Seeking Technologies and Approaches for the Production of Pesticide Intermediates

FMC is an agricultural sciences company that advances farming through innovative and sustainable crop protection technologies. FMC is looking for technologies and methods for the production of intermediates, 2,7-dimethylnaphthalene [582-16-1] or 2,7-dimethyl-1-bromonaphthalene [37558-62-6], for pesticidal compounds in a cost-effective manner.

Approaches of Interest:

- Synthesis routes that employ less than 3 chemical transformations from a commodity-type raw material (which costs less than < $100/mol at its largest offered quantity from a major supplier of laboratory chemicals).
- Methods should be cost-effective and scalable.
- Chemical transformations without precious metals (palladium, platinum, iridium, gold, silver) are preferred, although presence in low levels would be acceptable, particularly if utilising immobilised metals, or methods in which they can be recycled.

Developmental Stages of Interest:

- Solutions that have already been demonstrated on a laboratory scale for the desired intermediates are preferred, however research on similar substrates that could be applied here are also of interest.
- Commercially available technologies and transformation methods are also preferred.

Out of Scope:

- Solutions related to 2,6-dimethylnaphthalene and 2,5-dimethylnaphthalene or their 1-bromo-derivative are out of scope unless they can demonstrate control over regioselectivity with the potential to generate 2,7-dimethylnaphthalene or its 1-bromo-derivative.

Submission Information:

Submission of one page, 200-300 word briefs are encouraged, along with any optional supplementary information e.g. relevant publications. Intellectual property status of the research should be included where relevant. In submitting to this campaign, you confirm that your submission contains only non-confidential information. Those submitting Expert or Centres of Excellence submissions are also encouraged to complete this submission form to provide additional information related to their research, its stage of development, and how it can address FMCs call.

Opportunity for Collaboration:

FMC is open to a range of collaboration scenarios, with the most appropriate path determined by the needs of the opportunity. Example outcomes include licensing of technologies and short term collaborations to validate researched approaches.