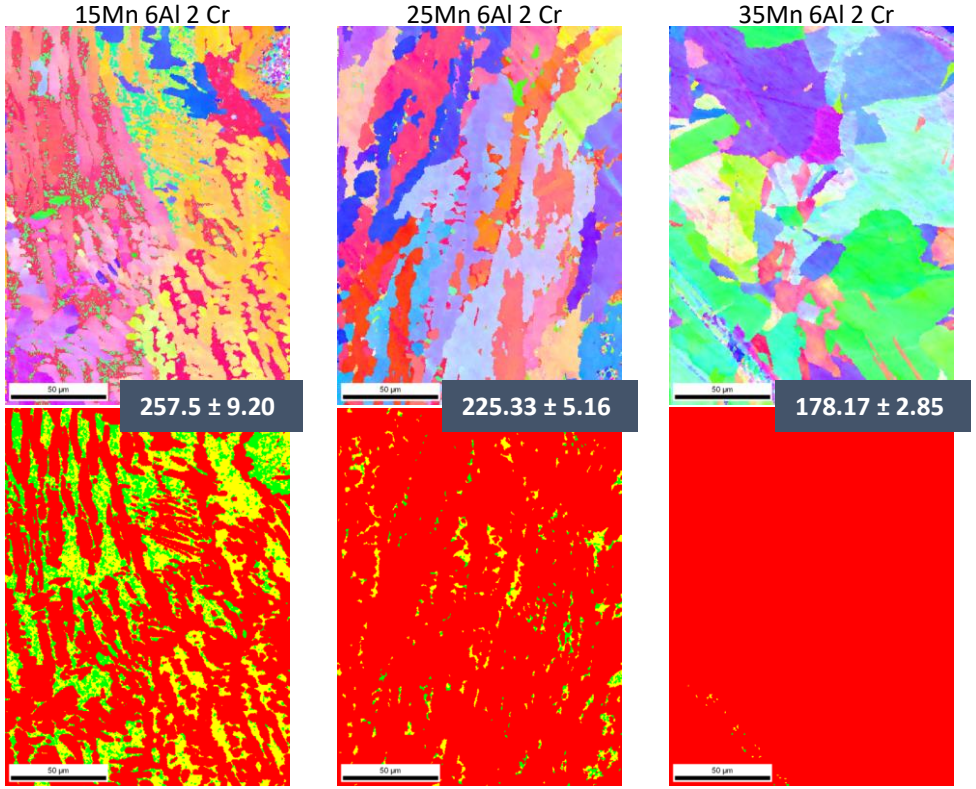
XRD data of dual phase steel alloy

EBSD analysis showing IPF and phase determination

IPF & Phase map

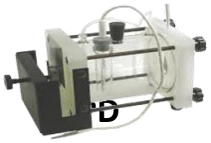
25kV
90nm step size

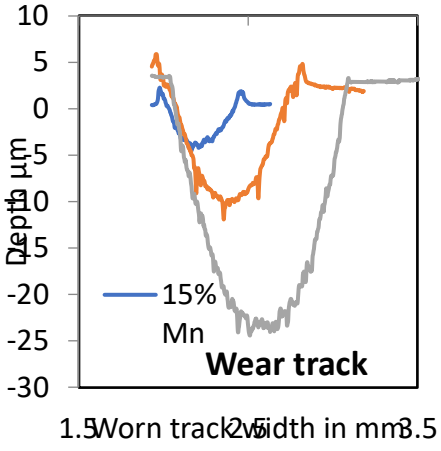
Red – γ Austenite
Green – α Ferrite
Yellow – α' Martensite

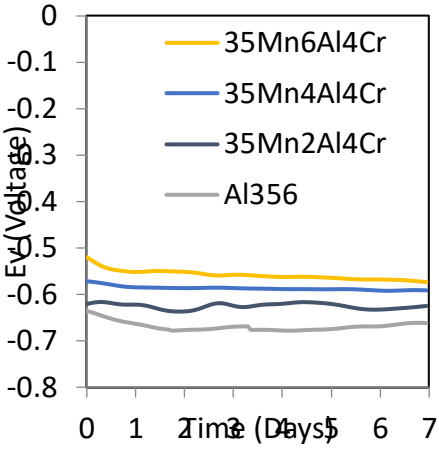


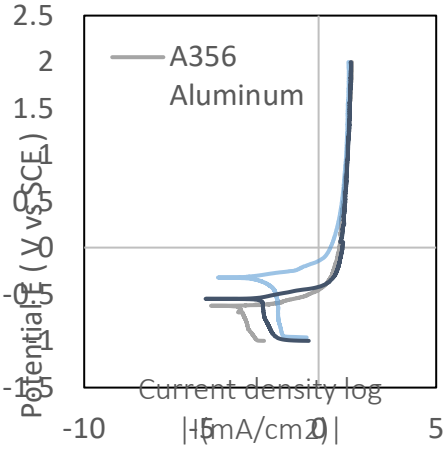
Wear and Corrosion property

OCP









Alloy improvement measured with ZRA experiments