



EuroNanoForum  
2019



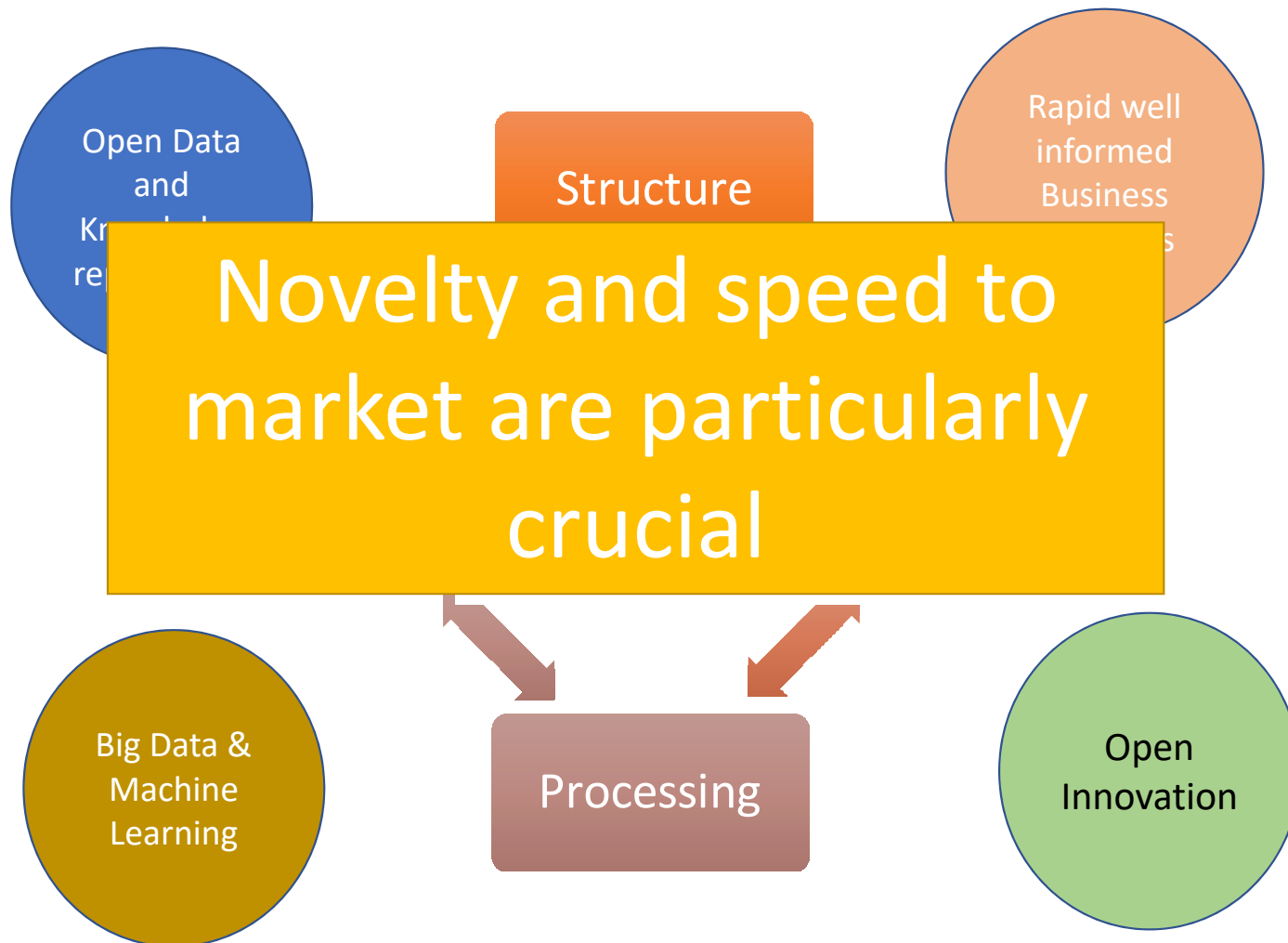
# Material Modelling Empowered Business Decision Support System (BDSS)

**COMP**  **SELECTOR**  
Polymer Composites Business Decision Support System

The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 721105.



# A vision → Competitive Advantage



# Road to competitive advantage



Material and Process Modelling Powered Business Decision Support systems

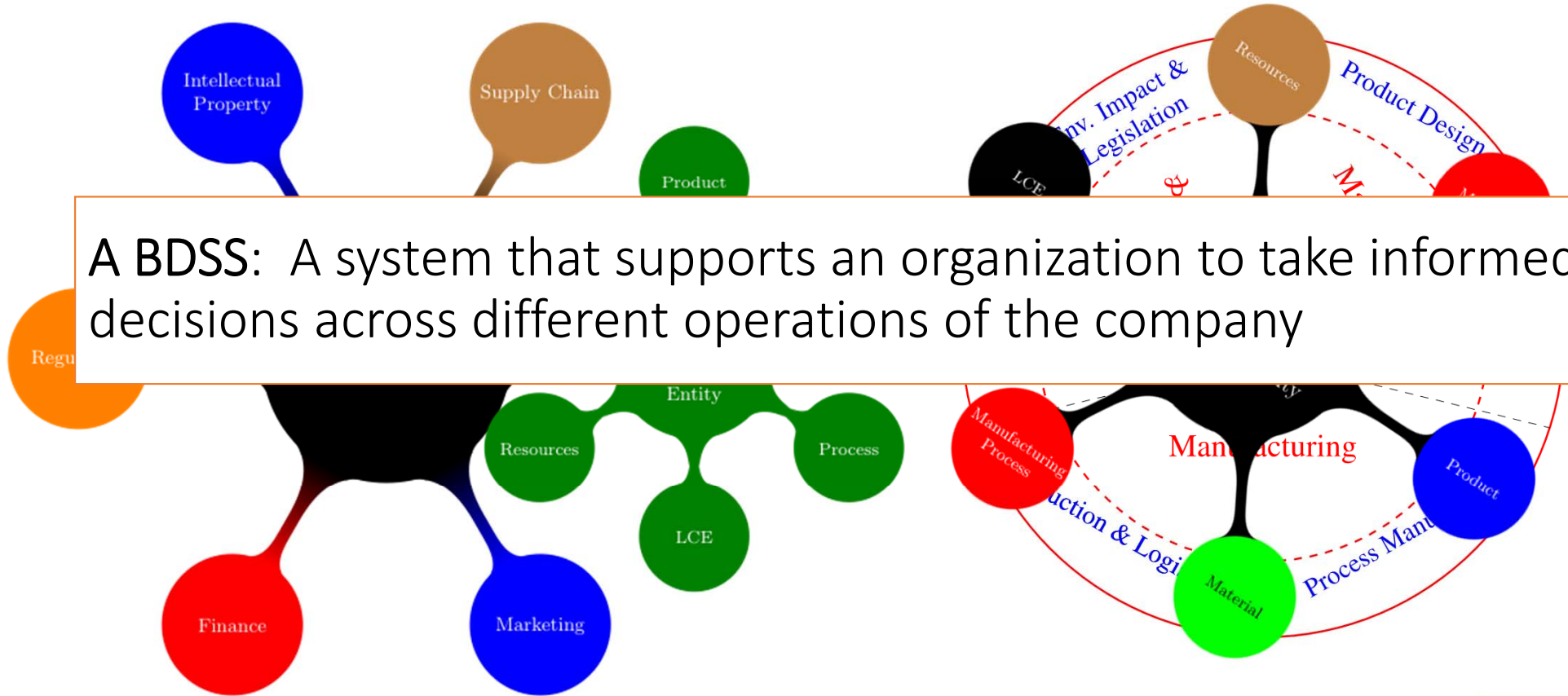




Bridge the gap between composite material and manufacturing process modelling to subsequent Business Implementation and Decision making

# Business: The complete (cross-functional) operations of a company

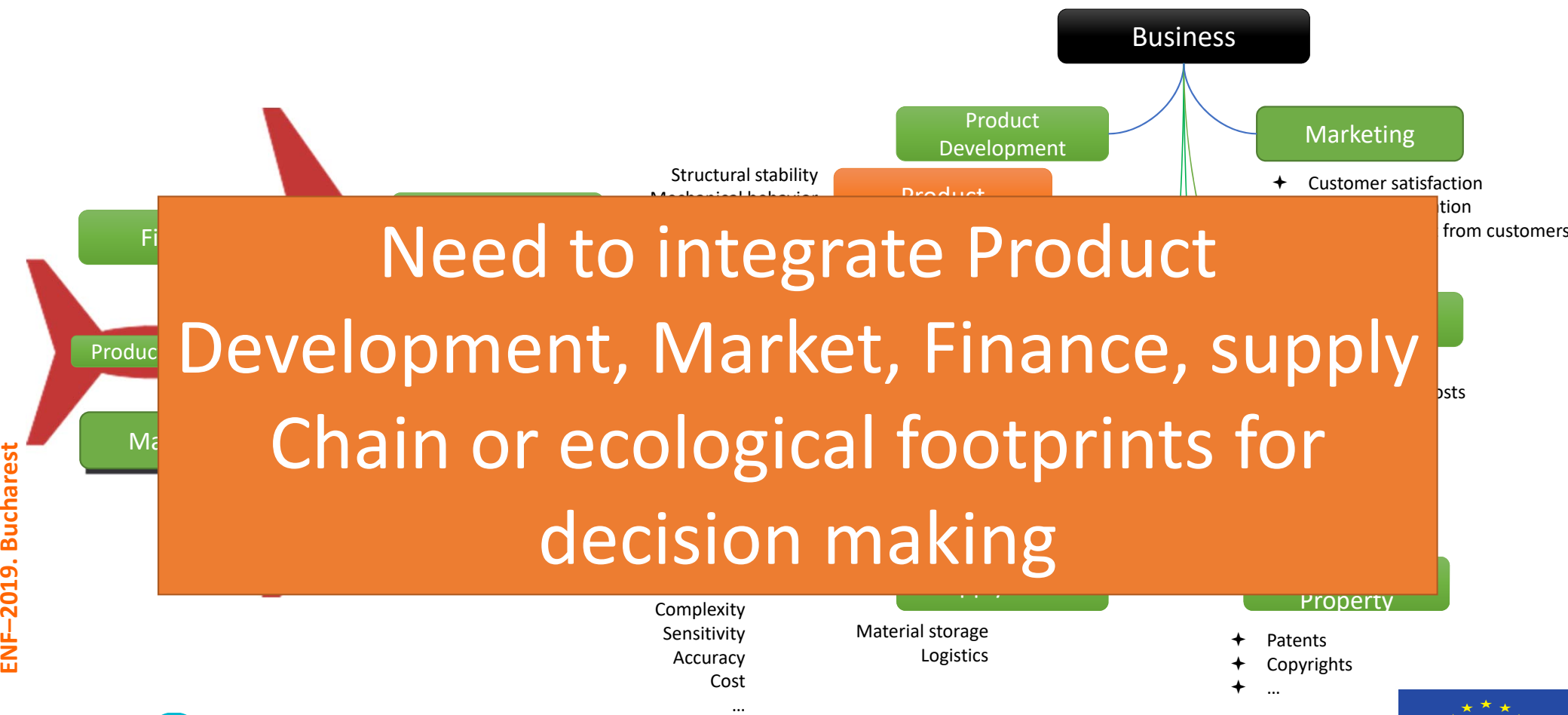
A BDSS: A system that supports an organization to take informed decisions across different operations of the company



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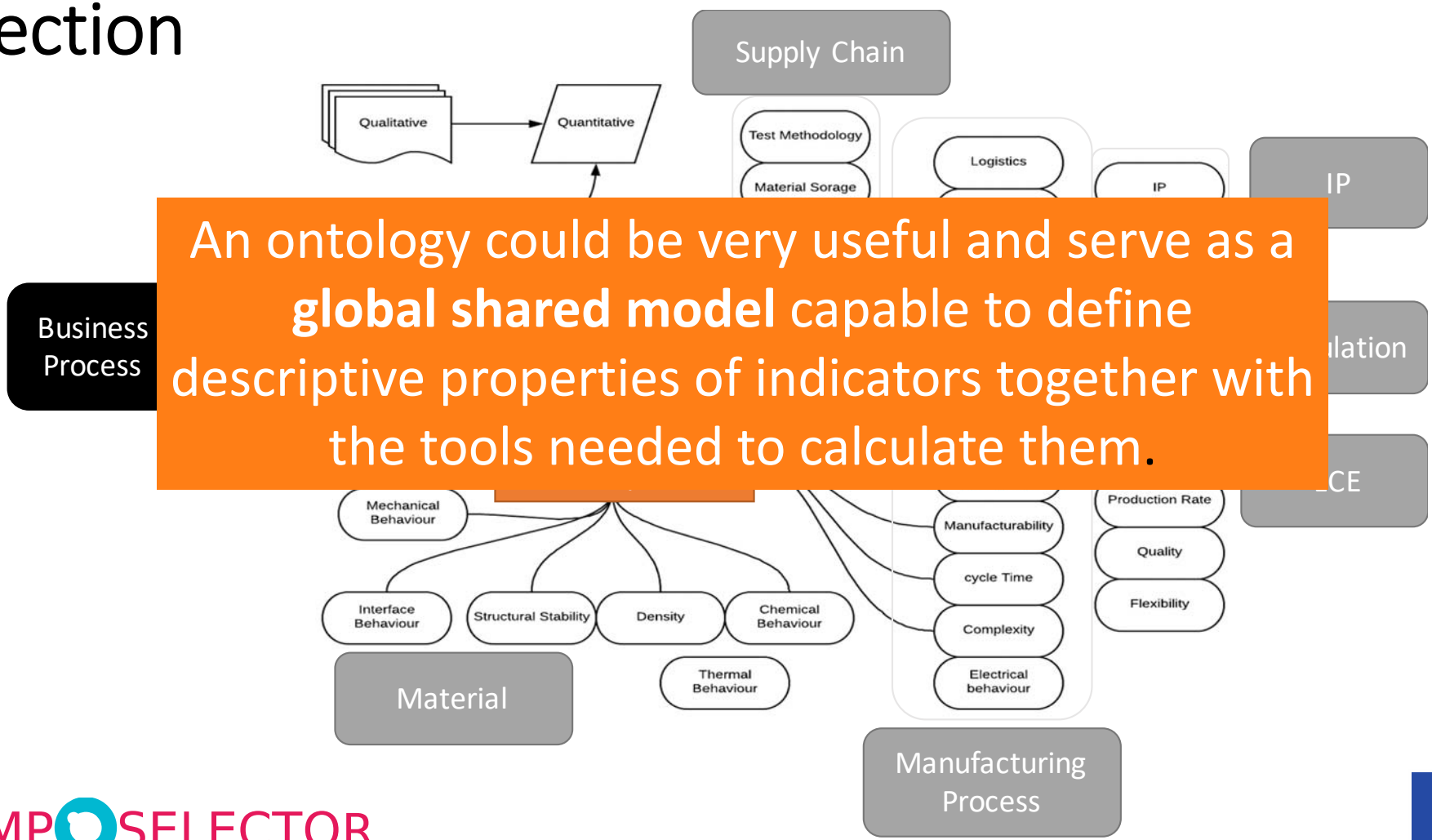
# Business Decision Making Complexity



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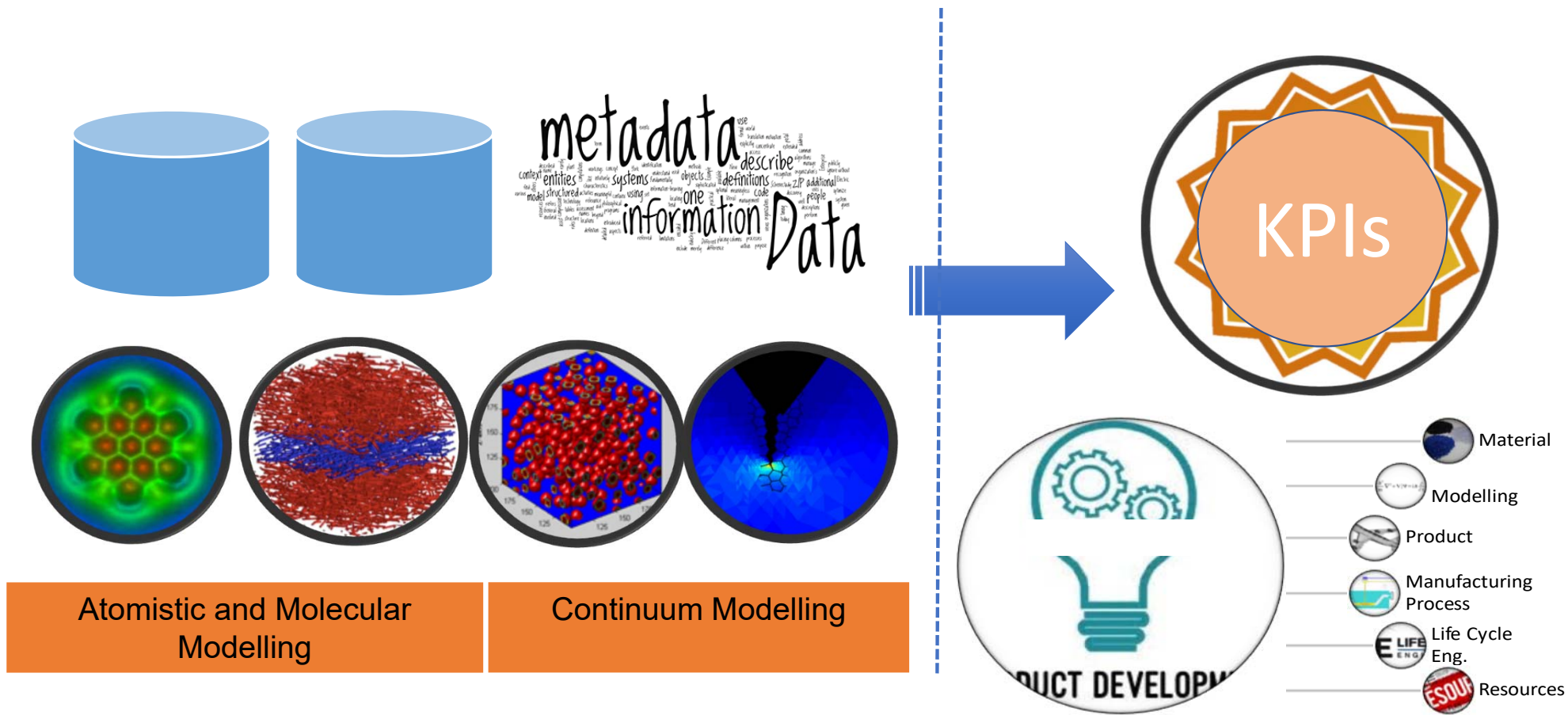
# Composite Manufacturing: Material & Process Selection



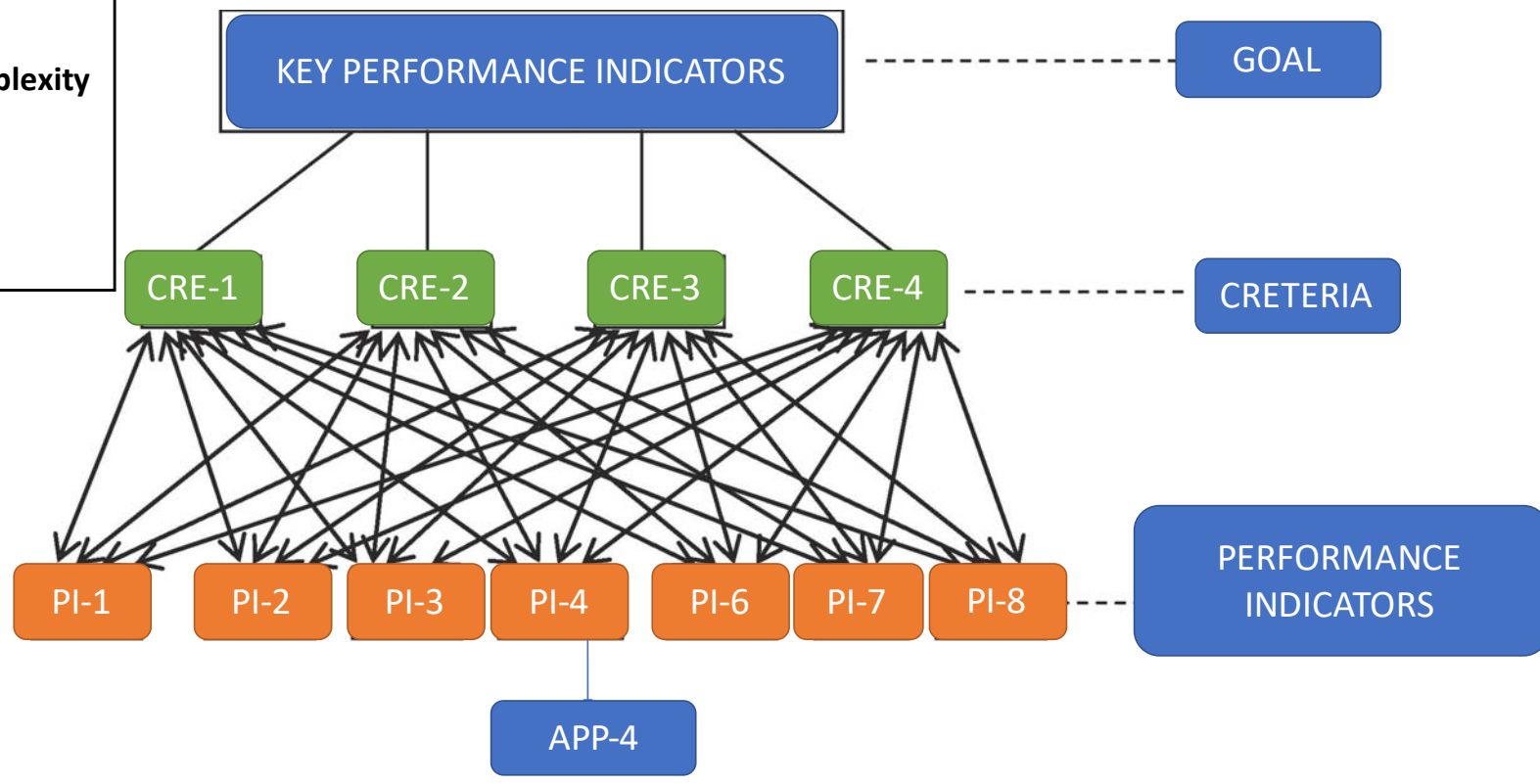
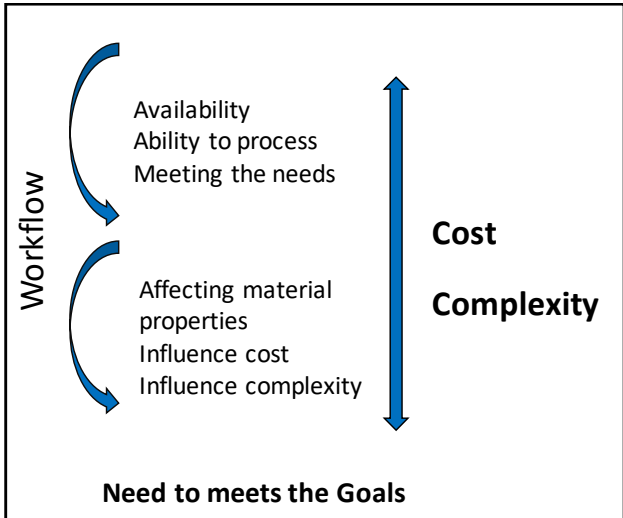
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# Material modelling as enabler for Business Decision ?

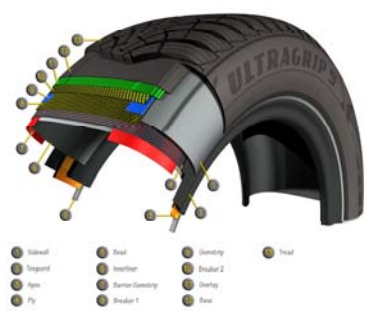






Modelling & Simulation

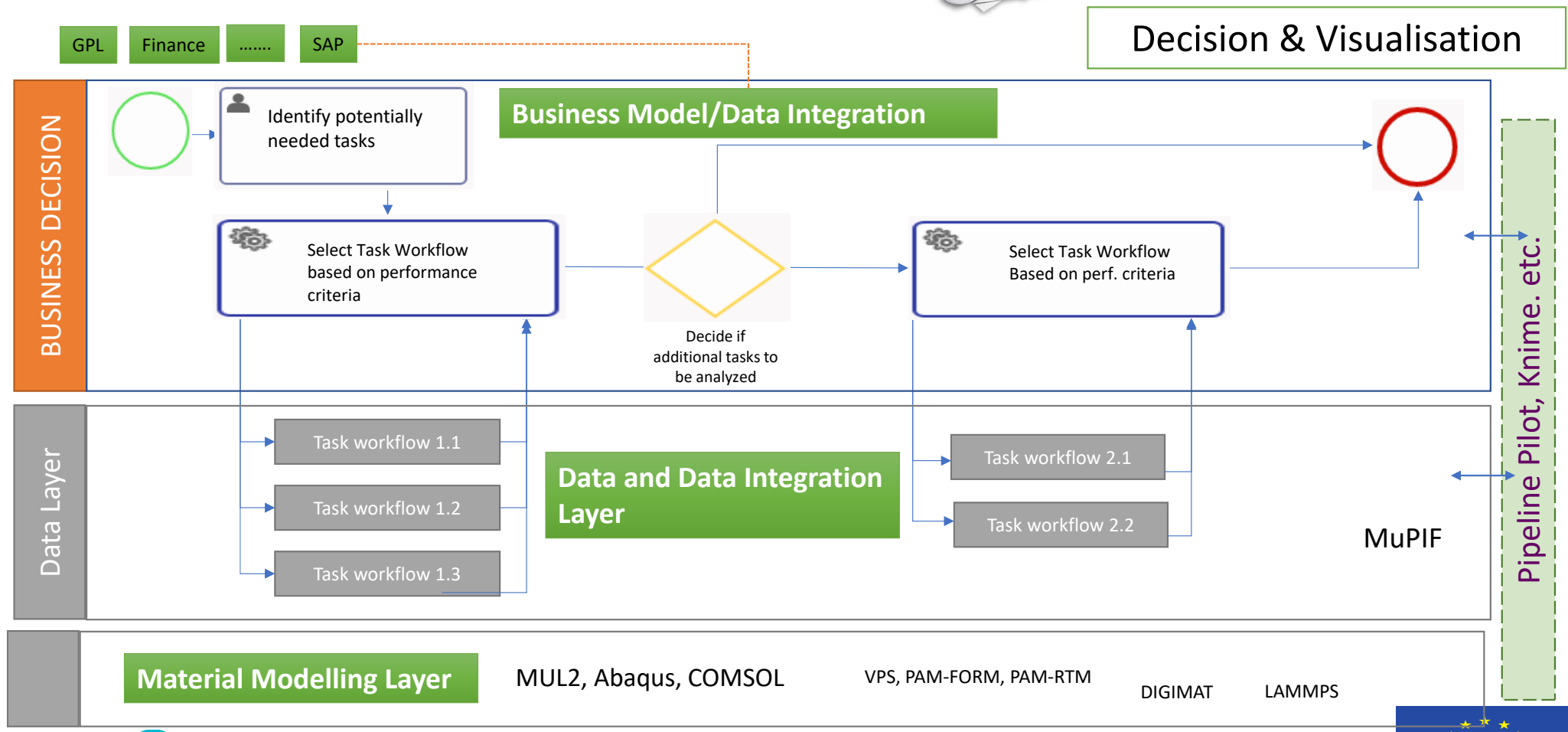
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# BDSS Implementation/Architecture



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# Decision Making Process in COMPOSELECTOR

Business Process Modelling

Decision Process Modeling

Business Data & Interoperability

Workflow Manager

Multidisciplinary Design Optimization

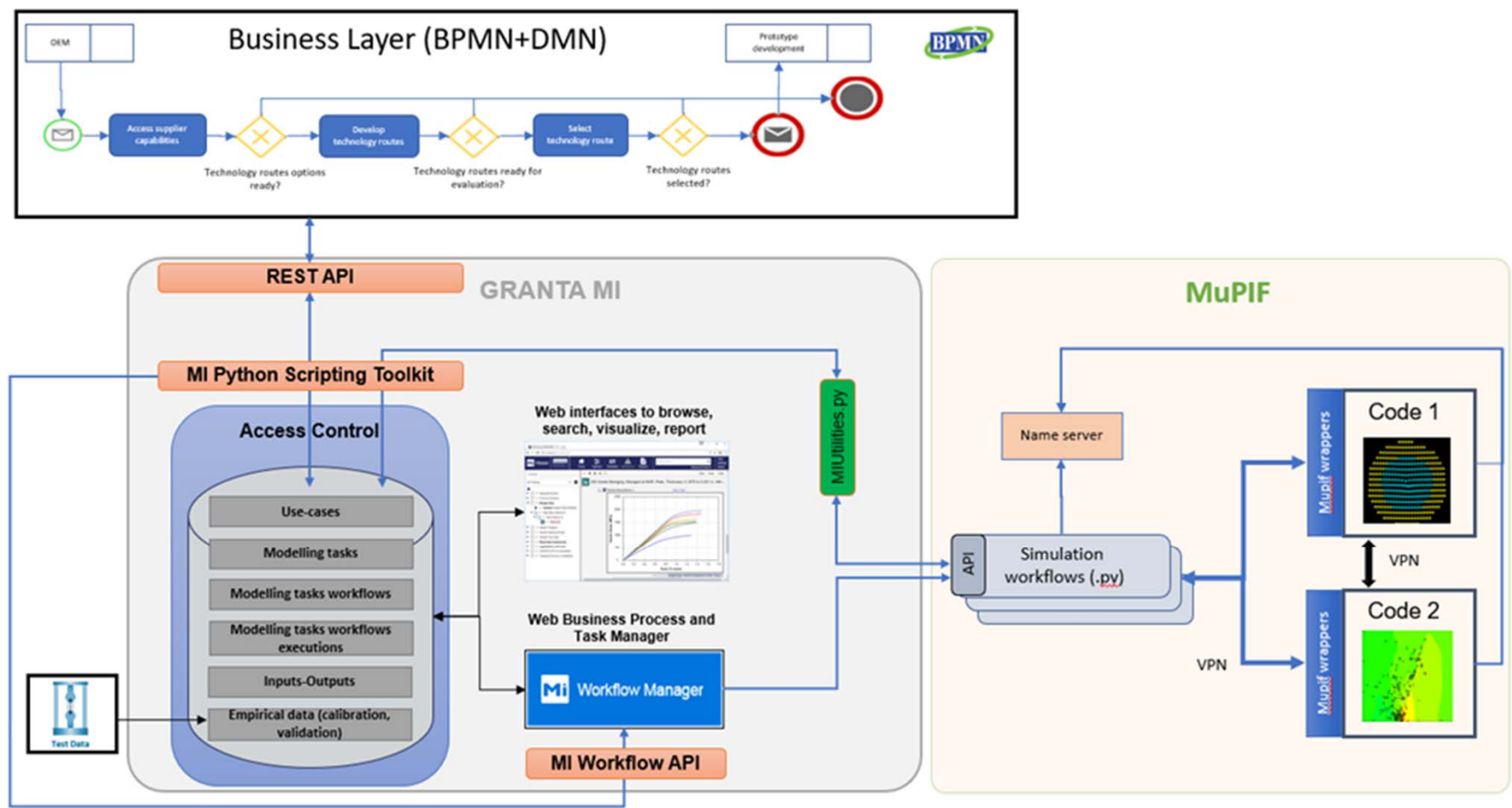
Business Decision Making



Actionable Choices



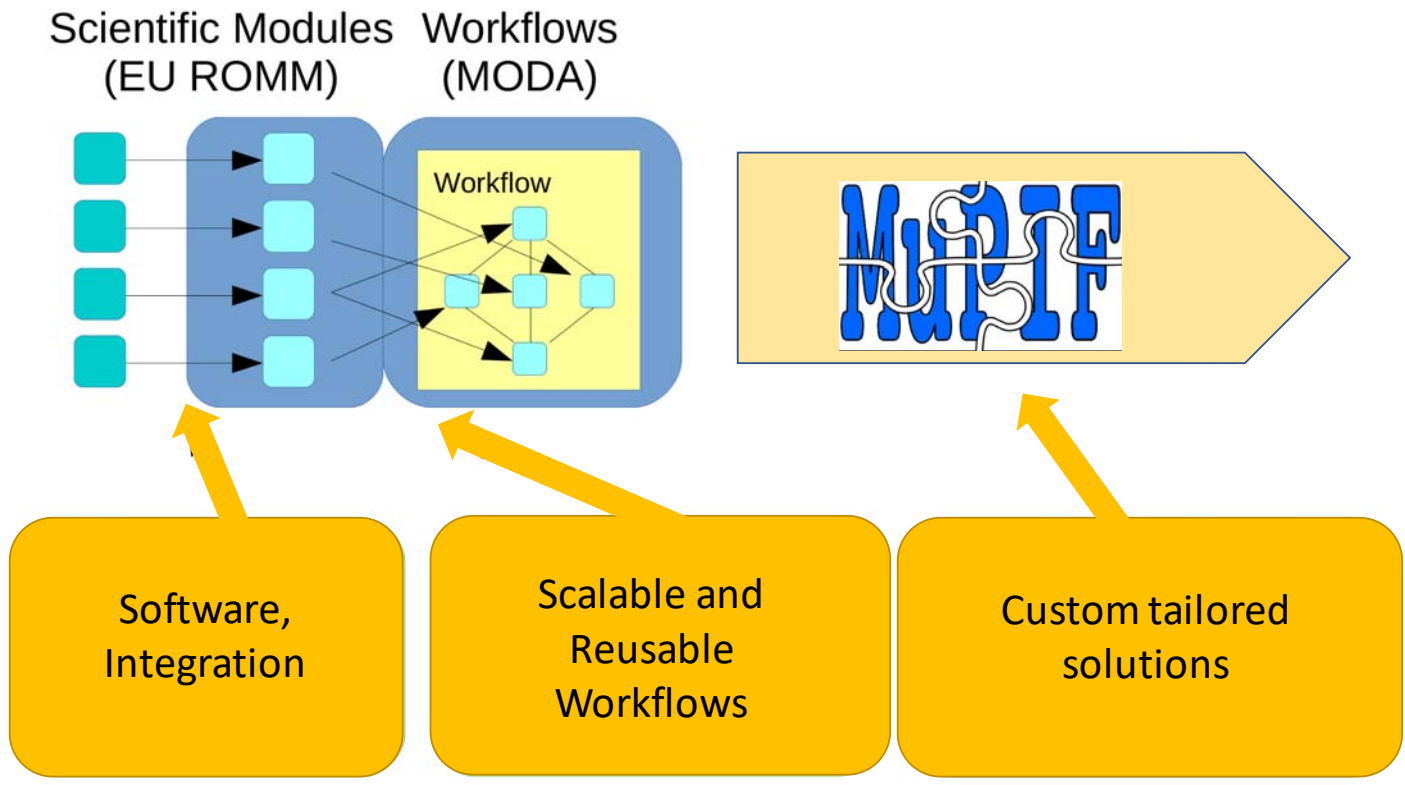
# COMPOSELECTOR BDSS Concept.



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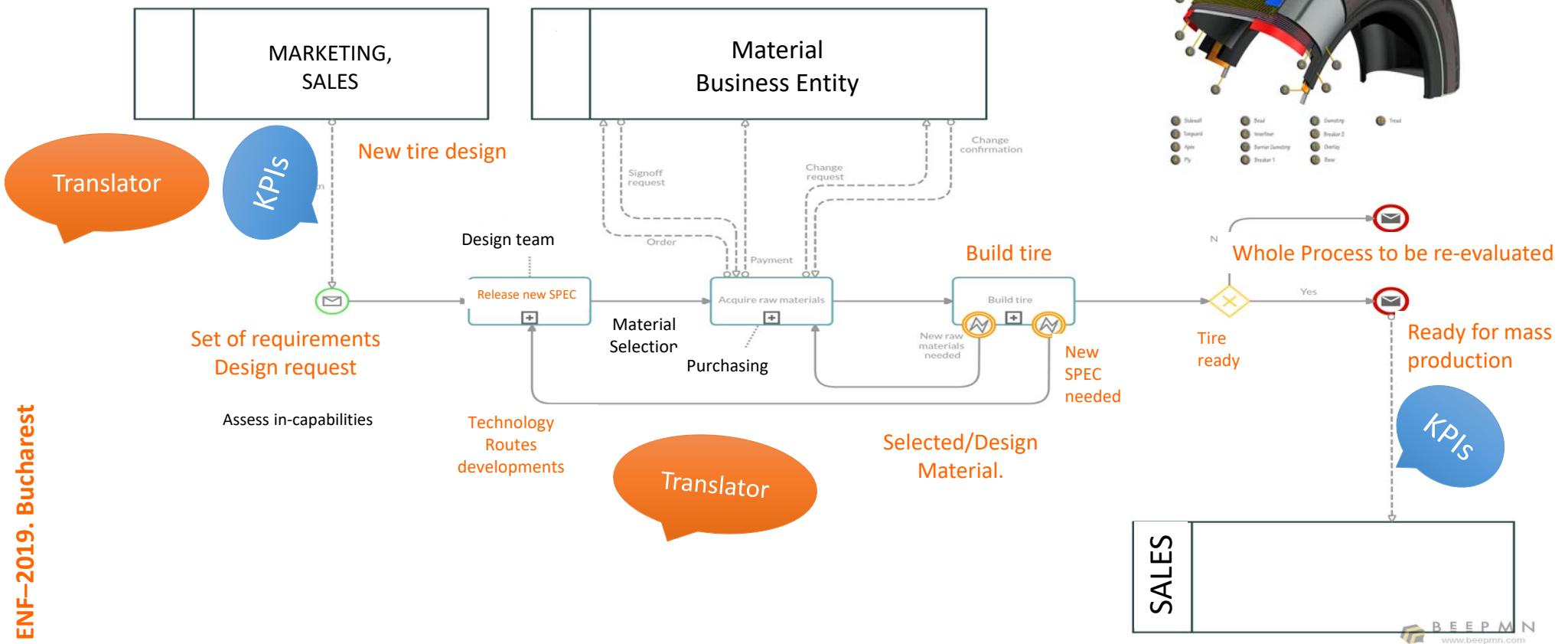
# Material Modelling Platform



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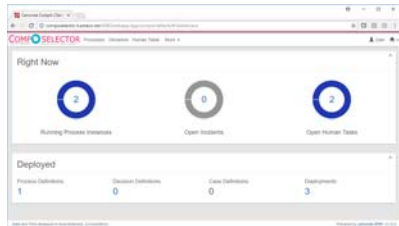
# Business Process and Decision making



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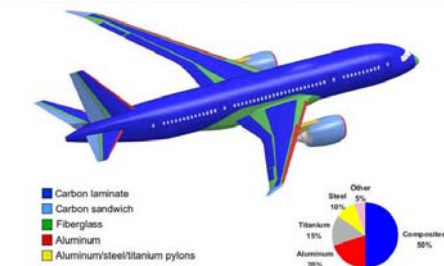
# COMPOLECTOR BDSS



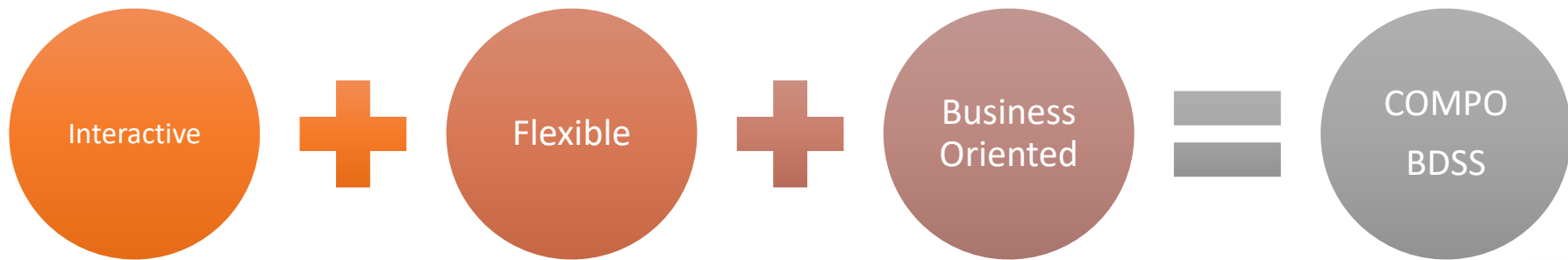
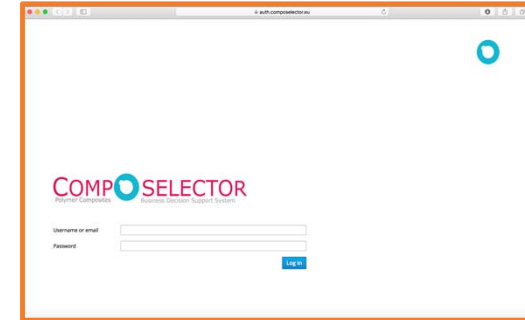
Interactive → web-based interfaces and use external information



Flexibility → add, delete, combine, change, re-arrange basic decision element



Composite Materials



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# Value Proposition of the Composelector BDSS

## 1. Easy and effective translation

- through graphically expressive notations
  - Facilitate the the analysis and improvement of operations and decision process
  - The library of processes, cases definition and business decisions.
  - The Unambiguous format for modeling process, cases and decisions
  - Can be interchanged between end-user, translator, modeler and producers or clients
  - Provide common and ready-transferable skills (business, developer, IT, material modelers, ...)
2. Interfaces to closed-source, commercial as well as open-source modeling and simulation tools, databases, and post-processing tools
3. Collaborative: Can be used at different decision level level and different decision makers





