

# Hands-On: Datalogging with FlexLogger or Python

# Agenda

Introduction

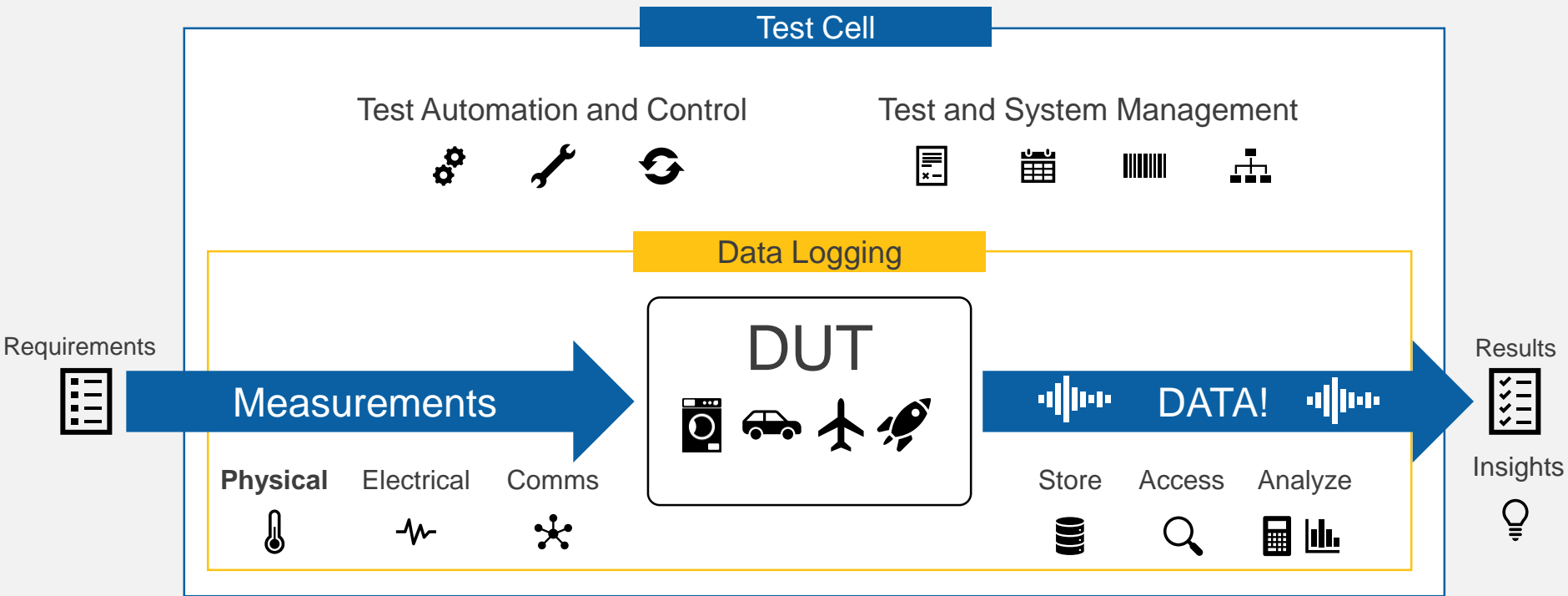
(5 Minutes)

FlexLogger and/or Python Hands-On Exercises

(~1 Hour)

Wrap Up

(5 Minutes)



# Datalogging Examples



Structural Test



Component  
Characterisation



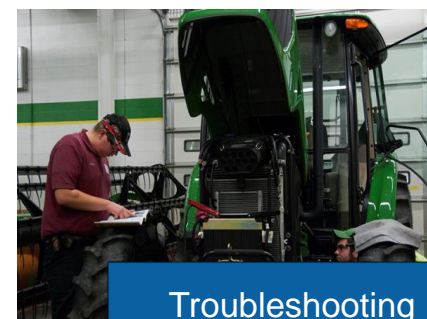
Durability Test



Performance Test



System Dynamics Test



Troubleshooting

# Different Options for Automating NI Hardware





## Acquire, Visualize, and Log Data All Without Programming



### Application Areas

- Physical component V&V
- Lab troubleshooting and diagnostics
- Environmental validation tests

# Python APIs for NI Hardware



```
import nidaqmx

task = nidaqmx.Task()
task.ai_channels.create_voltage_channel('cDAQ1Mod1/ai0')
print task.read(number_of_samples_per_channel=10)
task.clear()
```





# Components of a Measurement System

Sensor



Hardware



Signal  
Conditioning

Analog-to-Digital  
Converter

Software



Driver  
Software

Application  
Software

# CompactDAQ Hardware



# CompactDAQ Hands-On

Option 1: Explore FlexLogger

Option 2: Collect data using Python

# Coffee Break

