**Check One: ☐Project ☐Review 🗹 Collaboration**

**☐Workshop ☐Other**

| **Descriptive Title** |  |
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| **Working Title[[1]](#footnote-0)** | **Flow Aids vs Grind Aids - Compare & Contrast** |
| **Technical Area[[2]](#footnote-1)** | Dry Systems |
| **Date** | 2025-06-17 |
| **Short Description** | Flow aids (nanoparticles) and grind aids (liquids) are both additives that affect behaviour of powders in industrial settings. It seems it would be a missed opportunity if we did not cross-test these additives:   1. how do the dry flow aids used at NJIT affect the key functions in grinding circuits as tested at TUBS: the breakage, dynamics (selection for breakage, selection for removal from mill) as well as classification. Furthermore, can flow aid effects also be built into the DYSSOL simulation. 2. how do the grind aids tested at TUBS perform in the tests developed at NJIT? 3. Are flow aids and grind aids interchangeable or one works better than the other in terms of flow enhancement? Could they be used in a synergistic sense by doing a limited number of tests? |
| **Objectives** | To clarify what distinguishes grind aids from flow aids, and what is common - both in effects and mechanisms.  Take advantage of having robust setups for the evaluation of each to “cross-test”. |
| **Scope** | Scope would be the systems already developed by each team for the IFPRI projects already underway. No new setups should be required. |

| **Recommended Contractors (2 or 3)** | | |
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1. Title used in meeting agendas and file archives [↑](#footnote-ref-0)
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 [↑](#footnote-ref-1)