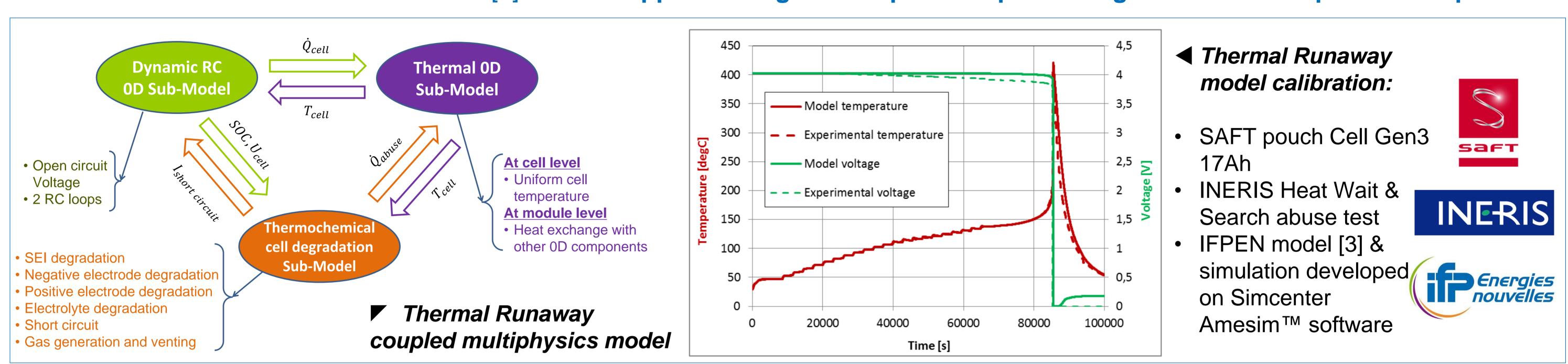
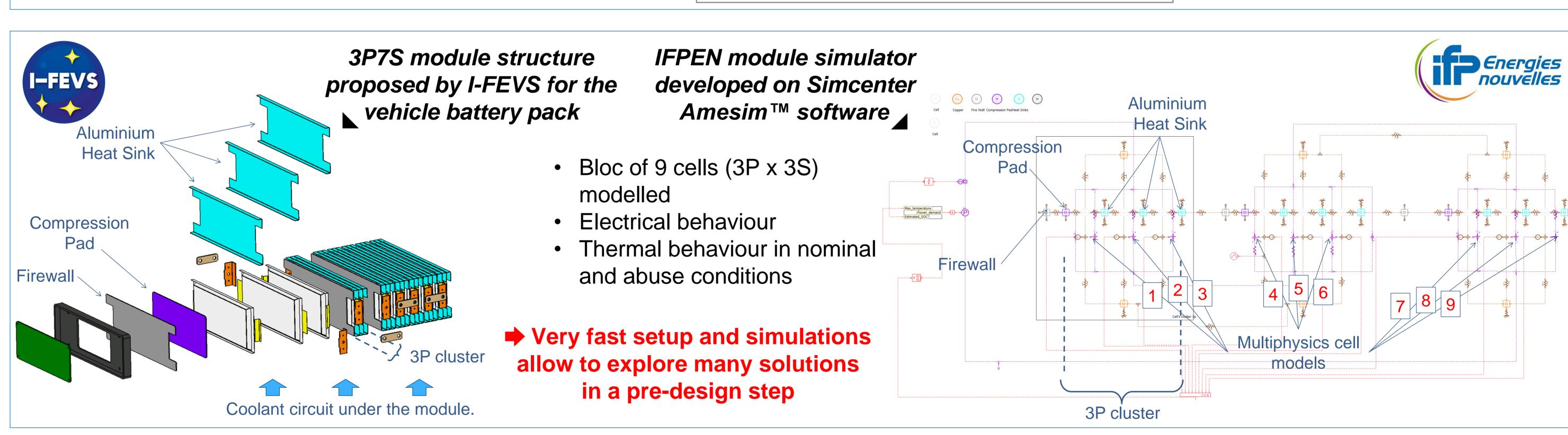
Numerical simulation for seamless integration of a safe battery pack in light electric vehicle as a contribution to the DEMOBASE project

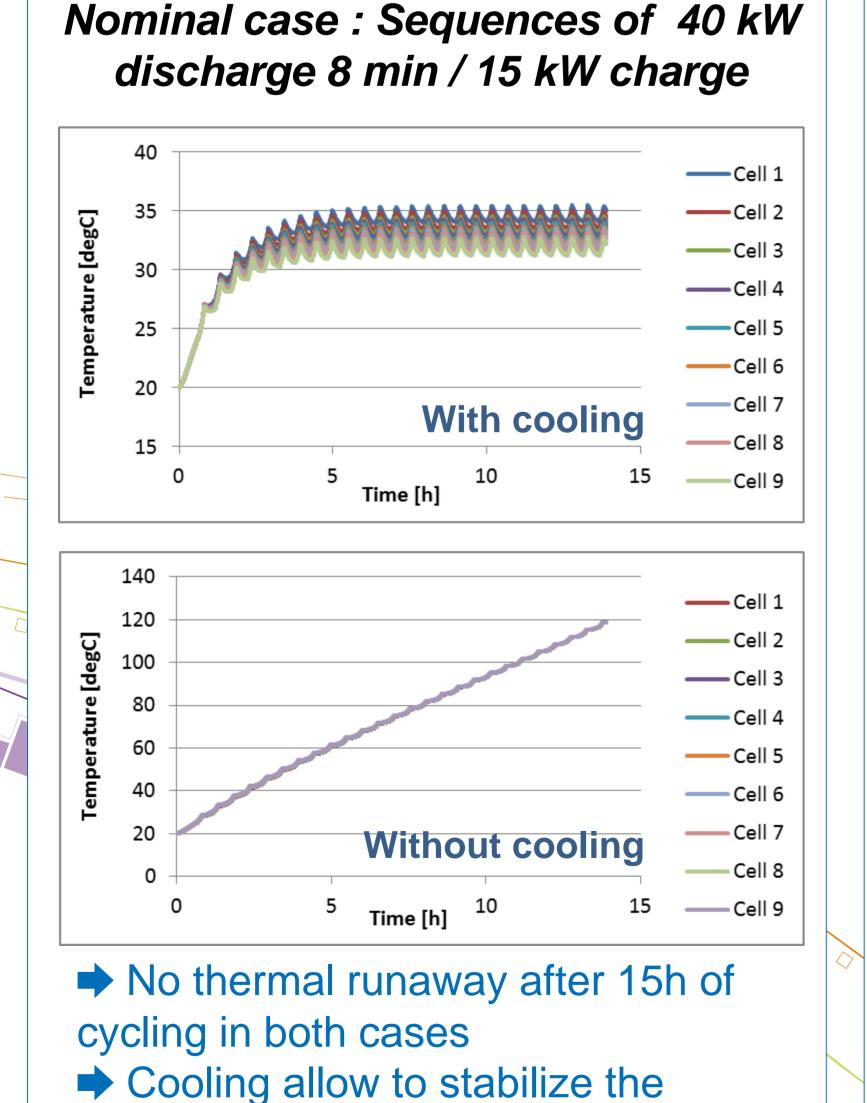
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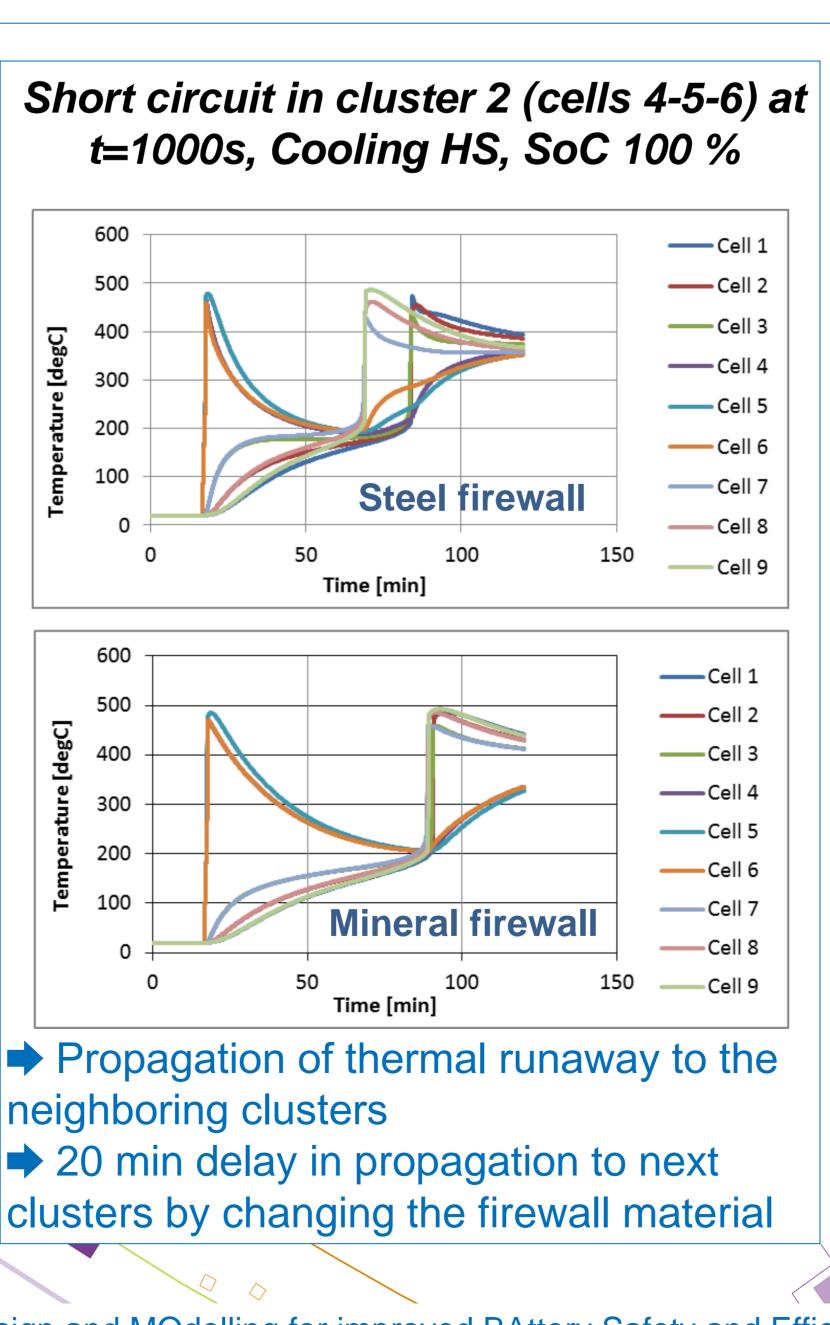
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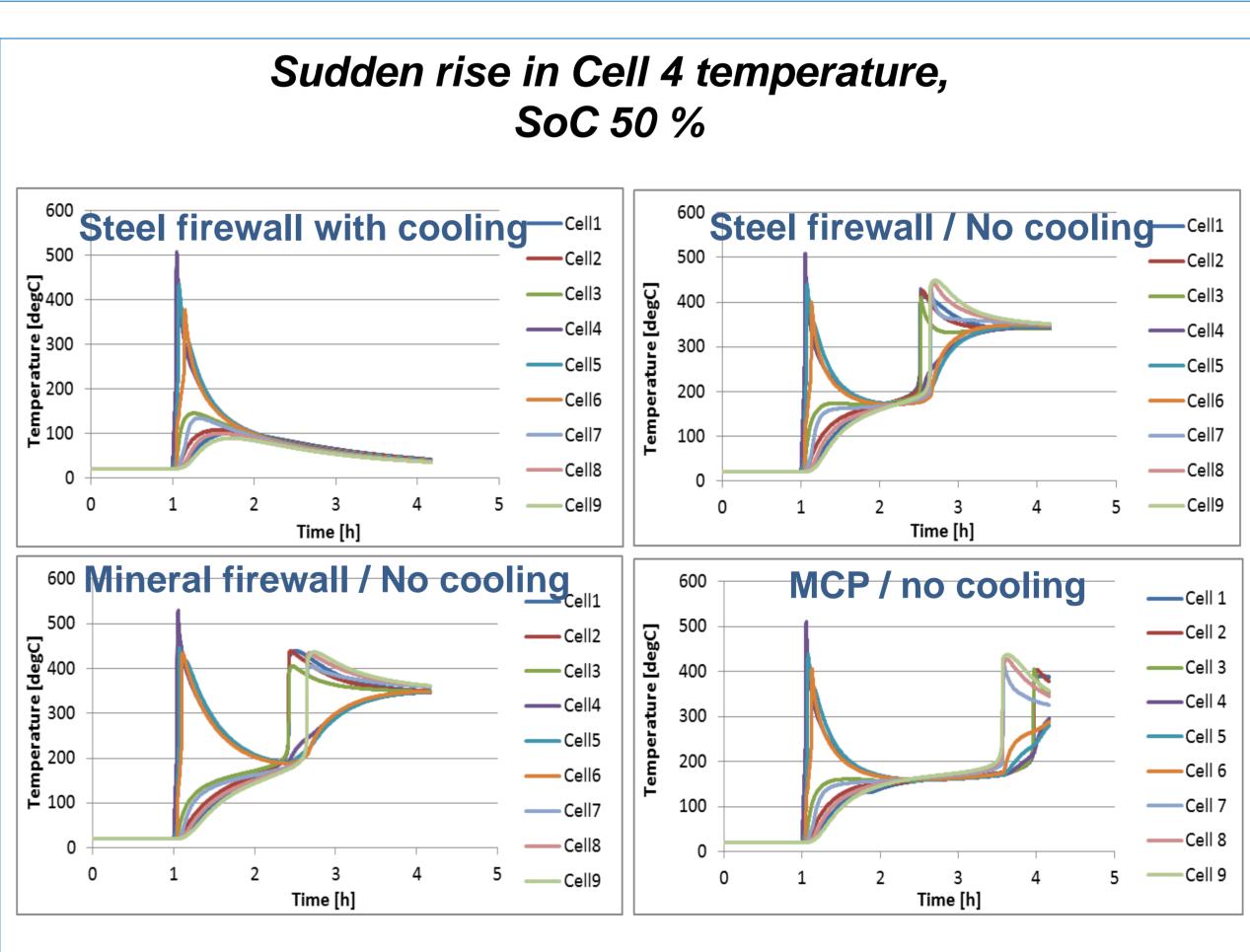
The success of electrification will rely on the development of new electric vehicles able to tackle main challenges being high cost, autonomy and also safety. As a consequence, critical choice needs to be made as soon as the development and prototyping phase. Modelling can then play a crucial role in order to anticipate and validate the choices made. This is the guideline of the DEMOBASE project [1] in order to develop an innovating EV concept meeting new market demand. In this poster we will focus on the 0D modelling of the battery thermal behaviour in nominal and abuse conditions [2]. **Can 0D approaches give a help for the pack design in the first steps of conception?**











→ Many solutions or combined solutions could permit to delay or avoid thermal runaway propagation in the battery pack between clusters



temperature below 35 °C

- [1] DEsign and MOdelling for improved BAttery Safety and Efficiency.
- Online: https://www.demobase-project.eu/.
- [2] S. Abada et al., "Safety focused modeling of lithium-ion batteries: A review,"
- J.Power Sources, vol. 306, pp. 178–192, 2016. [3] S. Abada et al., "Combined experimental and modeling approaches of the thermal
- runaway of fresh and aged lithium-ion batteries," Journal of Power Sources, vol. 399, pp. 264–273, 2018.

