

# What Typhoon does ...

- **Development**
  - Modeling and Simulation for Power Electronic system and controls
    - Take your controller and put it “In the Loop” with models of your inverter (power electronics)
  - **Functionality TESTING and OPTIMIZATION**
  - Verification and Validation of control at component level
    - Flow into subsystem and system testing
- **Lifecycle Engineering**
  - Concept to Decommissioning
  - Integration with other systems
    - AMMPs
    - IPD
    - Etc
  - **Automated and Regression TESTING over time**
- **Streamline Engineering**
  - HILCOMPATIBLE
  - HILTESTED



Typhoon HIL

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# Academic Users

100+ institutes on 6 continents



# Industrial Users

## Critical Power & Heavy industry

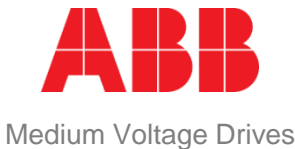
Distribution  
Microgrids



Marine Power  
Systems



Motor drives



# Industrial Users (Cont)

## Renewable energy

### Solar inverters



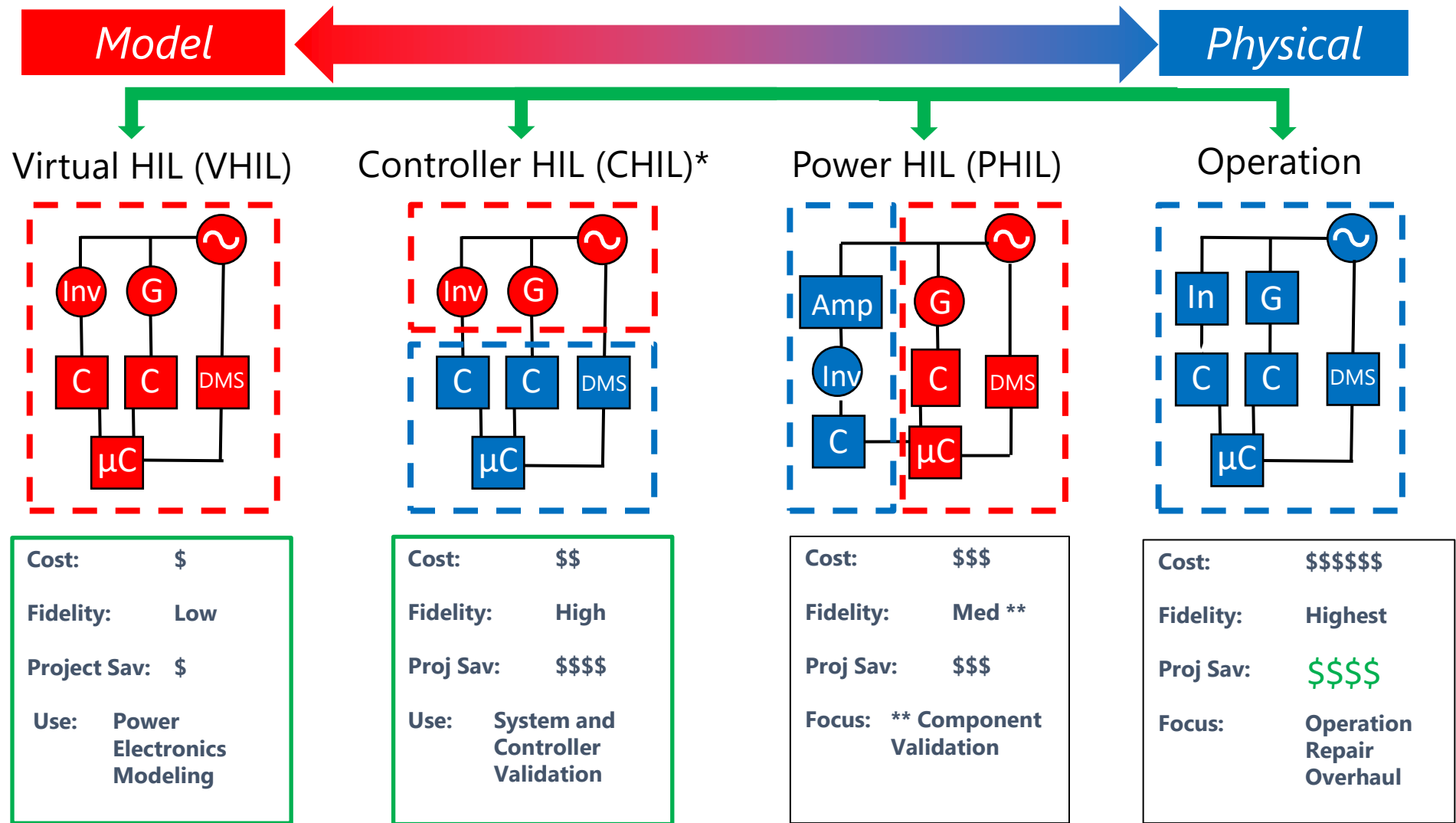
### Battery UPS



### Wind converters



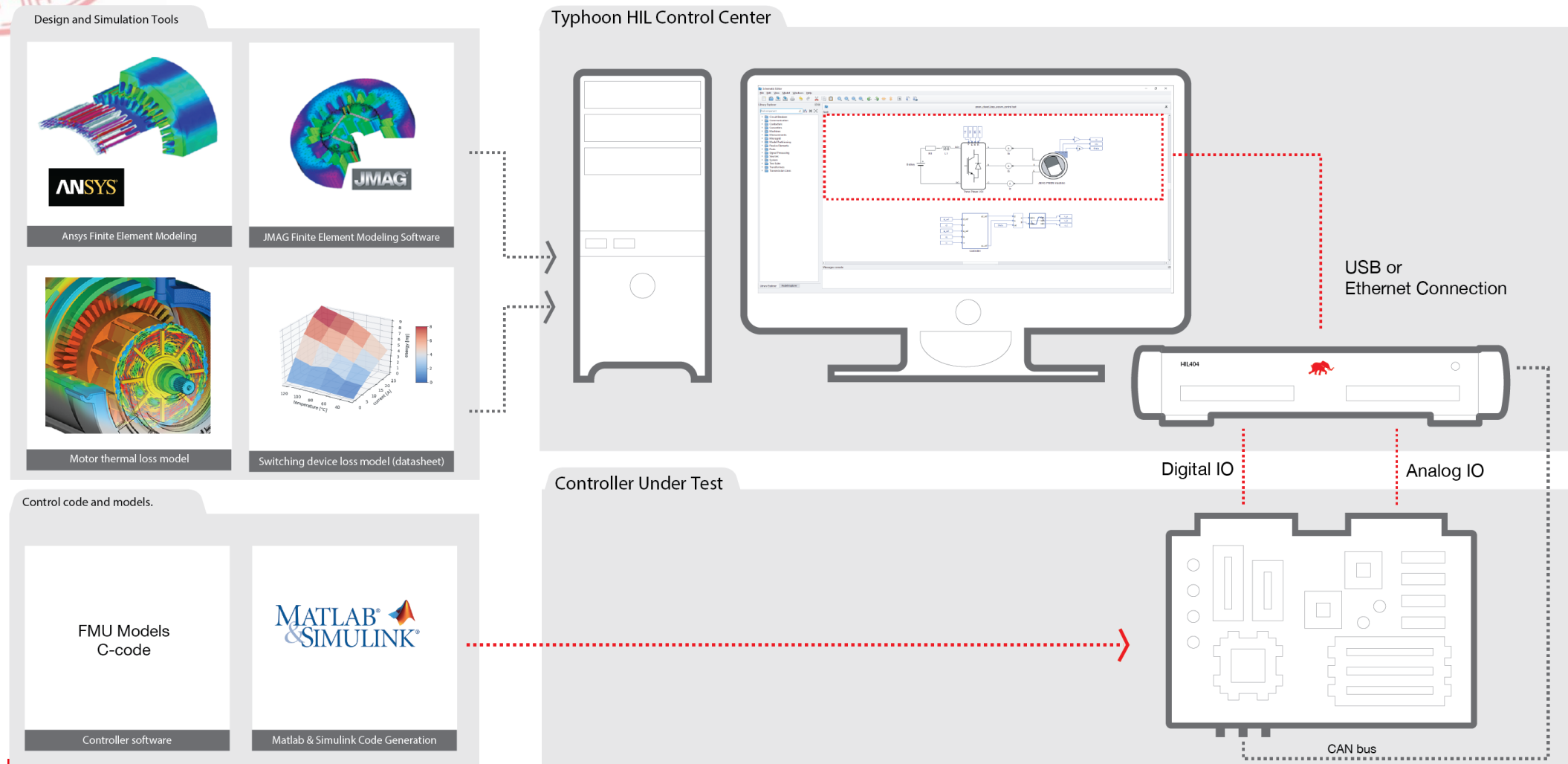
# Definitions



\* Actual controller or code only (SIL)

# Typhoon HIL real-time simulation.

Controller Hardware In the Loop (CHIL). Model-based software design and testing.



# Typhoon HIL: Vertically Integrated Solution

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## services

Expert consulting by application engineers  
On-site and off-site training  
HIL software, firmware and hardware customization

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## software

Vertically integrated system  
Graphical modeling of power circuits  
Custom test interfaces  
Test automation with open-source  
Python  
Technical support from product developers

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## hardware



HIL 604



HIL-Controller  
interfaces



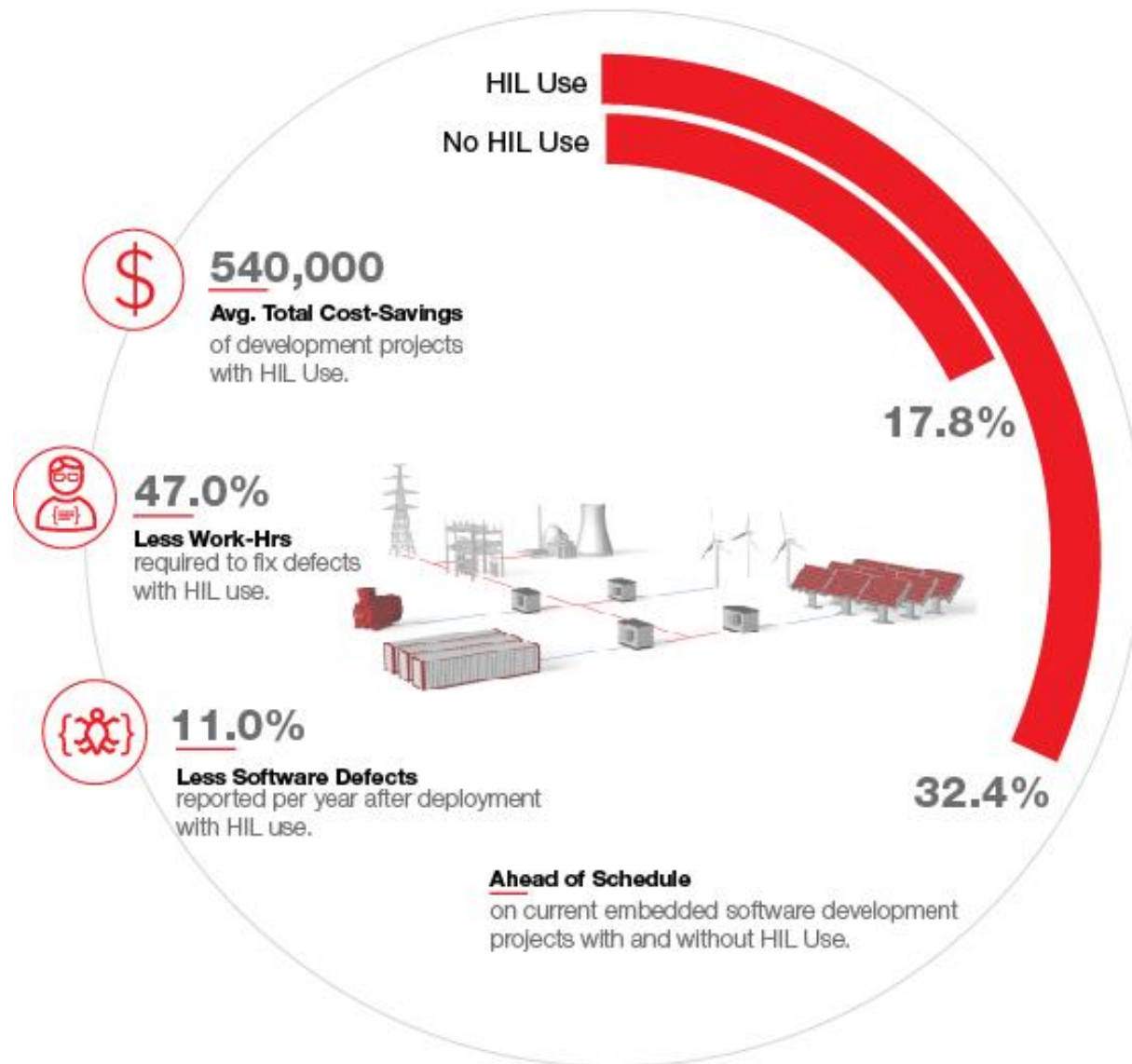
Large scale  
simulators







# Why HIL?



Save Money

Save Time

Increase Quality

Scale Design

Resilient Design

Online Learning Platform at <https://hil.academy>



# Welcome to HIL Academy!

The online learning hub for professionals and students. Master Model and Simulation – Based Systems Engineering tools for future power electronic and power systems engineers.

Learn more





### Closest Typhoon HIL Offices

- Boston, MA, USA
- Norfolk, VA USA
- Vancouver, BC, Canada

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