Software Business Models

I. Todorov¹ and S. Donders²

UKRI STFC, Daresbury Laboratory, Warrington WA4 4AD, UK, <u>ilian.todorov@stfc.ac.uk</u>, <u>https://www.scd.stfc.ac.uk/Pages/Ilian-Todorov.aspx</u>
Siemens Digital Industries Software, <u>stijn.donders@siemens.com</u>, <u>https://plm.sw.siemens.com/en-US/simcenter/</u>

Key Words: Software, Data, Marketplaces, Workflows, Business Decision Support, Sustainability

Abstract

Software has been a key component of research for decades. It has usually been associated with modelling, experimental characterisation processing and data digestion for analytics purposes. Nowadays, the value of software goes much beyond being a fundamental part of research [1], as materials modelling software has become a key enabler for business decision making in process and manufacturing industries and a crucial driver for materials discovery and innovation in a wider sense.

The talk will outline preliminary findings from the Software Business Models survey as principal components in software sustainability and evolution in the area of materials modelling and characterisation. The key feedback from our communities – including research service providers, software vendors and other industry – is split in three categories: materials data semantisation and standardisation [2-3]; support for marketplaces [4-6] as innovation spaces; and flexible workflows.

References

- [1] Evolving requirements for materials modelling software and underlying method developments: an inventory and future outlook, Ilian Todorov, Open Research Europe 2, 86-, July 2022, https://doi.org/10.12688/openreseurope.14843
- [2] Ontology-driven data documentation for Industry Common (OntoCommons), EC CSA project no. 958371, https://ontocommons.eu/
- [3] The Elementary Multiperspective Material Ontology (EMMO), https://emmo-repo.github.io/
- [4] Digital Open Marketplace Ecosystem 4.0, (DOME 4.0), EC RIA project No. 953163, https://dome40.eu/
- [5] Materials Modelling Marketplace for Increased Industrial Innovation (Marketplace), EC RIA project no. 760173, https://cordis.europa.eu/project/id/760173
- [6] Virtual Materials Market Place (VIMMP), EC RIA project no. 760907, https://cordis.europa.eu/project/id/760907