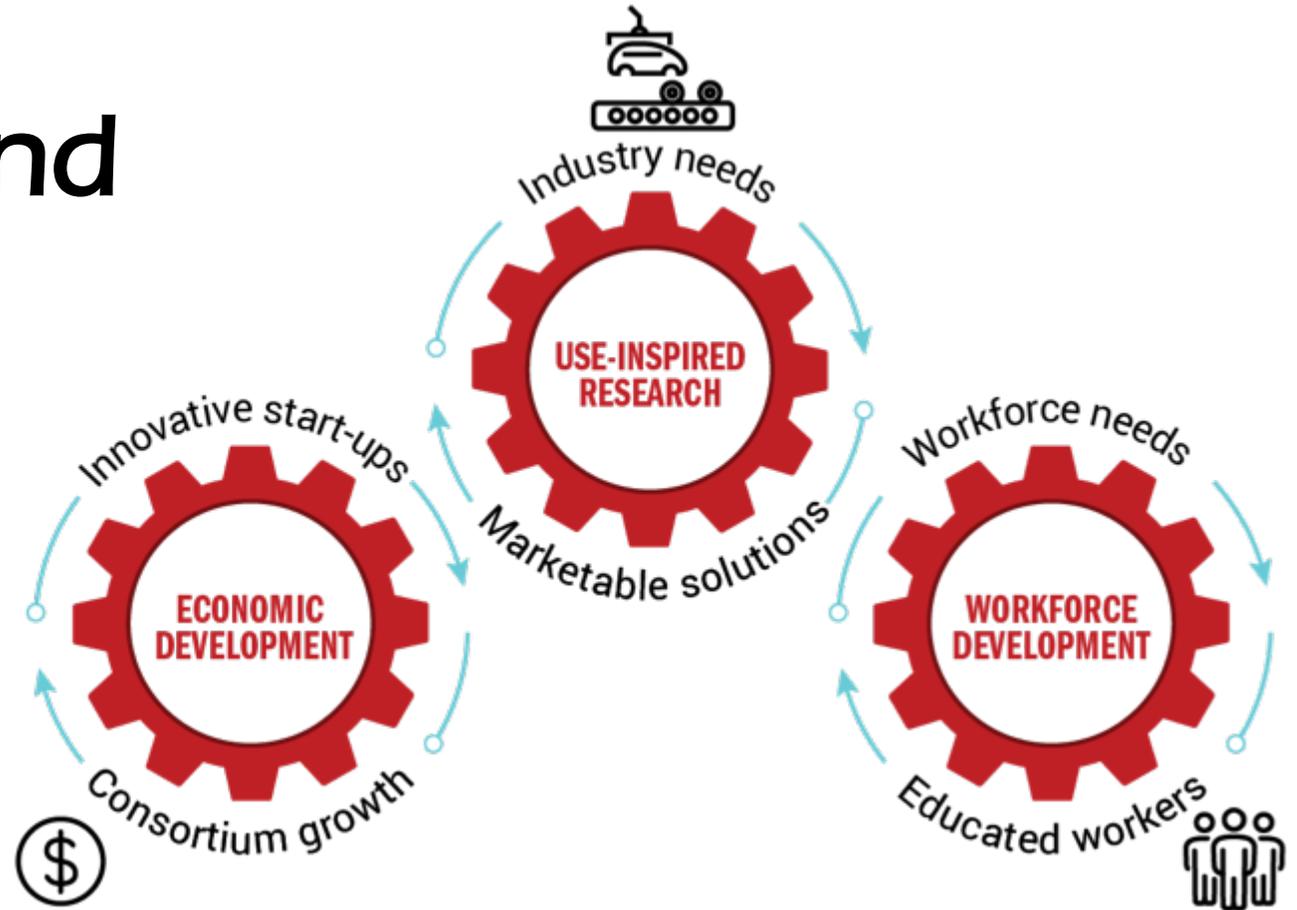


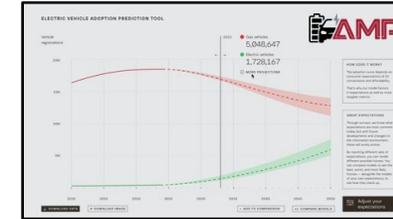
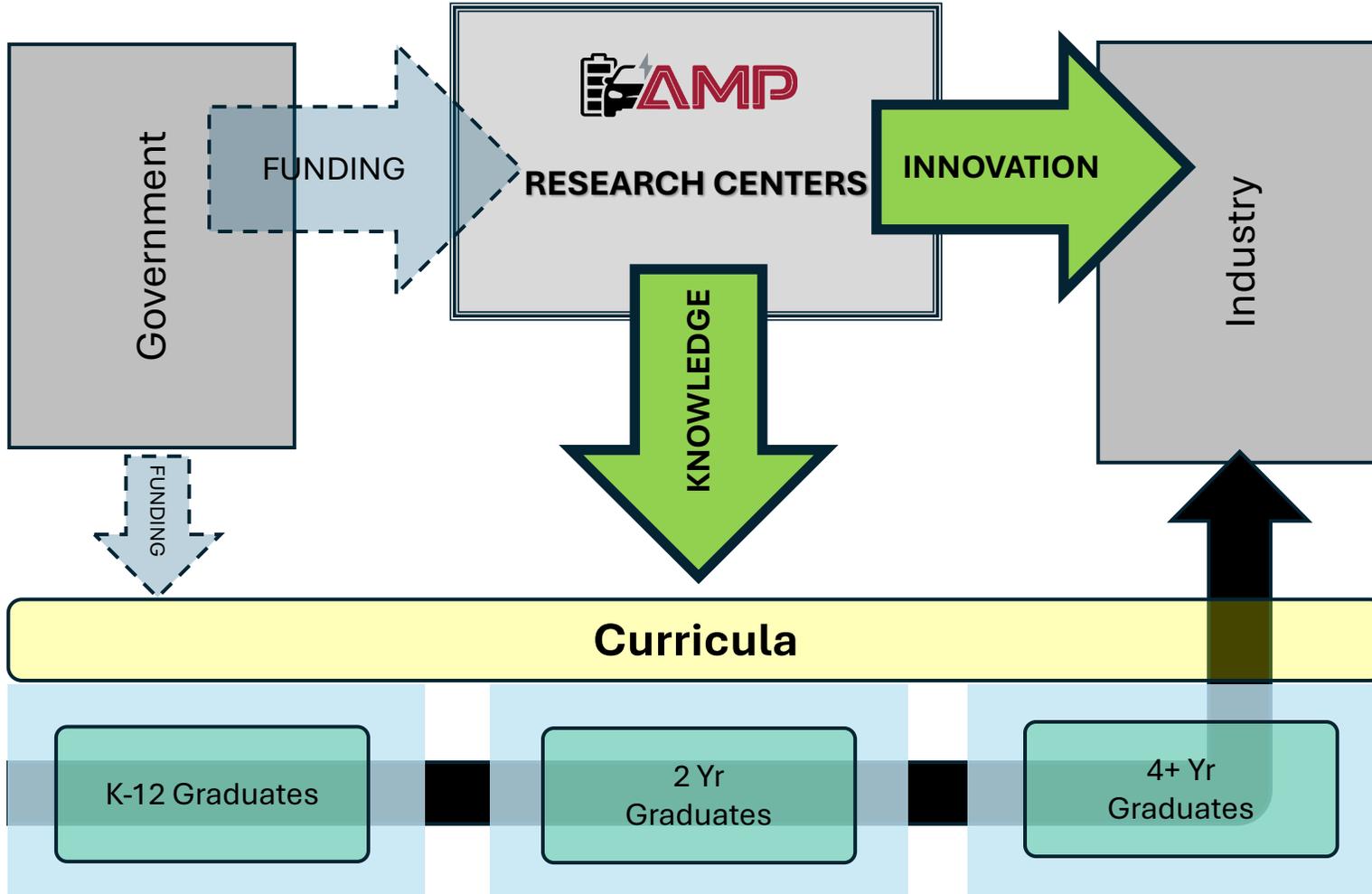


THE UNIVERSITY OF
ALABAMA

Alabama Mobility and Power Center

Mike Oatridge
Executive Director





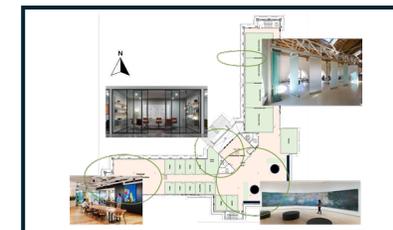
Advanced **EV Consumer** business intelligence



Laboratory for Advanced **Battery Component Research** **LAB-CR**



Laboratory for Advanced **Power Research** **LAB-PR**

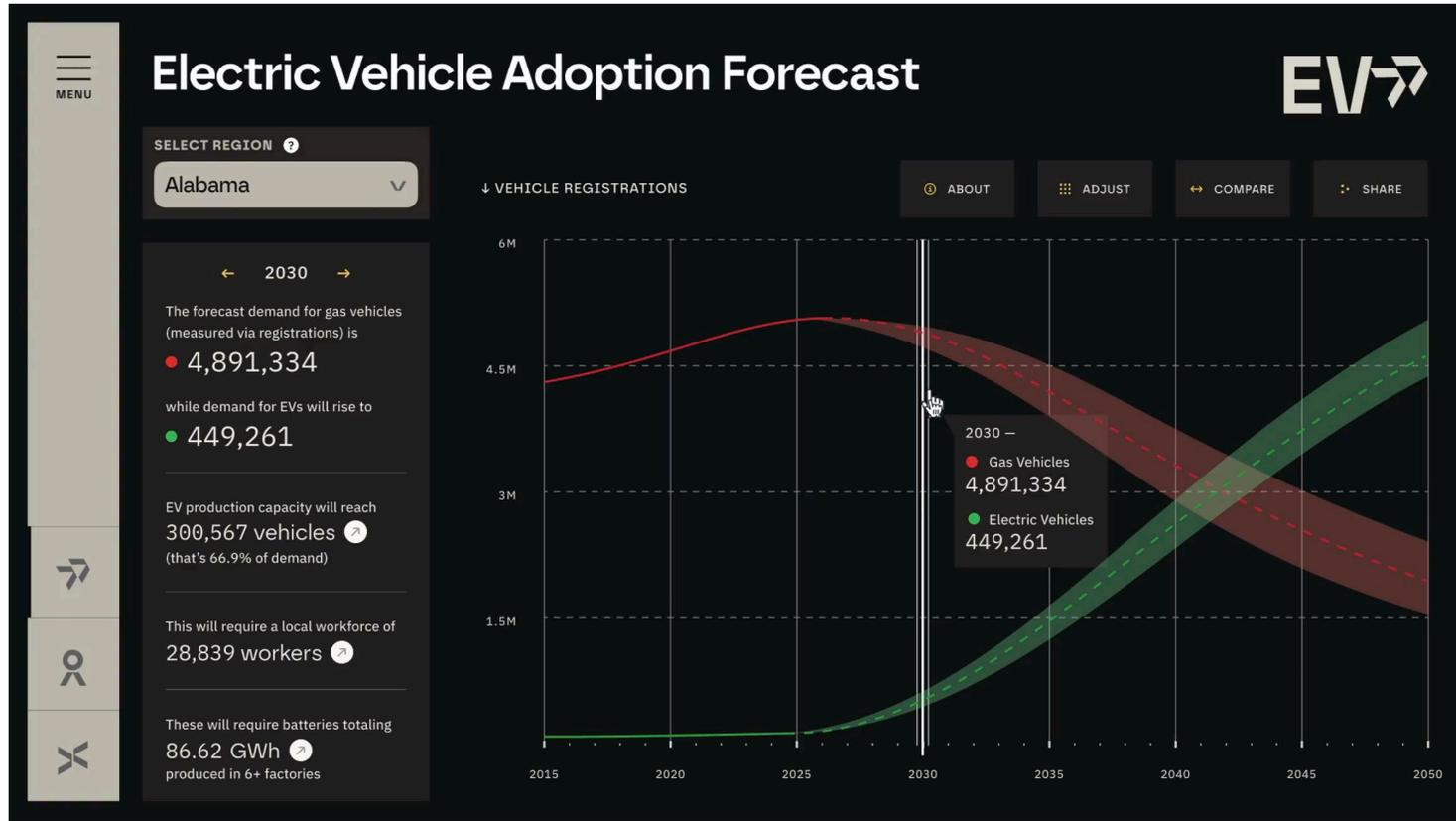


Training center for the advanced EV knowledge **NTC**



Consumer-Based Business Intelligence

EVOLVE Tool



Informed Policy research

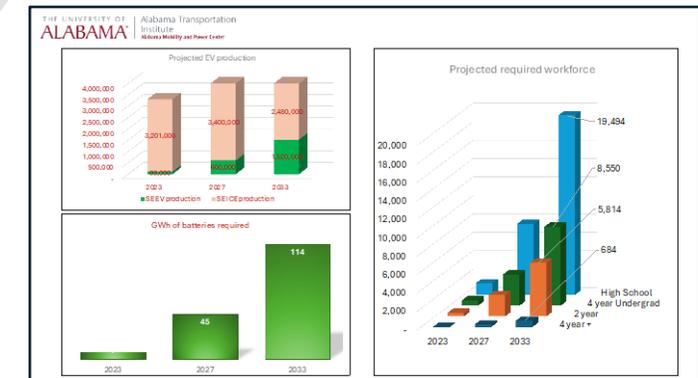
Impact of EV adoption on State Tax Revenues and Infrastructure Funding

2022 Tax Revenue Loss per 1 Electric Vehicle	
ICE Total Annual Tax (per 1 vehicle)	\$259.73
EV Total Annual Tax (per 1 vehicle)	\$201.75
Tax Revenue Loss (per 1 EV)	\$57.98

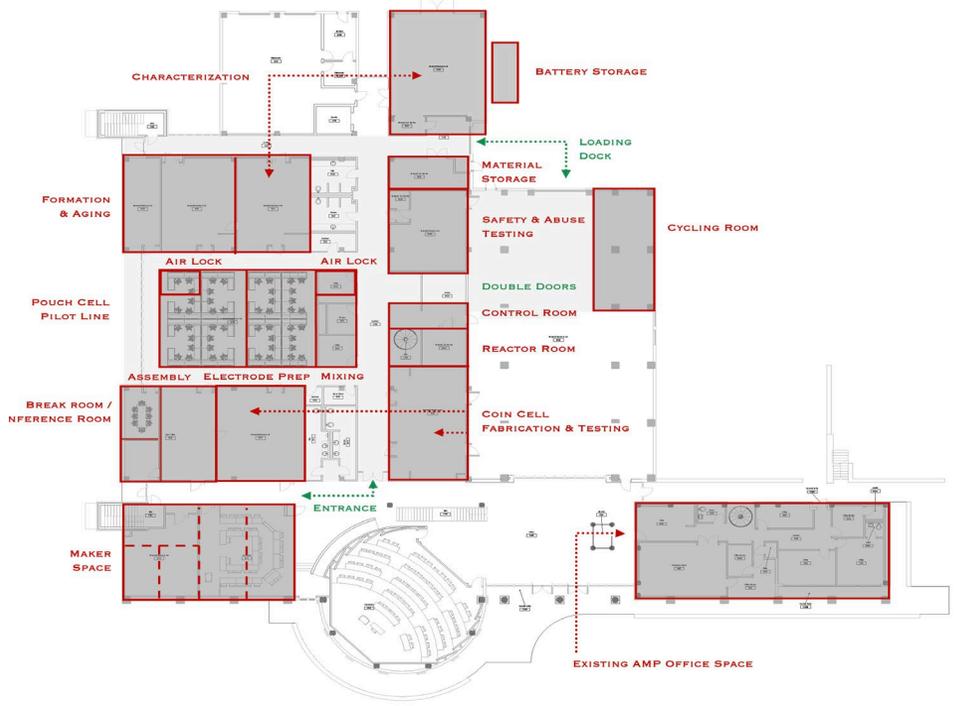
2041 Tax Revenue Loss per 1 Electric Vehicle	
ICE Total Annual Tax (per 1 vehicle)	\$328.99
EV Total Annual Tax (per 1 vehicle)	\$160.75
Tax Revenue Loss (per 1 EV)	\$173.16

Total Tax Revenue Loss				
2022		2041		Total Tax Revenue Loss for the 2022-2041 Period
Number of Registered EVs in AL	Total Tax Revenue Loss for 2022	Number of Registered EVs in AL	Total Tax Revenue Loss for the Period	
7,475	\$0.43M	1.2M	\$210.2M	\$1.3 billion

Business intelligence scale/timing research



BATTERY RESEARCH LAB

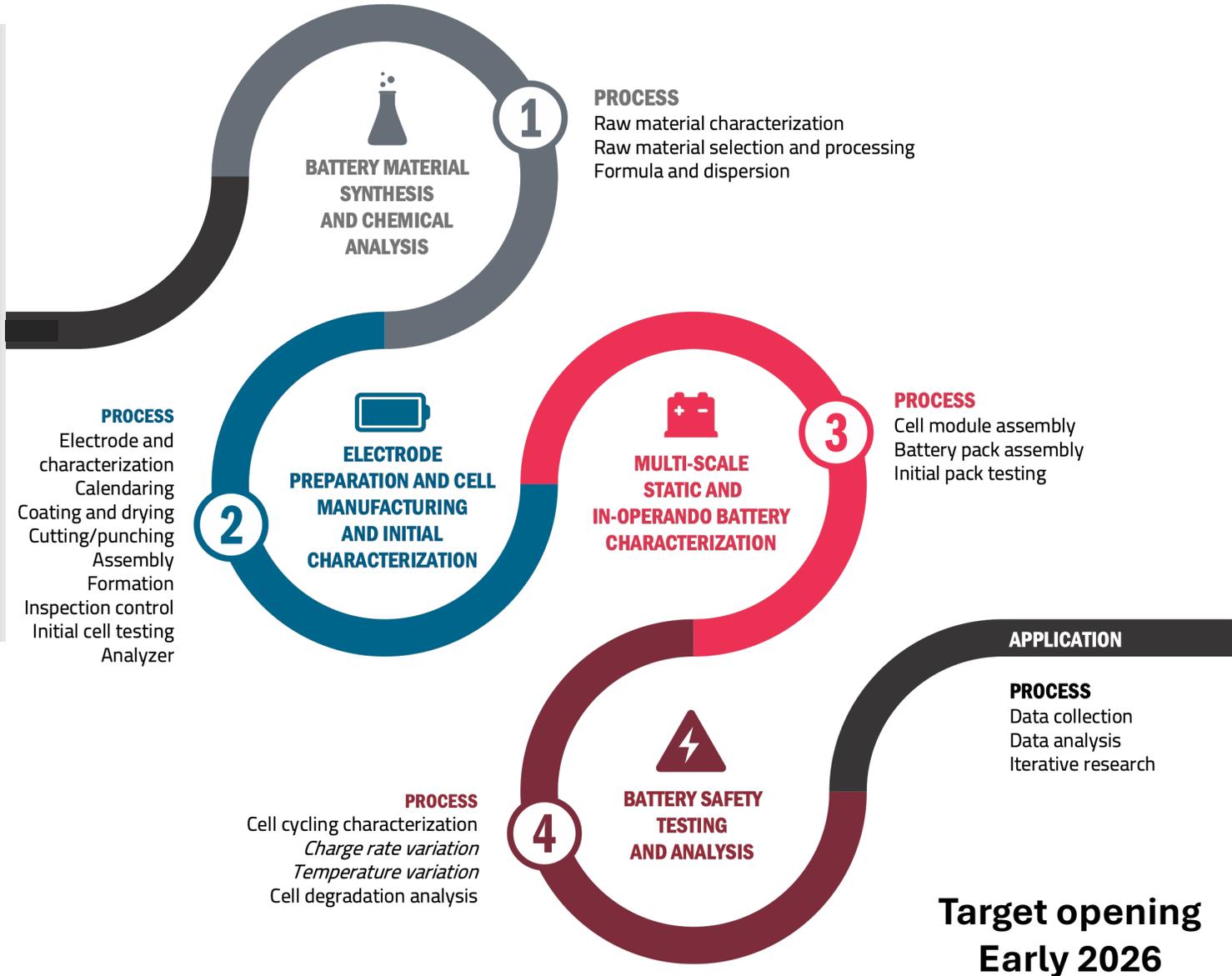


AMP BATTERY LAB

The AMP Battery Lab will be a one-stop shop for deploying battery and energy storage technologies at scale.

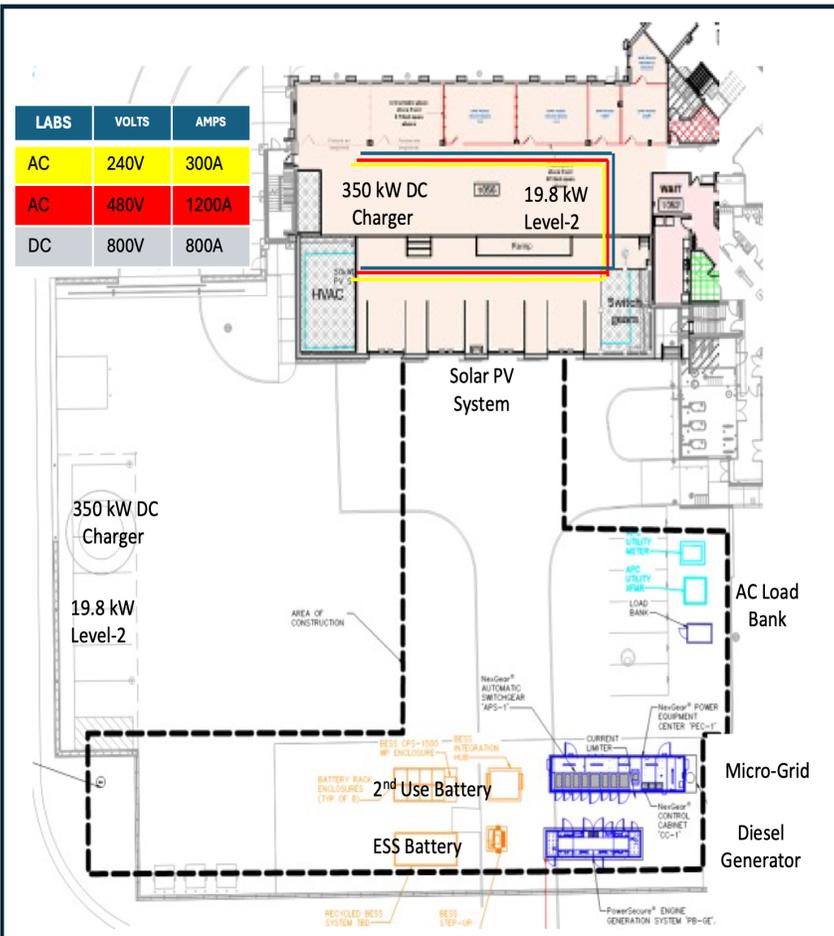
Its integrated, interdisciplinary, multi-scale approach will incorporate state-of-the-art instrumentation across all facets of the battery supply chain, enabling research and development activities that holistically address the battery ecosystem.

Comprehensive and integrated battery research thrusts process



POWER RESEARCH LAB

First Floor buildout Smart Communities and Innovation Building (SCIB)



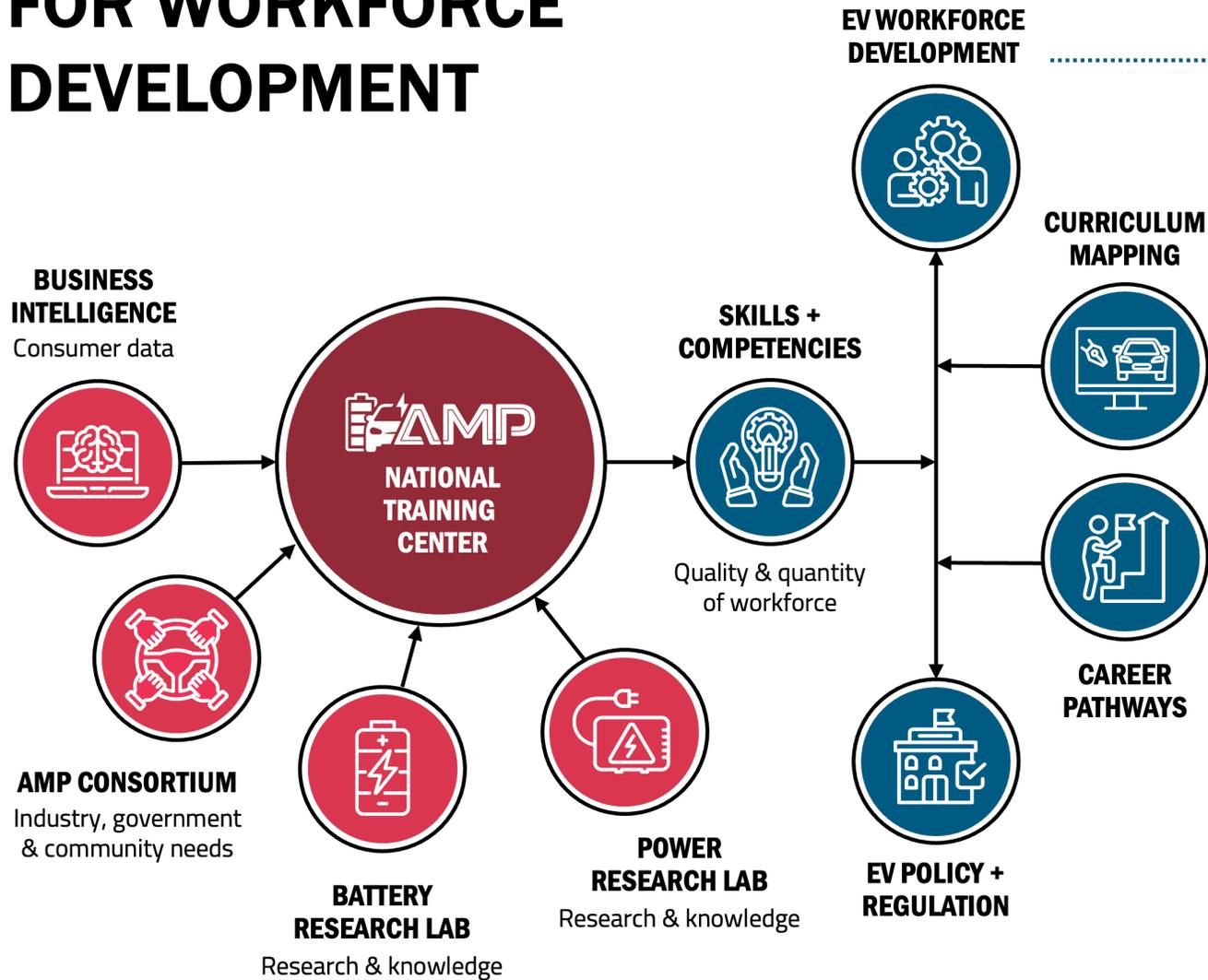
Ensuring grid stability and resiliency as we transition toward electrified transportation

July 2024 | Occupancy & Limited research capability
December 2024 | Full capability

Research scenario	Variant	Diesel Generator	Micro-Grid	AC Load Bank	Solar PV System	2 nd Use Battery	ESS Battery	DC Charger	AC Charger	240 V bus	480V Bus	800V DC Bus
Grid Resiliency Peak load shaving	Solar/Wind/Battery supplementation 1. DC > AC > DC (grid level) 2. DC > DC (local level) 3. DC > DC > AC (excess to grid)	●	●	●	●	●	●		●	●	●	
Grid demand shifting Time defined charging	Electricity rate incentive prediction AC > DC (grid level) Software based solution development AC > DC (grid level)	●	●	●	●	●	●		●	●	●	
Grid outage recovery peak load demand	Predictive load management Power rationing modeling Solar/Wind/Battery supplementation	●	●	●	●	●	●	●	●	●	●	
Complete Grid loss charging capability	Solar/Wind/Battery supplementation DC > DC (local level)				●	●	●	●				●
Grid shutdown charging capability	Solar/Wind/Battery supplementation AC + AC renewable and local to DC		●	●	●	●	●	●	●			●

Opening Spring 2025

NTC LONGITUDINAL ECOLOGICAL MODEL FOR WORKFORCE DEVELOPMENT



	PREPARATION	CAREER	INITIAL TRAINING	UPSKILLING	CURRICULUM DEVELOPMENT	NATIONAL CLEARINGHOUSE
	GRADUATE SCHOOL	RESEARCH AND DEVELOPMENT	ALABAMA COLLEGES AND UNIVERSITIES	AMP NATIONAL TRAINING CENTER		
K-12 STEM	STACKABLE FOUR-YEAR COLLEGE OR UNIVERSITY	ENGINEERING, TECHNICAL LEADERSHIP				
K-12 STEM	COMMUNITY COLLEGE	SKILLED TRADE TECHNICIANS	ALABAMA COMMUNITY COLLEGE SYSTEM	ACCS	AMP NTC, ACCS, AIDT, AWC	AMP NATIONAL TRAINING CENTER
K-12 STEM	CERTIFICATIONS, MICRO-CREDENTIALS	PRODUCTION TECHNICIANS	AIDT/REGIONAL WORKFORCE CENTERS	AIDT, AWC		



AMP MISSION

INDUSTRY, ACADEMIA & GOVERNMENT

working together focused on

RESEARCH

enabled innovation driving

ECONOMIC

and

WORKFORCE

DEVELOPMENT

through understanding the needs of the

EV INDUSTRY

Join the AMP Consortium!

The AMP Consortium provides a collaborative environment for academia, industry, and government to conduct innovative electric vehicle-focused mobility and power research.

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