

# IACMI Future Mobility/Vehicles Technology Working Group Update August 14<sup>th</sup>, 2024 (Indy MM)

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**Convene. Connect.  
Catalyze.**

# Mobility Working Group Agenda – 8/15/2024



- ◆ Brief update since last meeting
- ◆ Message (pending) from Executive Director of USCAR
- ◆ Framework of five (5) breakout sessions
  - ◆ Challenges and opportunities for innovation in manufacturing
  - ◆ Deep dive into workstreams
  - ◆ Best application to set requirements for manufacturing innovations – i.e., future product demonstrations
- ◆ Report out from breakout tables.

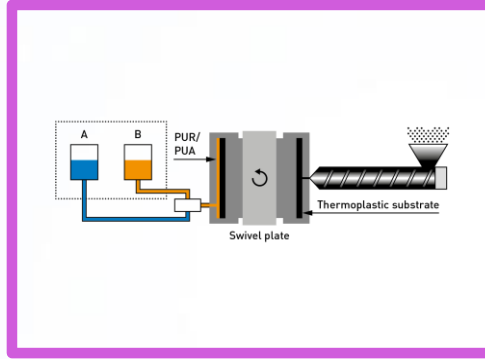
# Breakout Sessions on Manufacturing Innovation Work-Streams



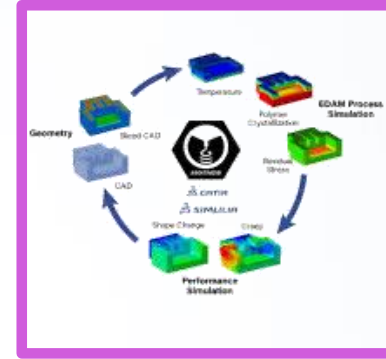
**Novel/Emerging Materials**



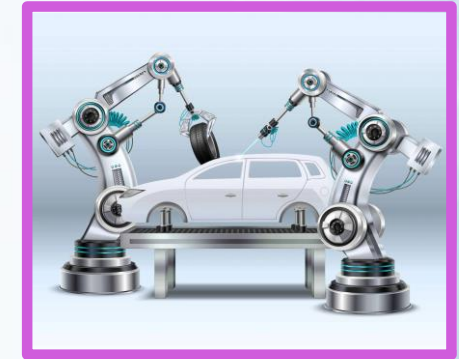
**Multifunctional Material Systems**



**Process Improvements & Qualification**



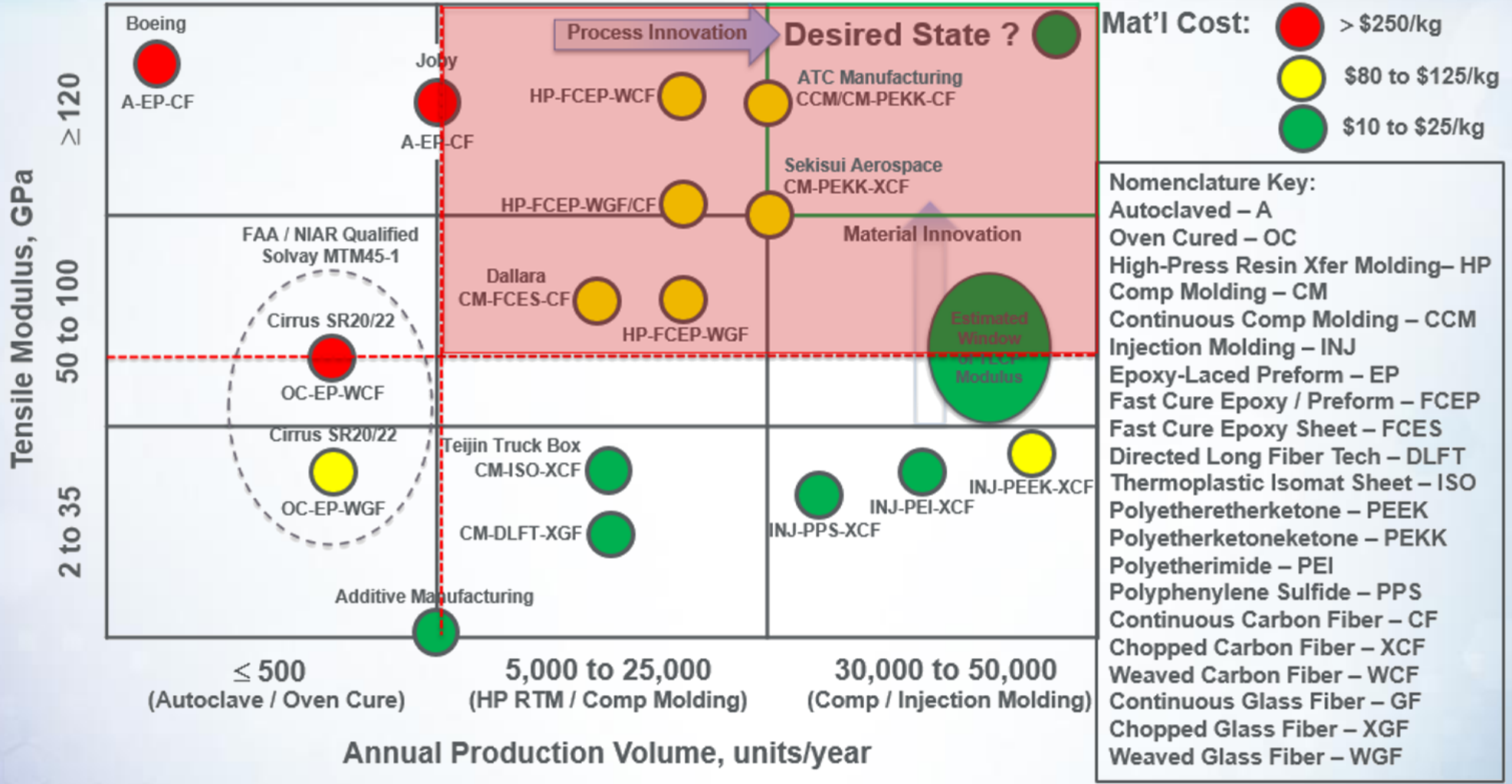
**Digital Tool & AI/ML**



**Advanced Assembly for Micro-Factories**

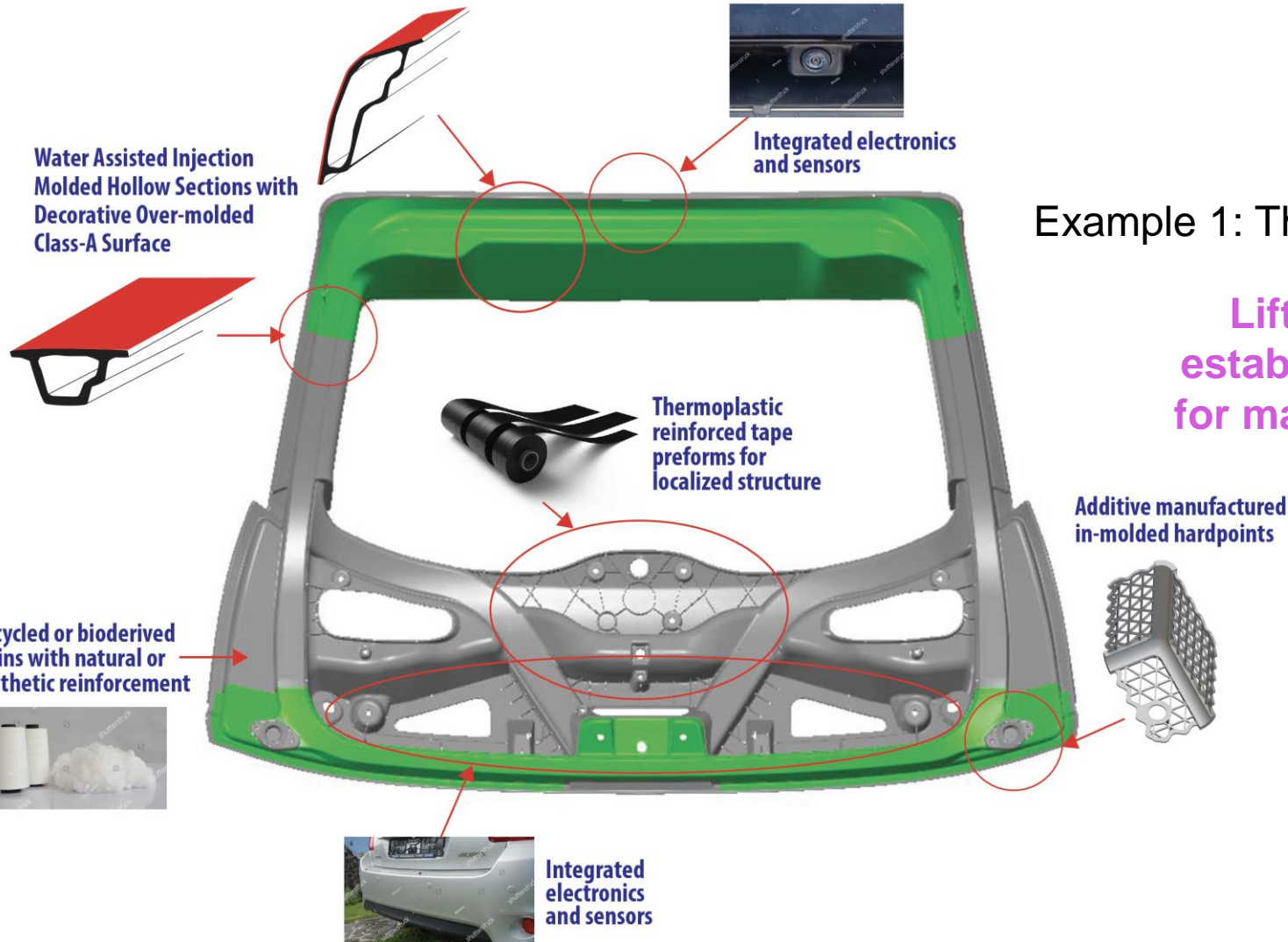
Focus will be on *challenges and opportunities for manufacturing innovations* that can be impactful for ICE and BEV vehicles. Applications will not be the initial focus (that will come later), but will help inform the requirements for the work-stream portfolios.

# Composite Processing/Materials Landscape and Strategy



Benchmarking efforts have identified new material systems. The red box denotes the potential solution space.

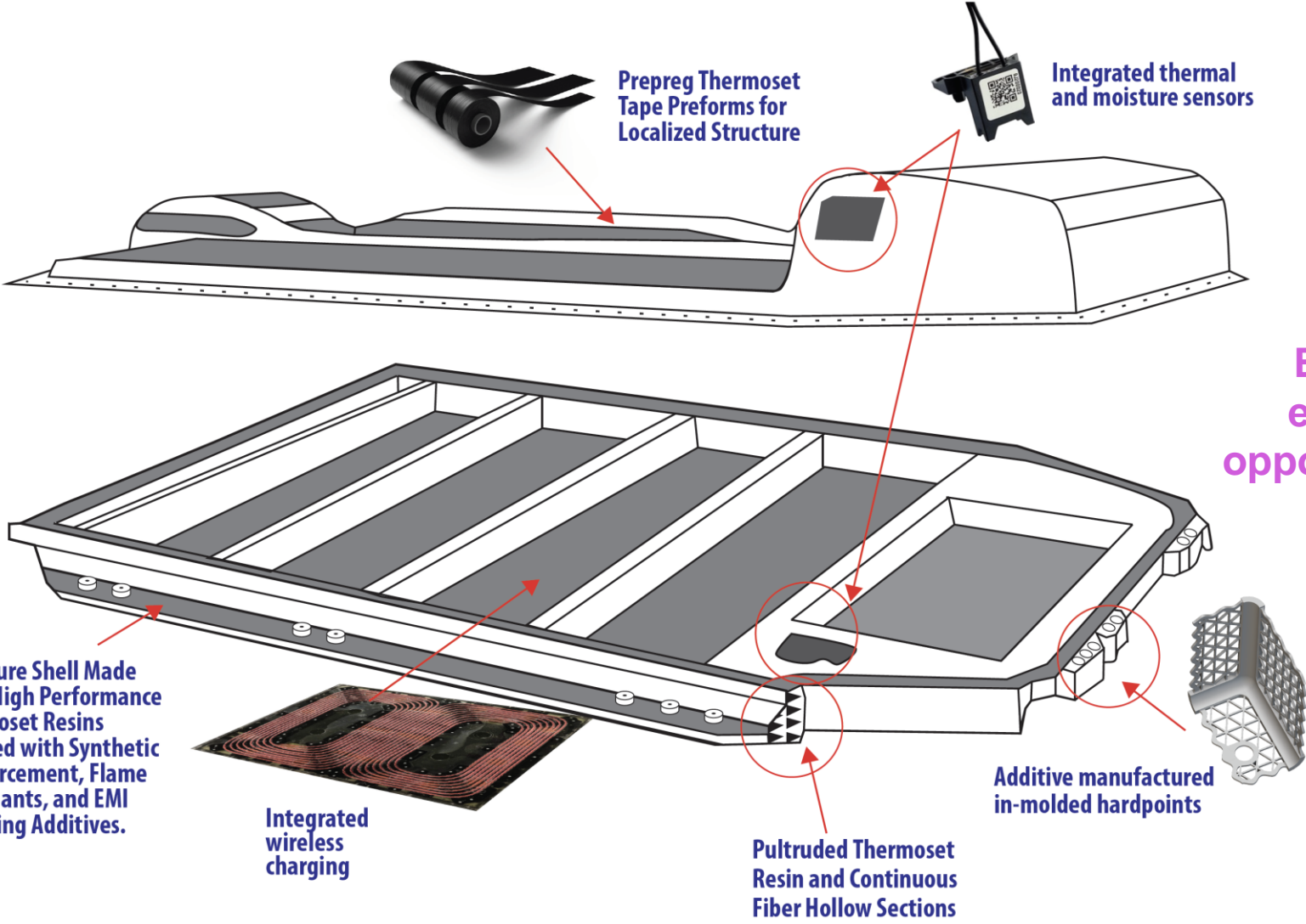
# Example 1 – Materials & Manufacturing innovations for Multi-Functional Smart Assemblies



## Example 1: Thermoplastic Injection Molding Technologies

Liftgate only shown as an example to establishing challenges and opportunities for manufacturing innovation workstreams

# Example 2 – Materials & Manufacturing Technology Development for Multi-Functional Smart BEVs Assemblies



Example 2: Compression molding with Thermosets

Battery enclosure only shown as an example to establish challenges and opportunities for manufacturing innovation workstreams