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## Developing a Cyber Incident Communication Management Exercise for CI Stakeholders

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# Today's topic

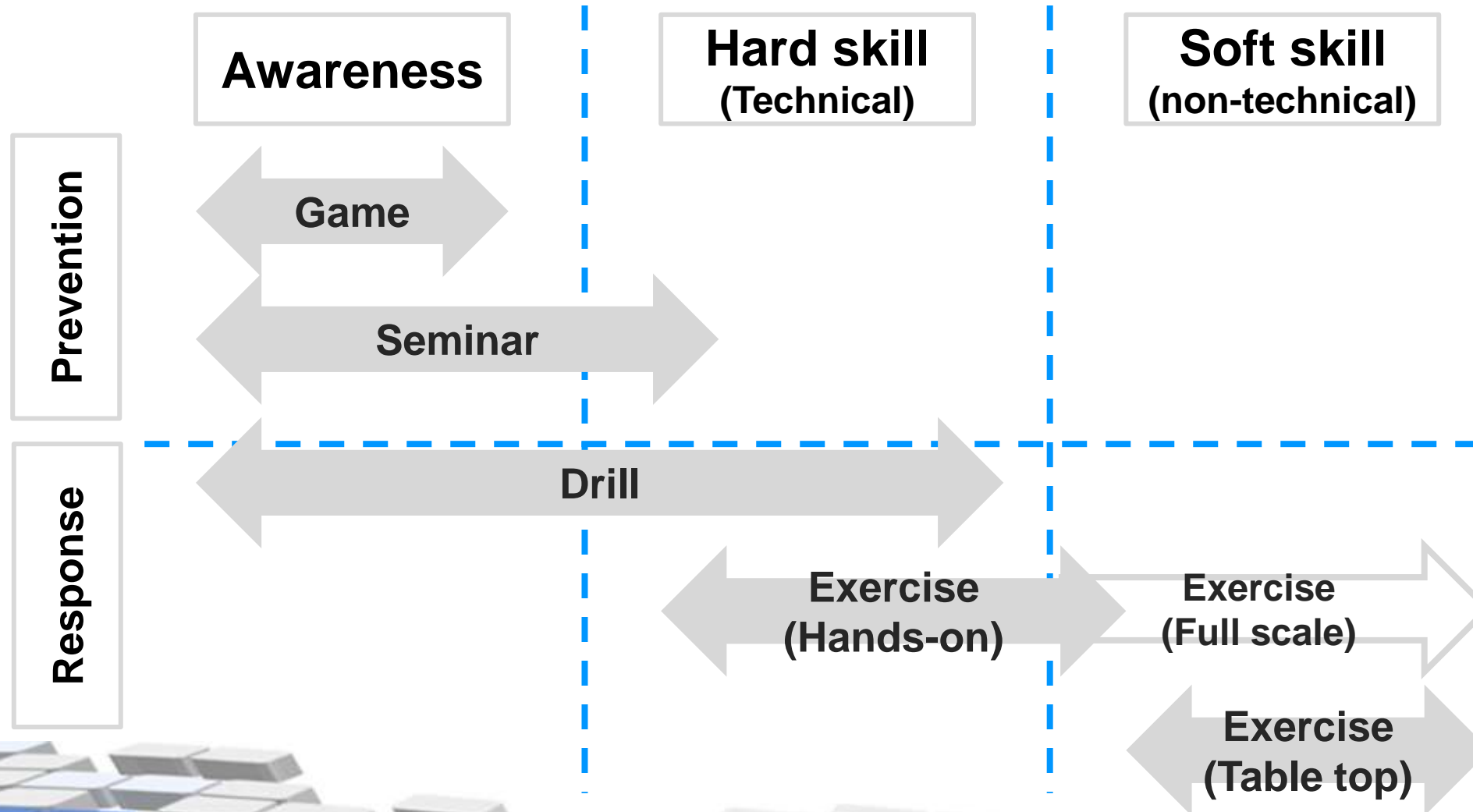
## Background

- Types of cyber security training
- Current Trends in Japanese ICS security training

## Industrial Control Systems (ICS) security exercise @NIT

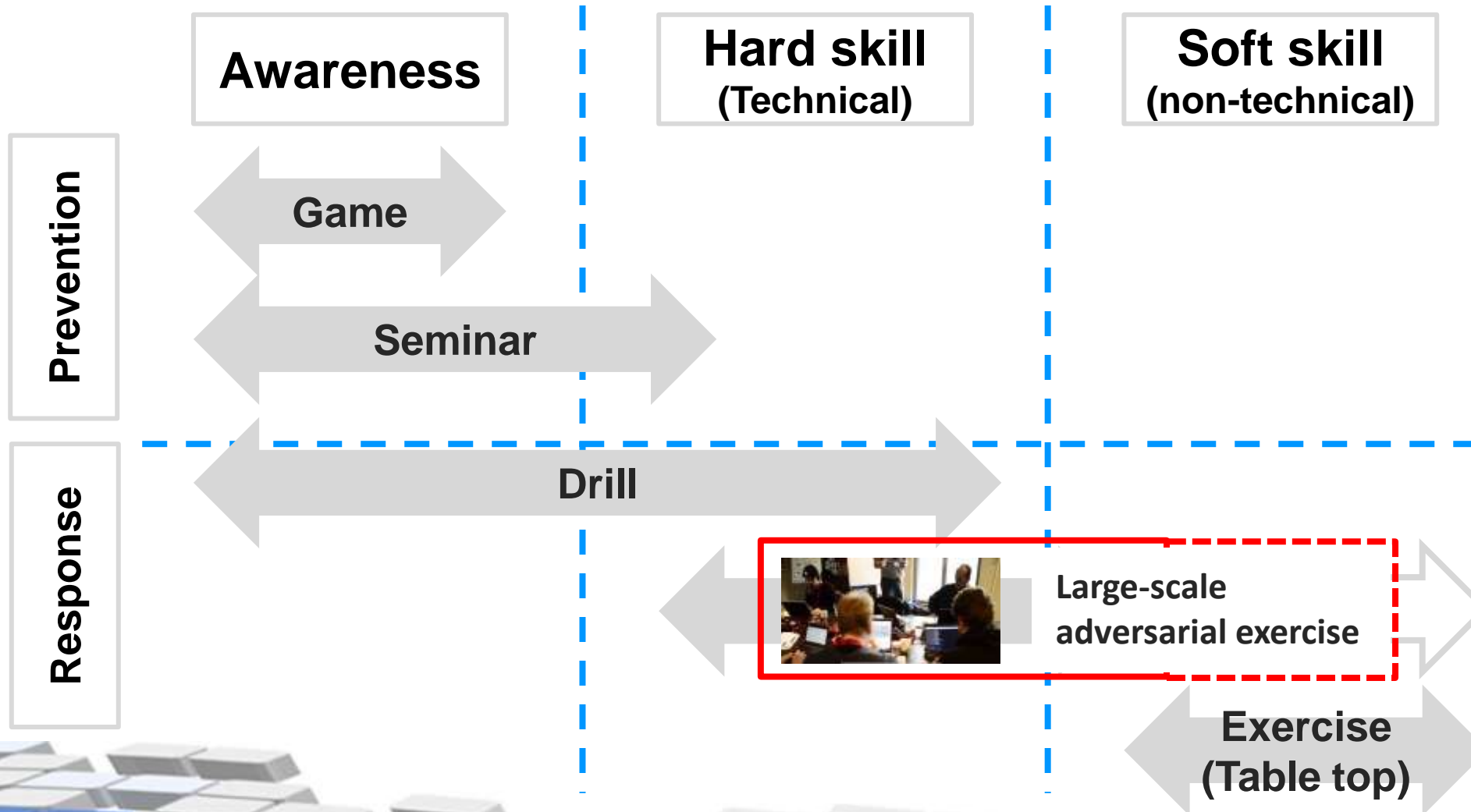
- Contents
- Results from the pilot exercise

# Mapping cyber security exercise



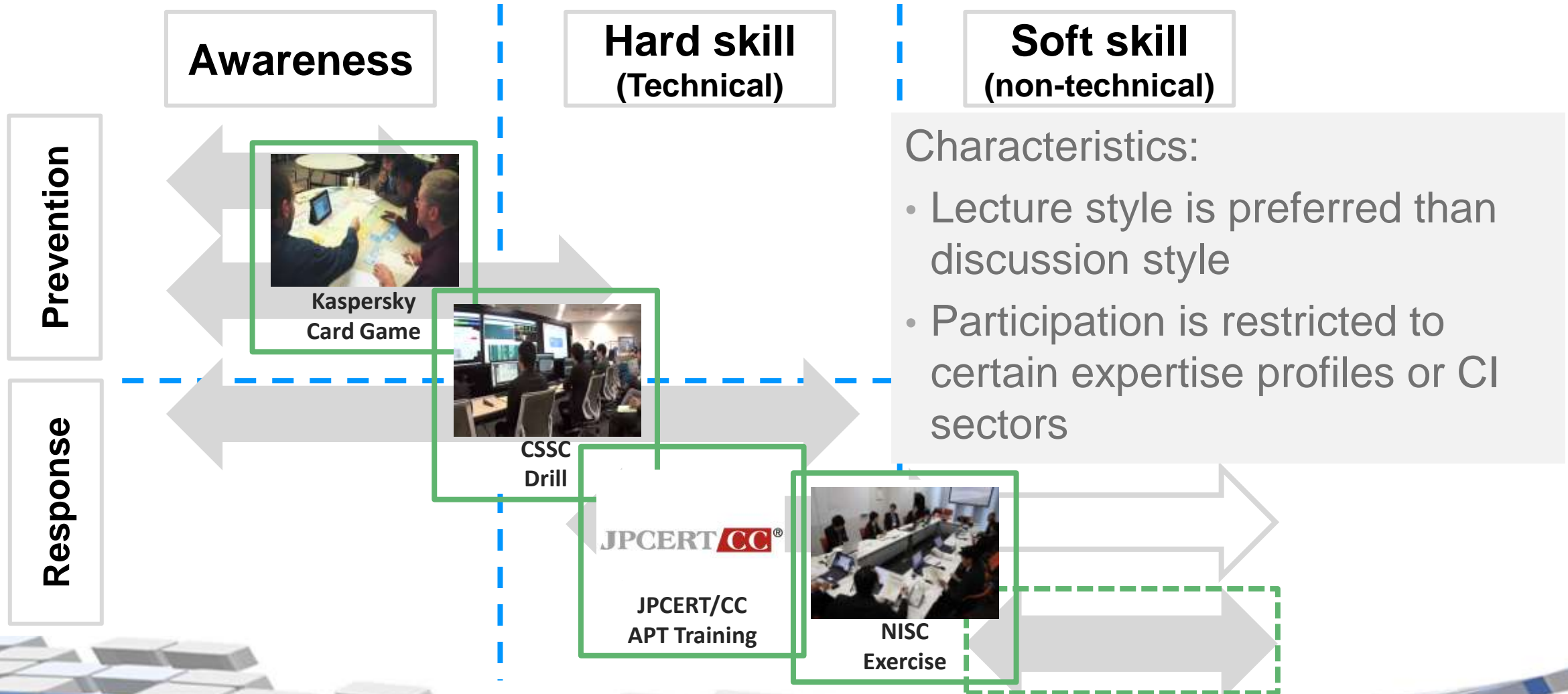
# Mapping cyber security exercise

Example: large-scale adversarial exercise



# Mapping cyber security exercise

## ICS security exercise in Japan



# ICS security exercise @NIT

## Scope

### **Focus on soft skill**

- Table top exercise
- Highlight the importance of communication and cooperation

### **Allow knowledge transfer across sectors**

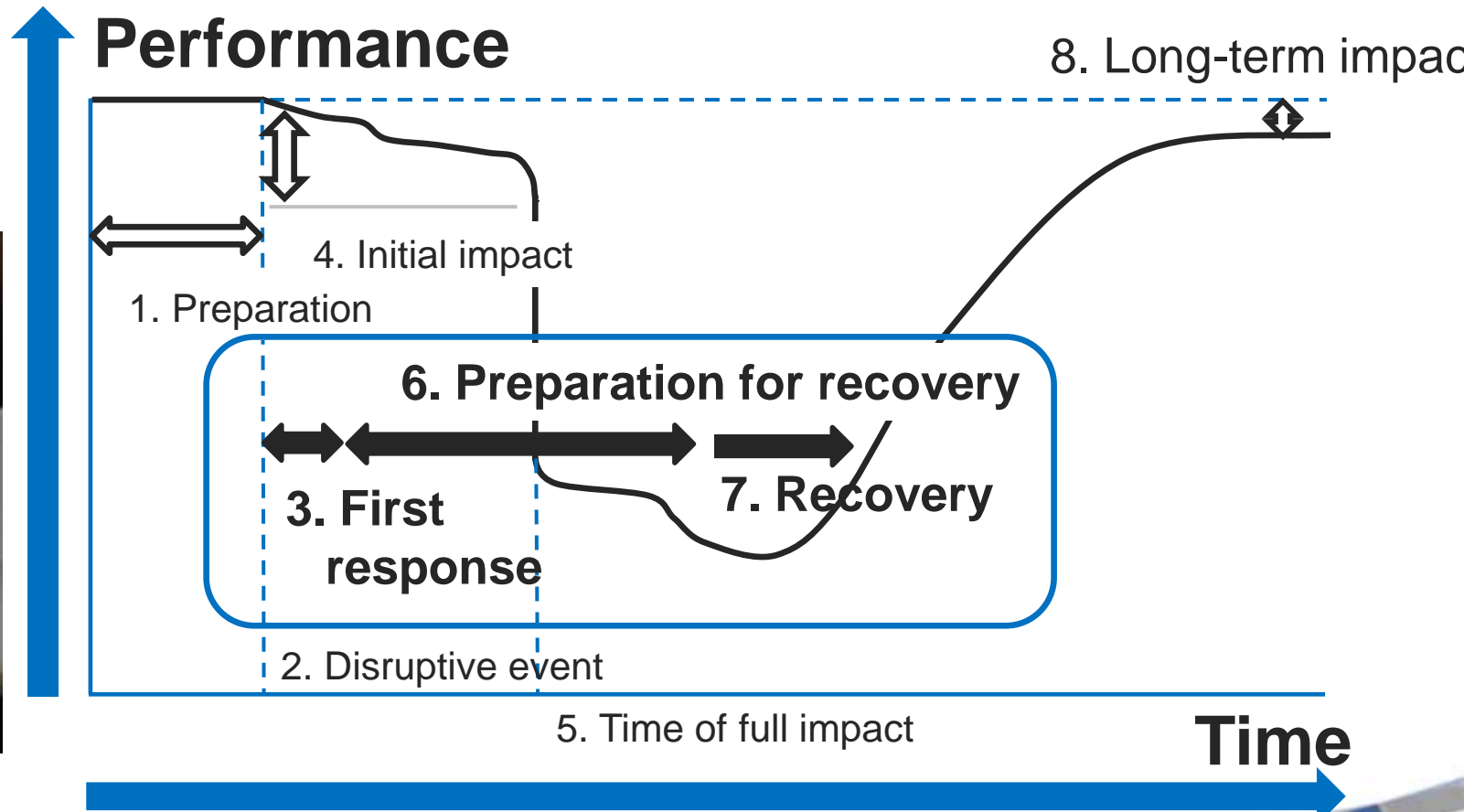
- Discussion based exercise
- Open to participants from all expertise profiles and CI sectors



# ICS security exercise @NIT

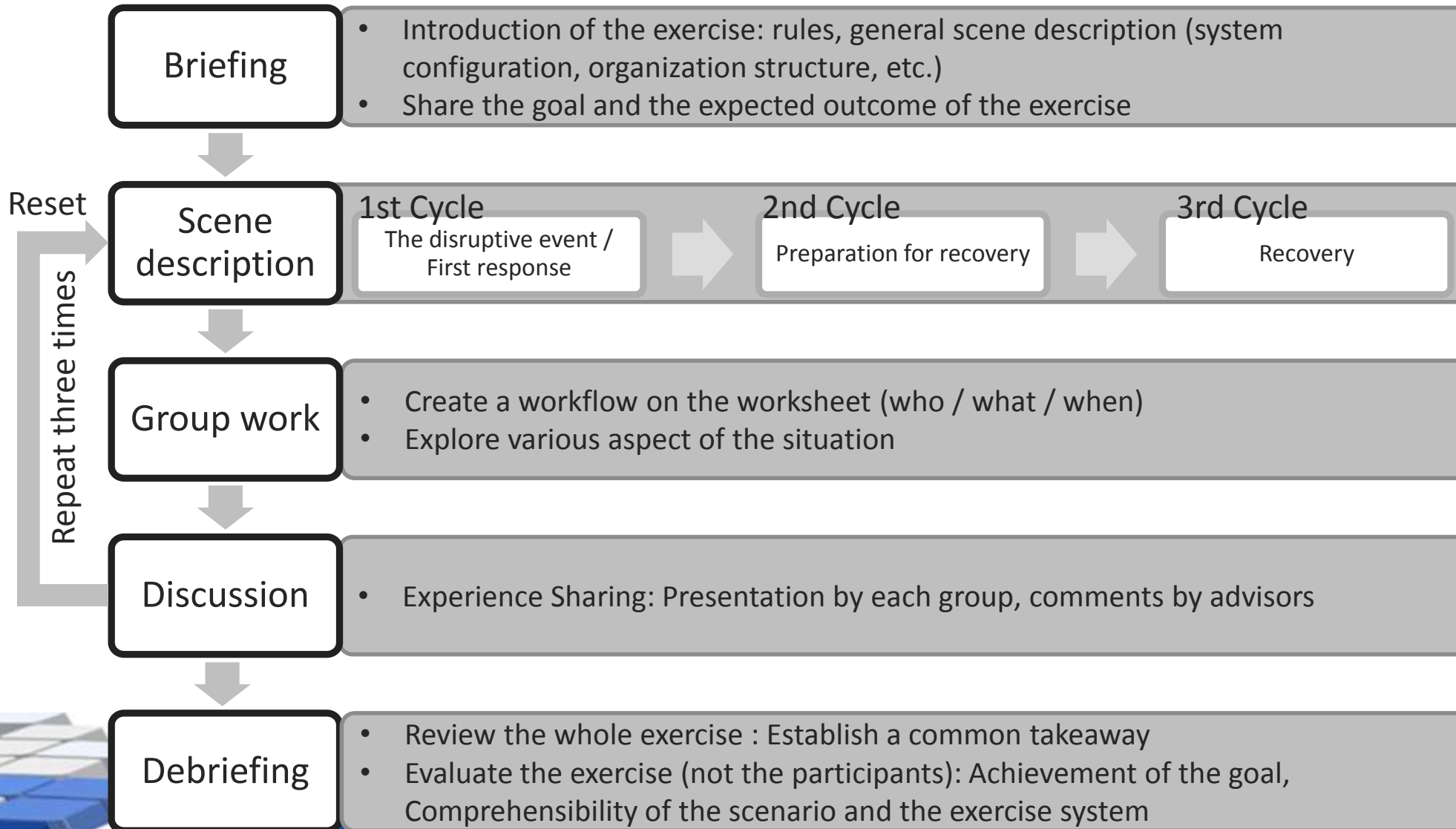
## Scenario

Cyber incident within a simplified organization structure (community heating/cooling facility)



# ICS security exercise @NIT

## Plan

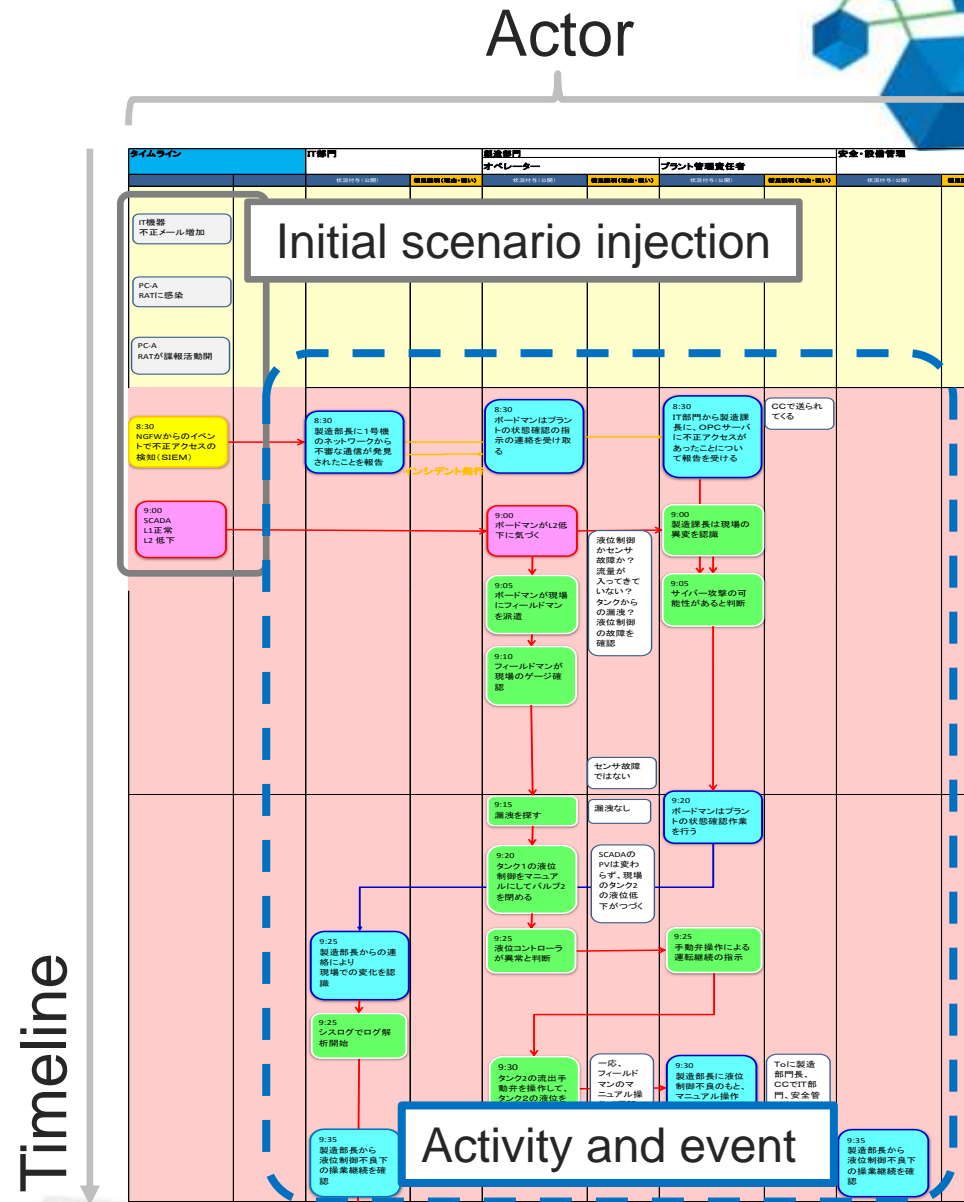




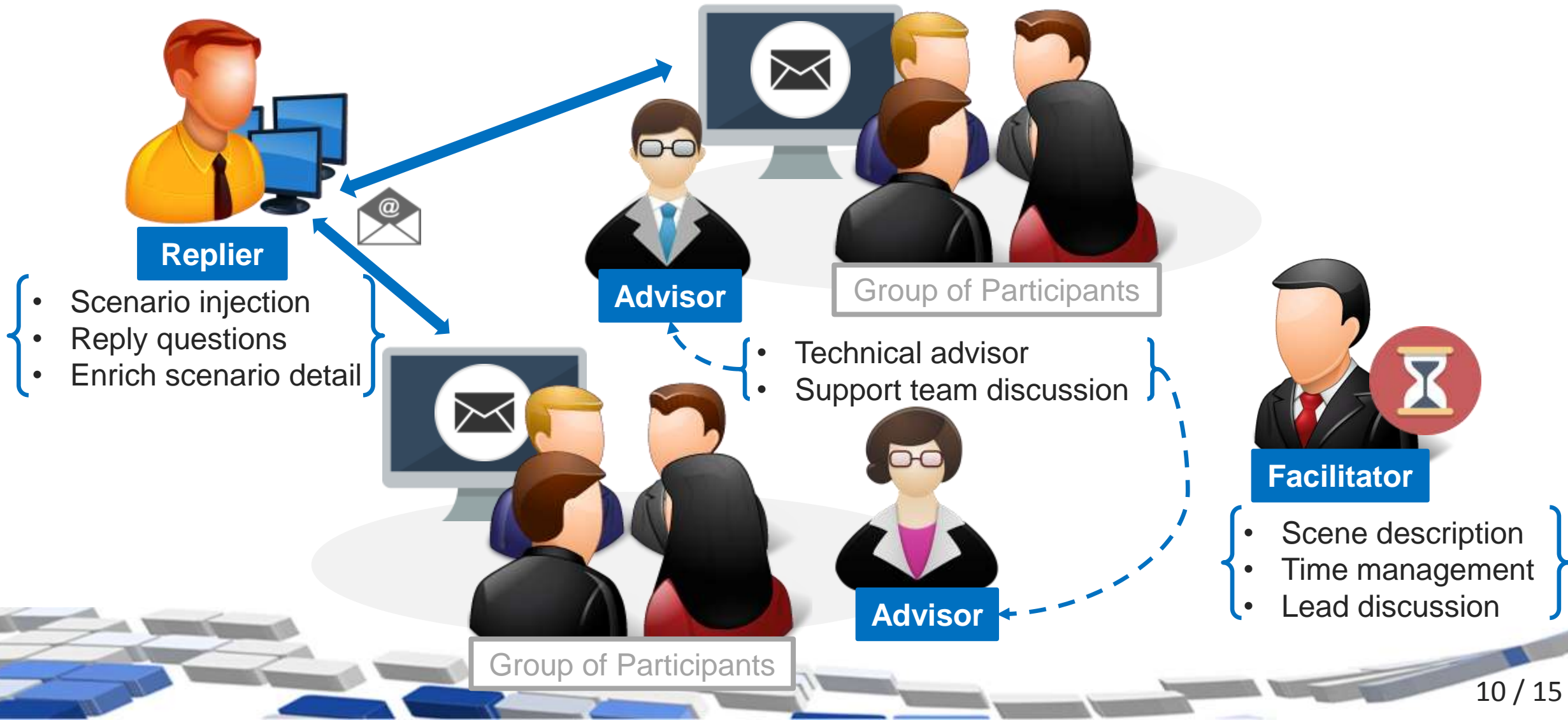
# ICS security exercise @NIT

## Group-work Output

- Create a work flow of actions
- Visualize communication structure



# ICS security exercise @NIT Administration



# ICS security exercise @NIT

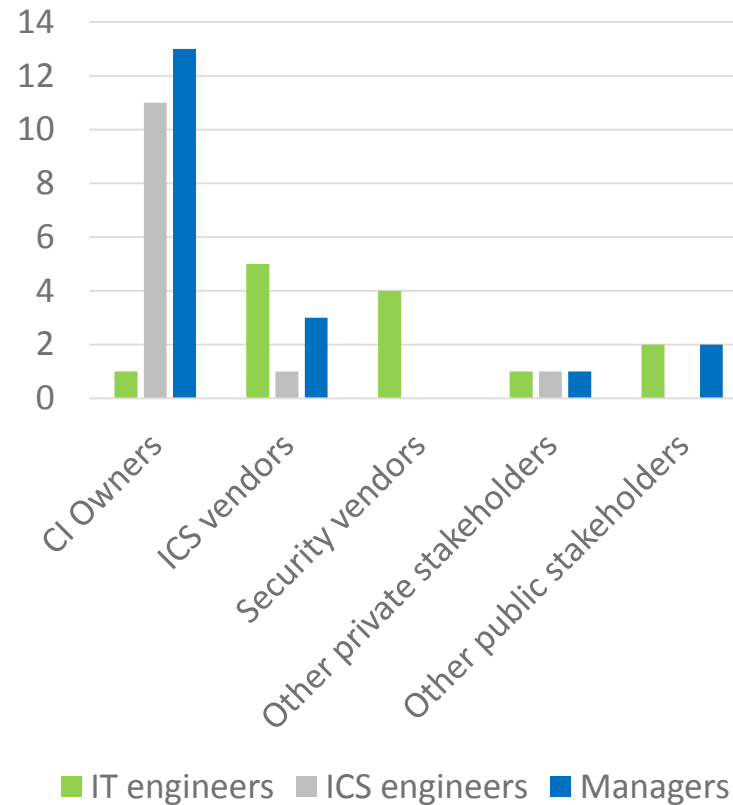
## Two pilot exercises

- August 2015
  - 45 participants
- March 2016
  - 46 participants

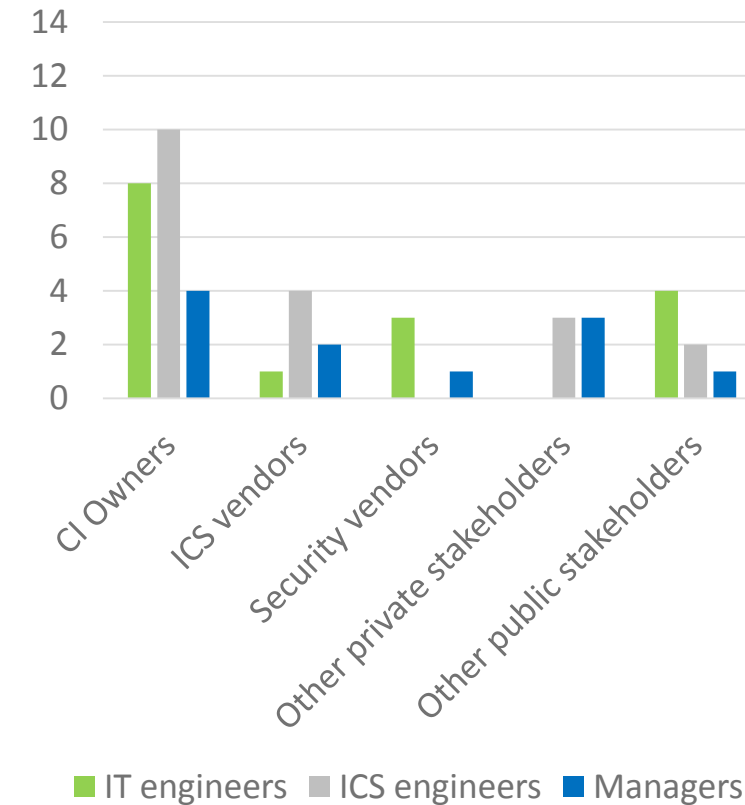
Sectors of CI owners include:

- chemical
- energy
- gas
- telecommunication

### August



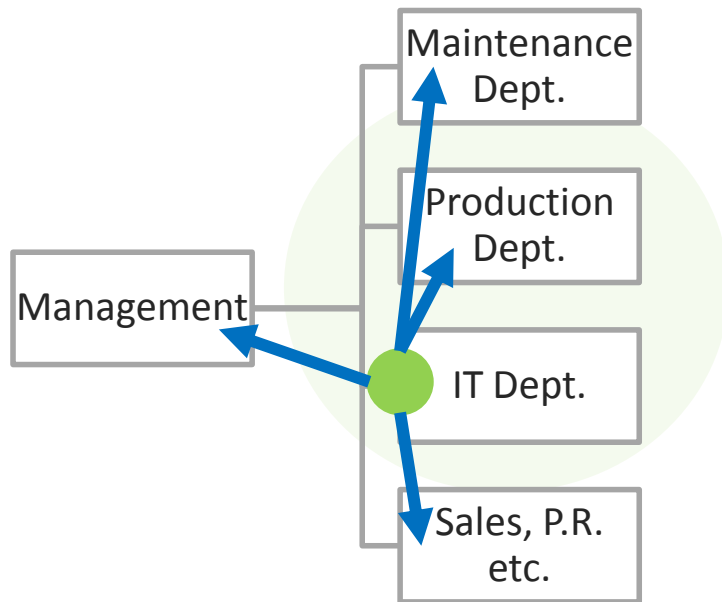
### March



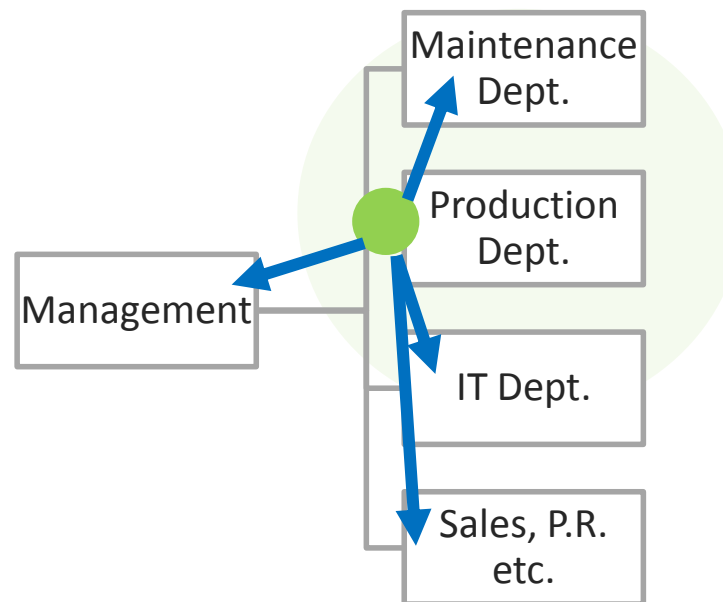
# ICS security exercise @NIT

## Variation of communication structure

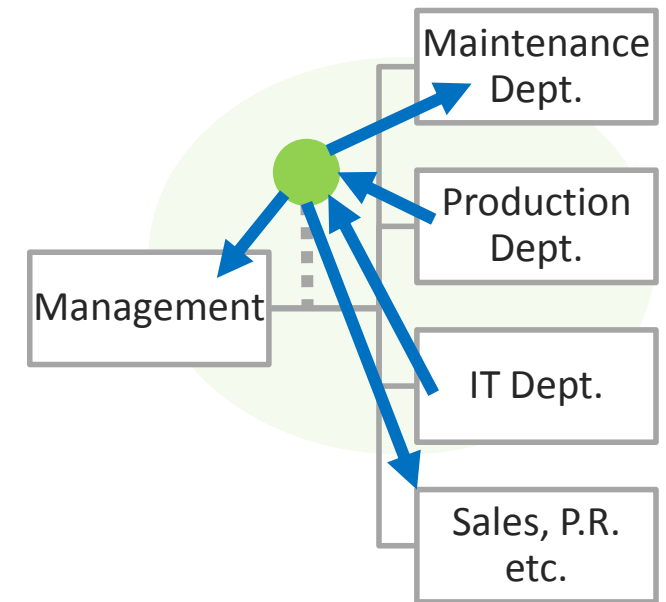
IT Dept.  
Centered



Production Dept.  
Centered



Management  
Centered



# ICS security exercise @NIT

## What we learned

- Exercise was general enough to stimulate the discussion among participants with any backgrounds
- Most organizations in the ICS field are not endowed with a tailored cyber incident procedure yet
- The exercise was appreciated as an unique networking opportunity

Future work: develop a role-playing exercise to simulate the effect of possible communication management structures