

Digital design for formulated products – pharma, food & specialty chemicals

Sean Bermingham[†]

Process Systems Enterprise (PSE)

(s.bermingham@psenterprise.com[†])

Digital design has been increasingly applied in the pharmaceuticals and other formulated products sectors in the last 5 years, and was given a significant boost by the 4-year Advanced Digital Design of Pharmaceutical Therapeutics (ADDoPT) project, which is currently drawing to a close.

ADDoPT developed a smart manufacturing approach for top-down, knowledge-driven digital design of drug products and digital design and operation of their manufacturing processes. Similar approaches can be applied to accelerate to-market activities within other formulated products sectors, including food, consumer products and specialty chemicals.

This session describes some of the applications addressed in that project among others: Case1: Digital design of drug substance manufacture; Case2: Digital design of continuous drug manufacturing processes; Case3: Digital design of spray drying processes for food manufacture; and Case4: Digital design of lithium processing operations.