



# Welcome!!

And thanks to our sponsors:

Akamai Technologies

Liberty Mutual Insurance

General Motors Corp.



# Statistics

**264 registered from 13 countries and 5 continents**

- USA
- Brazil
- Japan
- China
- Netherlands
- Germany
- Canada
- Australia
- Iceland
- Greece
- United Kingdom
- Turkey
- Estonia



## Industries Represented

- Automotive
- Oil and Gas
- Space
- Aviation
- Defense
- Nuclear
- Healthcare and Healthcare IT
- Medical Devices
- Academia
- Insurance
- Academia (Education)
- Hydropower
- Chemicals
- Software/Computing
- Government
- Industrial Automation
- Electric Utility
- Security
- Think Tank
- Transportation
- Maritime (security)
- Environmental
- Pharmaceuticals
- Internet



# Overview of the Meeting

- Birds of a feather sessions
- Social event/poster session
- General discussion in last session



## General

- More people and industries are trying and using STAMP tools
- New application in workplace safety
- More evaluations, all show STPA and STPA-Sec better than the traditional technique(s) in the comparison. Recent examples:
  - Automotive: STPA vs. FMEA
  - Aircraft: STPA vs. FHA (Functional Hazard Analysis, ARP-4761)
  - Defense: STPA-Sec vs. traditional security approaches
  - More in the works (helicopter safety, radiation therapy, submarine protection, etc.)



# Ongoing Research Topics in PSAS

- Early modeling and analysis of conceptual designs
- Safety of UAS integration into the National Airspace
- Safety in developmental test
- Cyber security (aircraft, ATC, automobiles, etc.)
- Nuclear plant security
- Healthcare and patient safety
- Safety of interoperable system architectures
- Tool support for the analyses



## Ongoing Research Topics in PSAS (2)

- Human factors in aviation and automobiles
- Improvements in performing STPA
- Using STPA to manage design changes
- ATC upgrades (NextGen)
- Application of STAMP to workplace safety

# Paradigm Change

- Does not imply what previously done is wrong and new approach correct
- Einstein:  
“Progress in science (moving from one paradigm to another) is like climbing a mountain”



As move further up, can see farther than on lower points





# Paradigm Change (2)

New perspective does not invalidate the old one, but extends and enriches our appreciation of the valleys below



Value of new paradigm often depends on ability to accommodate successes and empirical observations made in old paradigm.

New paradigms offer a broader, rich perspective for interpreting previous answers.





# PSAS (Partnership for a Systems Approach to Safety and Security)

- Membership categories
  - Networking partners
  - Research partners
  - Strategic partners
- First strategic partner is General Motors



# Consortium Member Benefits

Benefits	Networking Partners	Research Partners	Strategic Partners
Invitations to additional focused STAMP meetings beyond the spring workshop to hear and discuss research findings	Yes (up to 2 attendees free)	Yes	Yes
Participation in the research process, including input into project selection and potential inclusion as a research or test site	No	Yes	Yes
Regular briefing materials and webinars on research	Yes	Yes	Yes
Graduate student recruiting opportunities	Yes	Yes	Yes
Research collaboration activities on company/organization-specific topics	No	Yes (limited)	Yes
Member of consortium Advisory Group to provide direction on consortium activities and research	No	No	Yes
Opportunity for in-house or MIT education on techniques and tools (5 days a year)	No	No	Yes
Free seats at special once-a-year short classes at MIT on STAMP-related topics	No	2 seats	5 seats