Program Meeting Materials - Tuesday 12 December 2017

REGISTRATION

08.00 **Coffee and registration**
Atrium Lounge

OPENING AND INTRODUCTION

09.00 **Rob Boom (M2i Senior Scientific Advisor & Chairman of the day)**
Opening
Rotonde

09.05 **Bert van Haastrecht (Materials innovation institute M2i)**
Introduction Meeting Materials
Rotonde

09.20 **Marc Koper (Leiden University)**
Keynote Atomic-level aspects of anodic and cathodic dissolution of platinum electrodes
Rotonde

9.50 **Stewart Williams (Cranfield University)**
Keynote Material properties and control in wire based additive manufacture
Rotonde

ELEVATOR PITCHES

10.20 **Elevator pitches**
Rotonde

COFFEE BREAK

10.50 **Coffee break and networking**
Atrium

THEME SESSIONS

11.15	**Track 1** **Mechanical Behavior of Materials** *Boston 9*	**Track 2** **Small scale Additive Manufacturing** *Boston 13*	**Track 3** **Composites** *Boston 17*	**Track 4** **Advanced characterization** *Boston 19*
Session chair	***Jilt Sietsma (TU Delft)***	***Can Ayas (TU Delft)***	***Ton Peijs (Queen Mary University of London)***	***Erik Offerman (TU Delft)***
11.15	**Stijn Hertelé (Ghent University)** - Fatigue crack initiation and propagation in offshore steel structures	**Nick Maassen (TU Eindhoven)** - 3D-printed heat pipe array for fusion	**Davide Nardi (TU Delft)** - Effect of Manufacturing Defects for the automated production of fiber metal laminates (FML)	**Hans Mulders (FEI)** - Developments and trends in material characterization using TEM, SEM and FIB instrumentation
11.40	**Nico Kamperman (DAF Trucks) -** Thermal Mechanical Fatigue in heavy duty diesel engines	**Hunor Erdélyi (Siemens Industry Software) -** Relating AM process conditions to long-term dynamic performance of metallic AM parts	**Frans Scholten (Kiwa Technology)** - Chemical analysis and mechanical testing of failed composite pipes	**Amarante Böttger (TU Delft)** - In-situ materials research and 2D diffraction
12.05	**Priyam Samantray (TU Eindhoven)** - Multi-scale modelling of the irreversible behavior of paper fibres subjected to moisture cycles	**Veronique Barthelemy (SIMULIA) -** Additive Manufacturing process simulation at Dassault Systèmes	**Mark Bouwman (TPRC)** - Overmolding of thermoplastic composites	**Alexander Neirinckx (University of Antwerp)** - Advanced electron microscopy techniques for materials science

LUNCH

12.30 **Networking lunch and exhibition**
Atrium

THEME SESSIONS

13.45	**Track 5** **Damage in rail applications structures** *Boston 9*	**Track 6** **Large scale Additive Manufacturing** *Boston 13*	**Track 7** **Sustainable Concrete** *Boston 17*	**Track 8** **Advanced characterization** *Boston 19*
Session chair	***Rolf Dollevoet (Prorail /TU Delft)***	***Gert Willem Römer (University of Twente)***	***Klaas van Breugel (TU Delft)***	***Bart Kooi (University of Groningen)***
13.45-14.10	**Ankit Kumar (TU Delft/FOM)** - In-situ strain partitioning and damage in continuously cooled carbide free bainitic steels using micro digital image correlation	**Marko Bosman (Fokker GKN)** - The development of Additive manufacturing at a global Tier 1 aerospace supplier	**Marija Nedeljkovic (TU Delft)** - Carbonation of alkali-activated fly ash and slag materials	**Stefan Zaefferer (MPIE)** - Electron channelling contrast imaging (ECCI): direct observation of crystal lattice defects in bulk samples for in-situ deformation experiments
14.10-14.35	**Ivan Shevtsov (ProRail)** - Rolling Contact Fatigue problems at railway turnout: experience of ProRail	**Vera Popovich (TU Delft)** - 3D microstructural design by additive manufacturing: avenue to smart high temperature materials	**Katrin Schollbach (TU Eindhoven)** - Eco-concrete: methods to improve the environmental impact of concrete	**Joachim Loos (DSM Materials Science Center)** - Vision on Imaging
14.35-15.00	**Martin Hiensch (TU Delft/DEKRA Rail)** - Sustainable Railway Switches: structural performance of the switch panel	**Hugo Romer (Huisman Equipment) -** Wire & Arc Additive Manufacturing for Offshore Appliances	**Steffen Grünewald (CRH/TU Delft/Ghent University)** - Sustainable binders in different concrete binding systems in two SIM MaRes projects	**Bram Schroyen (KU Leuven) -** Quantitative characterisation of the dispersion quality based on mechanical contrast

COFFEE BREAK

15.00 **Coffee break and networking**
Atrium

PLENARY FINAL SESSION

15.30 **Norman Fleck - Cambridge University**
Keynote Failure mechanisms in material systems
Rotonde

DRINKS & CLOSURE

16.00 **Drinks & closure**
Atrium