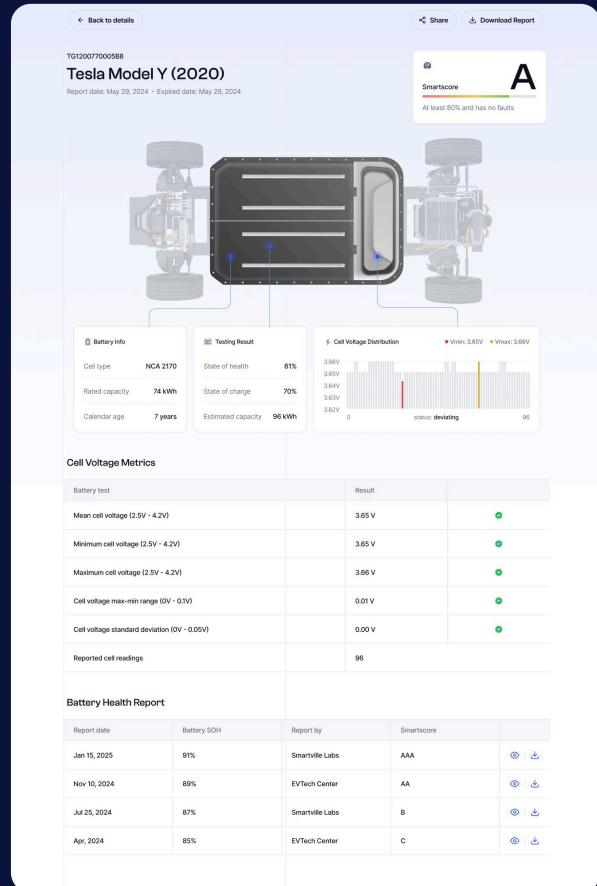




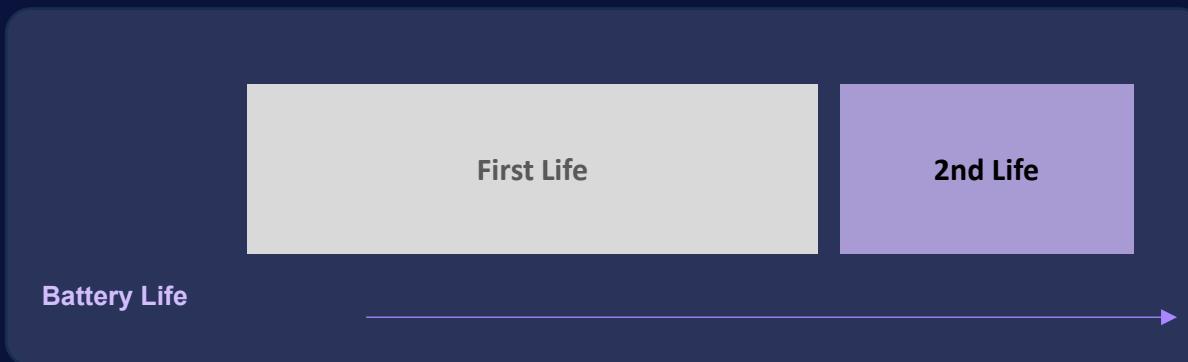
# Enabling Data Transparency in Second-Life Batteries for Stationary Applications



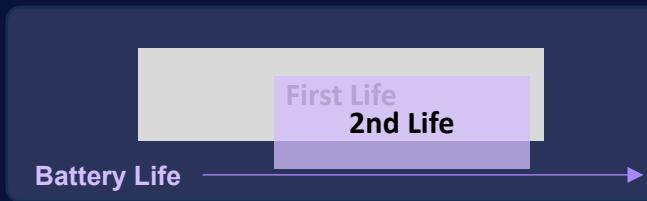
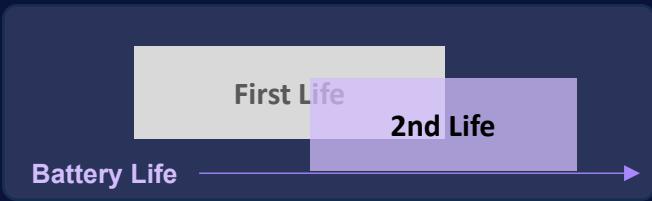
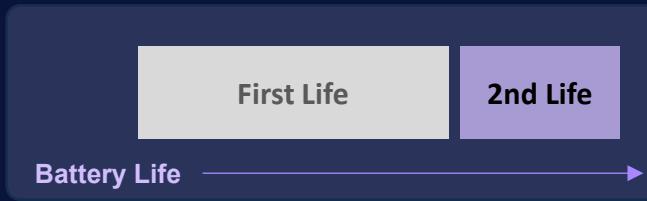
Antoni Tong  
Founder & CEO  
antonи@smartville.io



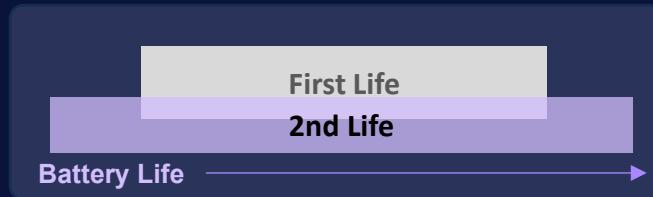
# What exactly is a 2<sup>nd</sup> life battery



# What exactly is 2<sup>nd</sup> life battery



# What exactly is 2<sup>nd</sup> life battery



**Battery OEMs**

**Auto OEMs**

**Fleets**

**Businesses with Fleets**

**Auto Insurances**

**Auto Auctions**

**Auto Dismantlers**

**Auto Recyclers**

**Battery Recyclers**

**BESS Project Developers**

**The list goes on ...**

# Smartville develops a circularity platform to efficiently assess, trade, and reuse batteries



Retired  
Batteries

Data

Control

Reuse

# From Retirement to Reuse: Creating a Path of Least Friction



## Supplychain - Assess and route batteries to be reused

Smartville **Periscope** is a portable tool for EV and battery assessment, providing real-time insights into battery health.

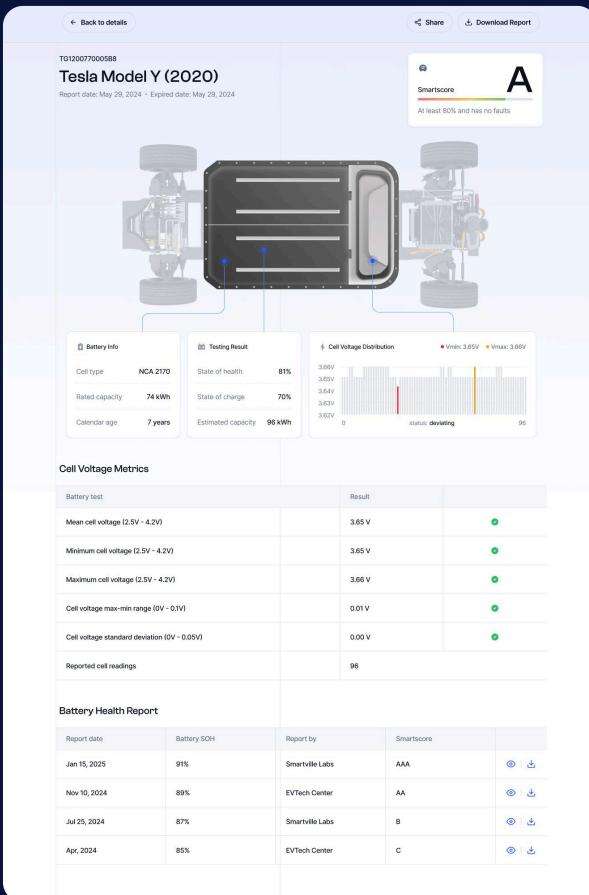
Smartville **Whole Battery Catalog** data platform helps stakeholders to quickly inventory battery reports, establish buyer-seller trust, and trade batteries for reuse and repair.

## Repurposing - Make it easier to reuse batteries

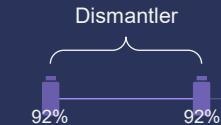
Our proprietary battery pack controller **BatteryConnect** offers a simple, scalable path to repurpose EV batteries into a wide range of energy storage applications.

Our flagship turnkey solution, **Smartville 360**, unlocks storage value without the cost and risk of overseas alternatives.

# Establish A Chain of Data Transparency



# Establish A Chain of Data Transparency



## State of Health



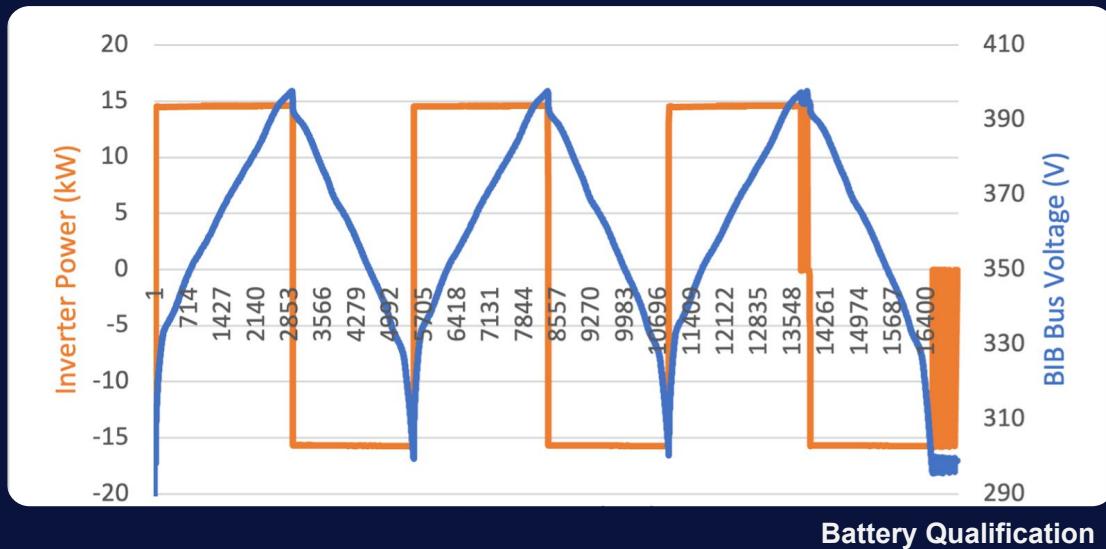
## Data

- Unique ID
- Battery type
- Calendar Age
- Estimated Cycles
- Voltage, SOC, SOH
- Component Failure
- Estimated Value
- Estimated Energy
- Remaining Life

# Establish A Chain of Data Transparency



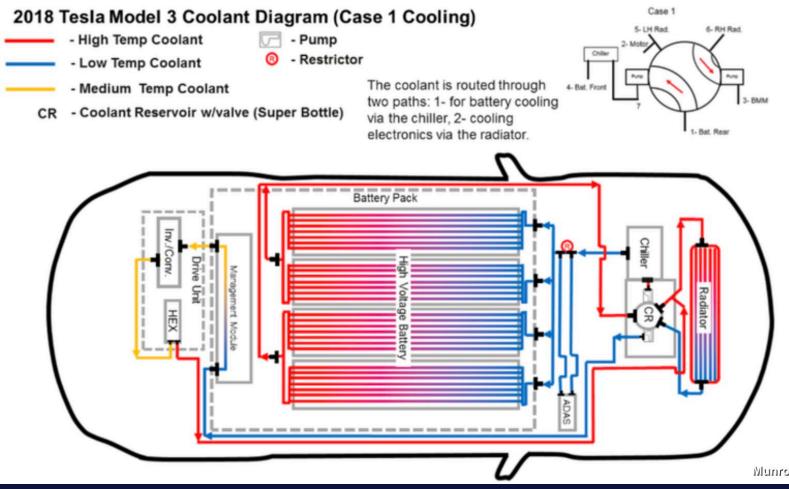
State of Health



# Establish A Chain of Data Transparency

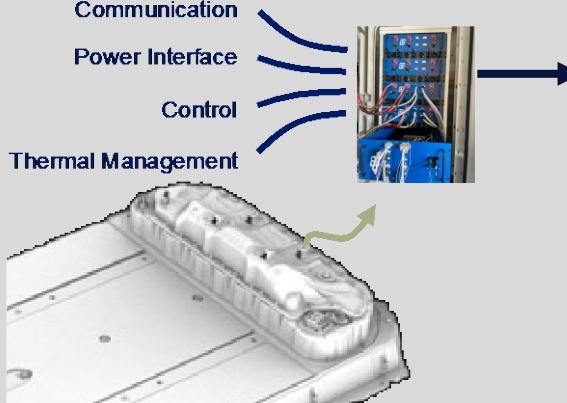


State of Health

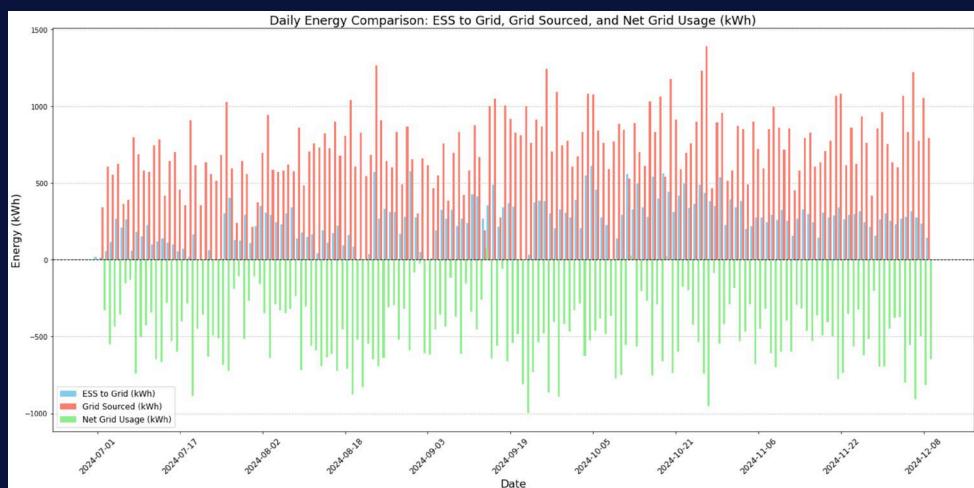
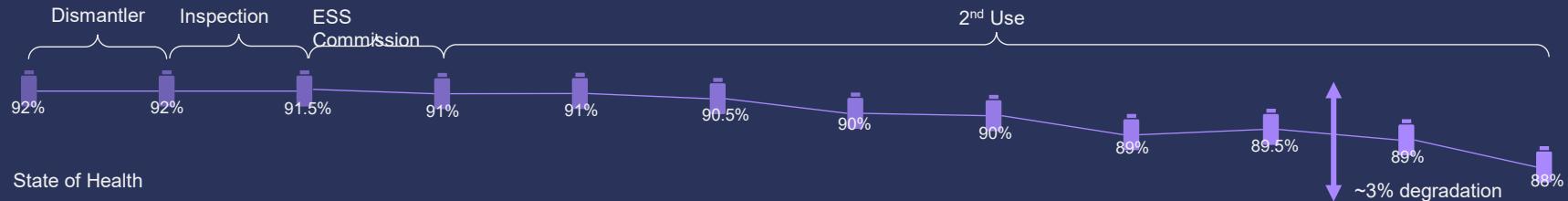


## BatteryConnect

Communication  
Power Interface  
Control  
Thermal Management



# Establish A Chain of Data Transparency



~3% degradation/year

# Expanding the Use Case for Battery Data



+ Live data stream



Towing and first response



+ Live data stream



Battery logistics and storage



+ Live data stream  
+ Cycle data



Battery Qualification

# Build A Data Platform Together

- Data travels more easily than the batteries themselves.
- Consistent and transparent data benefits all stakeholders involved in handling, shipping, reusing, and recycling.
- Build a battery “credit report” that provides a record of health history and key lifecycle events.



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