

# Environmental, Safety and Health Thrust

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**International Technology Roadmap for Semiconductors**

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# ESH Roadmap Challenges

- **Red/Yellow Zone Corrections**
  - Time Vs. Technology Dependence
- **Accommodate Acceleration of Technology Timing**
- **Comprehend Increasing Impacts on the Factory**























## New ESH Challenges For the Factory

The explosion in number of point-of-use abatement devices for production equipment is causing such a big impact to facilities design, especially sub-fab space, that it may now be prudent to look at the benefits/return on investment of central abatement control for the whole facility.



# Completing the 2000 Update

- **Separate Tech from ESH Driven Challenges**
- **Screen Technology Thrusts to Identify ESH Issues**
  - **Correct Tech Driven Tables**
- **Incorporate ESH Accelerated Issues (e.g.. - Lead)**



# Additional Actions

## **Provide Factory Integration Thrust:**

- Table on Energy & Water consumption**
- Identify balance for point-of-use Vs large facility systems for ESH controls**

