Fundamental mechanisms of fuel and cladding performance

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Objectives:

- Extend and exploit developed expertise in a range of modelling techniques for advanced fuel and cladding designs
- Demonstrate advances through publications and presentations
- Support participation in conferences and OECD NEA initiatives
- Develop capability to respond to stakeholders needs

Leveraging / supports:

- OECD Nuclear Energy Agency projects: Thermodynamics of Advanced Fuels International Database
    - Working Party on Multiscale Modelling
    - Working Party on Scientific Issues of Reactor Systems
- Cooperative Action Plan between the US DOE and NRCan
- CANDU Owners Group
- Canadian Universities: RMC, UOIT

Tasks: Tasks are divided by length-scale following a multiscale paradigm and each feature two complementary modelling approaches