Biomaterials modelling in FinnCERES

2018-11-05

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FinnCERES Is Big in Biomaterials Modelling

Aalto

VTT

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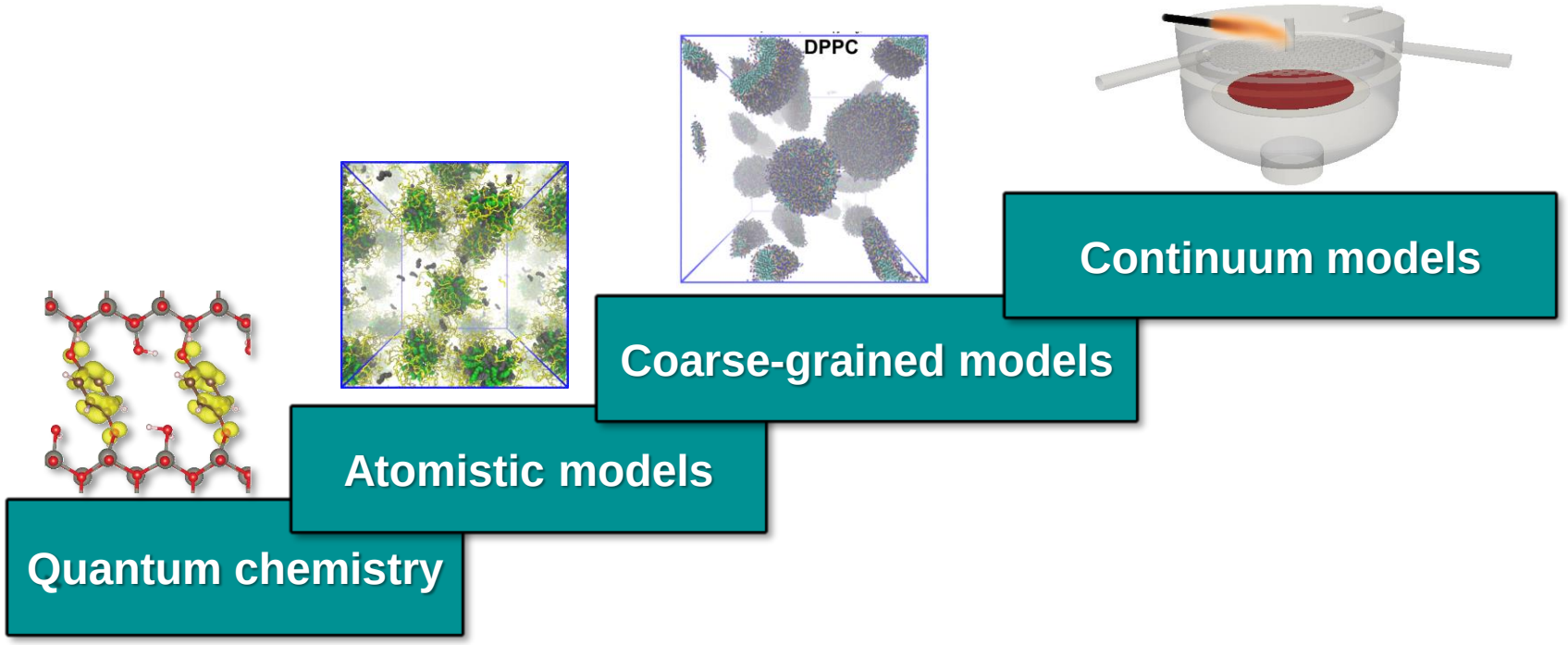
From micro- to macroscale and back

- Consolidate the versatile modelling expertise at Aalto and VTT
- Determine the research needs at different length scales
- Bridge the length scales to enable new biomaterials innovations



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Economic impact reports from industry

- Molecular modelling enables R&D process improvements with a return of investment (ROI) in the range of **3:1** to **9:1**.[1]
- Economic impact from recent Integrated Computational Materials Engineering (ICME) modelling projects:[2]
  - A project led by Ford Motor Company reported a **7:1 ROI** and a 15%–25% reduction in development time of a lighter engine design
  - QuesTek Innovations led the development of corrosion-resistant Ferrium S53 advanced high-strength steel alloy. Significant reductions in alloy development time and an estimated development cost savings of nearly **$50M** thanks to modelling.

[1] The economic impact of molecular modelling, Goldbeck Consulting, **2012**
[2] The economic impact of materials modelling, Goldbeck Consulting, **2016**

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