cells are expected to enable long distance travelling due to the high potential energy density of hydrogen (up to 1000 Wh/kg). On the other hand this technology is both, cost-intensive and infrastructure intensive. [19, 22] Instead, hybrid electric technology (a system with internal combustion engine and at least one electric motor) could become a new standard. The advantage of energy density could increase the total range. However, the high vibrations and resulting noise of the combustion engine could bring new challenges for operators and users. Future research on sound cancellation for both hybrid and all-electric propulsion systems can address these issues.

Second, the rapidly increasing developments on air mobility concepts in terms of eVTOL energy capacity and architecture. As it was remarked in this paper, there is wide range of configurations and concepts growing in maturity. It is certainly important that there is a diversity of solutions to promote the competition of the market, but this also raises challenges for all stakeholders of the UAM undertaking. Airport/Vertiport operators will be directed to develop risk management concepts and ensure the availability of potentially various fuel types at the take-off and landing sites. Airspace service providers will need to ensure rules' applicability and potentially restructure the low-level airspace. Air traffic control will need to consider this diverse battery capacities in the management mechanisms. Regulators will have to work hand in hand with manufactures to avoid a slowing down in the advancements in the concepts, and lastly, all operational stakeholders will have to integrate the concerns of the society to make UAM a viable solution. Further research into these topics should reveal the technical, operational and economic feasibility of the promising concepts existing today.

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