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

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