IFPRI BRIEF TEMPLATE

Check One: ☐**Project** ☒**Review** ☐**Collaboration** ☐**Workshop** ☐**Other**

Descriptive Title	Inline measurements of wet system properties
Working Title[1]	Inline measurements of wet systems
Technical Area[2]	Wet
Date	25/06/19
Short Description	This review should report on existing, new and emerging methodologies for the inline characterization of wet systems.
Objectives	• Review of the methodologies for particle size analysis from nano to mm scale • Measurements of presence, size distribution of small particles when large particles are present • Techniques for the measurement of particle shape, roundness, degree of agglomeration and other particle morphological information • Methods to determine gas hold-up/volume fraction, suspension density • On-line measurements of rheological properties • Application of these techniques to computationally intelligent algorithms for data analytics
Scope	• Only wet systems, focused on suspensions and slurries • Should be focused on academic development, scientific advancements, spin-off initiatives rather than commercial units.

Recommended Contractors (2 or 3)		
Name	**Institution**	**Email Address**
David Grier	New York University Soft Matter Physics	david.grier@nyu.edu
Norbert Willenbacher	Karlsruhe Institute of Technology	Norbert.willenbacher@kit.edu
Marlon Reis	University of Auckland School of Chemical Science	marlon.m.reis@agresearch.co.nz

Submitted By:	
Name	**Organization**

[1] Title used in meeting agendas and file archives

[2] One or more from the following list: W = wet systems; D = dry systems; F = particle formation; SR = size reduction; M = modeling; SE = systems engineering

Vincenzino Vivacqua	Johnson Matthey
Claire Gaiani	University of Lorraine
Eric Furst	University of Delaware
Vidya Vidyapati	P&G
Erin Koos	KU Leuven
John Hone	Syngenta
Ramon Carbiscoli	Johnson Matthey
Michele Marigo	Johnson Matthey