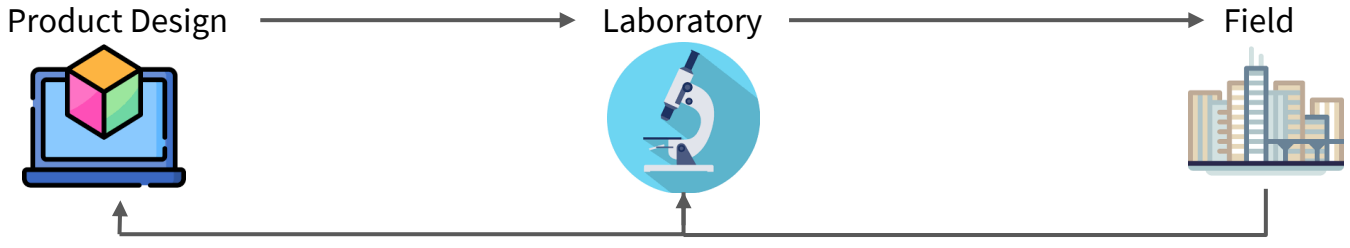


AutoMat: Automated Materials Discovery for Electrochemical systems

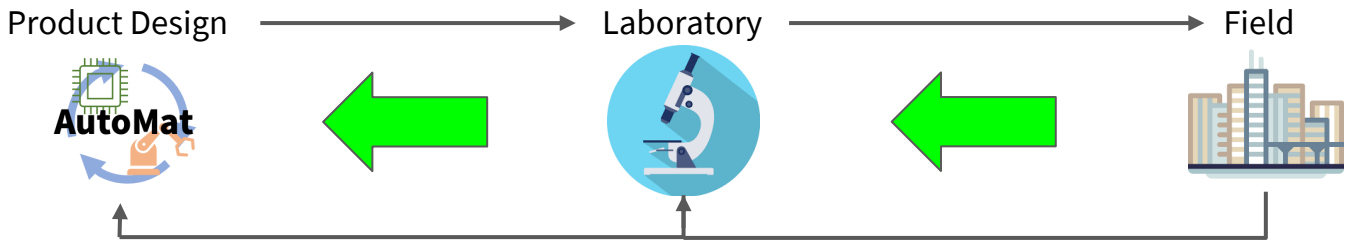
Problem

Materials design is expensive and slow due to the materials design being constrained by human-time-intensive experimentation and simulation.



Solution

AutoMat moves the entire discovery pipeline into the computer and automates decision in-loop decision-making to enable an entire electrochemical device simulation from a single function call. This function call is paired with automated design space search functionality to automatically find new candidate electrochemical systems.



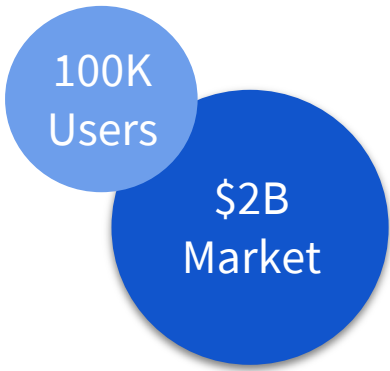
AutoMat enables moving laboratory testing to the computer and therefore field testing to the laboratory

Advantages

For benchmarks in electrocatalysis and battery electrolytes AutoMat accelerates our candidate evaluation by ~2x and ~10,000x and design space search by 3x to 15x for a total acceleration of ~6 to 100k.

Market Opportunity

Number of Users: 100,000
Total Addressable Market: \$2B



To learn more about the project, our team, and the software we are building, visit <https://www.cmu.edu/aced>



Business Model

Revenue will be generated through a utilization-based pricing model either on our own computing resources or deployed as a SaaS application on a private cloud.