Finally, concepts validated and to reduce the production and shipping cost, this study aimed to develop a new float series for water based photovoltaic power plant specially designed for the injection molding manufacturing.

### CONCLUSION & NEXT STEPS

To reduce the cost of the Ciel&Terre® floating solar power plants, this study has highlighted the promising feasibility of a new float design composed of two elements manufactured by the injection molding technology. From a first bill of specifications and following structural and pricing feasibility studies, a proof of concept, the Hydrelio® Classic injected footbridge has been designed, refining the design scope of the new Hydrelio® V4 series. Following these first findings, a database analysis of the solar panel size has been achieved to determine the best float dimensions and pattern assembly. Then, the design of a non-sealed secondary float has been developed and successfully validated with an homogeneous stress and displacement state for all the imposed load cases. At the same time, a few snap-fit joint concepts have been tested to be integrated as an assembly method for the non-sealed float.

Finally, despite some minor modifications to complete the non-sealed secondary float design, the latter will soon be sent to a Ciel&Terre subcontractor in order to obtain a precise solution pricing and start prototypes manufacturing.