NSF I/UCRC CR³ Virtual IAB Meeting
May 18-20, 2020

Monday, May 18, 2020
9:15 a.m. Welcome and Opening Remarks: IAB
   M. Bauer
CR³ NSF Assessment Coordinator’s Update
   S. Shipp
CR³ Updates
   B. Mishra

9:30 a.m. Focus Group Sessions

9:30 a.m. A: Optimization of Concrete Mixtures for 3D Printing (KUL/Umicore)
   G. Beersaerts, Y. Pontikes
10:15 a.m. B: Near Real Time Sub-ppm Detection of Elements in Metals (WPI/East Penn)
   S. Bong, Y. Wang
11:00 a.m. C: Copper Separation from Steel (WPI/SMS)
   H. Jin, B. Mishra
11:45 a.m. D: Moisture Analysis of Heterogeneous Solid Material Flows (KUL/Gopher)
   R. Chukka, B. Blanpain

12:30 p.m. Adjourn – Day 1

Tuesday, May 19, 2020

9:00 a.m. General Discussion

9:15 a.m. Focus Group Sessions Continued

9:15 a.m. E: Alternative Fluxes for Lead Bullion Refining (CSM/Metallo Belgium)
   S. Asante, E. Tshijik Karumb, P. Taylor
10:00 a.m. F: Optimized Sorting and Separation Technologies for Remanufacturing with Product Centric Recycled/Reclaimed Scrap (WPI/US ARL)
   A. Gupta, B. Mishra
10:45 a.m. G: Paint Sludge (CSM/GM)
   V. Vaccarezza, C. Anderson
11:30 a.m.    H: Electro-Oxidation of Metals & Inorganics in Metal Operations (KUL/Umicore)  
               *P. Subramanian, J. Fransaer*

12:15 p.m.   Adjourn – Day 2

**Wednesday, May 20, 2020**

**9:00 a.m. Initial Review of 2021 Project Proposals**  
* M. Eschen – PSC Chair

21-01. Increased Gas Injection Efficiency through Sonic Jetting Regime, suggested by Umicore and Metallo (10 minutes)

21-02. Assessment of Environmental Properties of Non-ferrous Metal Production, suggested by Boliden and Aurubis (10 minutes)

21-03. Metal Recovery from Industrial By-Products Using Bromine, suggested by Gopher and ICL (10 minutes)

21-04. Recovery of Titanium Oxide from Bauxite Residue, suggested by GMR (10 minutes)

21-05. Vapor Compression Distillation for Efficient Magnesium Alloy and Rare Earth Magnet Recycling, suggested by ICL (10 minutes)

21-06. Adhesive and Sealant Waste Reduction, suggested by GM (10 minutes)

21-07. Machining Fluid Filtration and Particle Count Measurement, suggested by GM (10 minutes)

**10:15 a.m. CR³ Roadmap Discussion**  
* M. Bauer

**10:30 a.m. NSF Phase I Application Process**  
* B. Mishra

**11:00 a.m. IAB Meeting – Closed Session**  
* M. Bauer – Chair

**12:00 p.m. IAB Debrief with Directors**

**12:30 p.m. CR3 Meeting Adjourns**