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# Industry and Academia Partnership on Dependability Engineering

### Some Initiatives

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Panel: R&D Dependability Challenges in **Information Society** and Opportunity for Global Collaboration

## Main Challenges and Opportunities

- Objective: To build partnerships in basic and applied research, promote technological innovation and assist in technology transfer for the social good, and foster industrial and economic development.
- Ubiquity of Dependability in IT: "MAKING IT BETTER: Expanding IT Research to Meet Society's Needs"\*

"... As more and more people, activities, and organizations come to depend on such systems, their impact, and the cost to society of their failure, grow ..." "...Society's growing reliance on IT thus demands greater attention to problems

associated with the design, deployment, and operation of large scale systems..."

- Long Term Actions Preferred -> Mutual Understanding, Synergy, and Acquaintance
- Frameworks, Supports and Initiatives Exist
  - Nation-wide: Cooperative Laboratories, Networks, etc.
  - Successive EC Programs devoted to Dependability
  - World-wide Initiatives,...

\* Committee on Information Technology Research in a Competitive World, Computer Science and Telecommunications Board, National Research Council, NAP, 2000, 272 p.

# From LIS to RIS

### Examples of Successful Industry/Academia Partnership





## WG "Open Source Software & Dependability"

- Custom-made/Proprietary solutions -> By far too expensive
- COTS-based solutions -> Real concerns with respect to certification requirements
- Investigate the Suitability of the "Open Source SW" Offer/Approach for developing Dependable Systems? (18 months)

#### **Some relevant initiatives:**

- European Working Group on "Libre Software" created by DG IS: <u>http://eu.conecta.it</u>
- Workshop organized by ESTEC: <u>ftp://ftp.estec.esa.nl/pub/ws/opensource/OpenSourceSeminar.htm</u>
- Data base reporting on Linux bugs & verification tools: <u>http://hands.stanford.edu/linux/</u>
- IST-supported projects on Open Source Software: <u>http://www.vt.ilw.agrl.ethz.ch/~hoevekam/open-world/ist-projects.html</u>

#### Membership

- Representatives from all 5 Founding Partners: Astrium, EADS Airbus, LAAS-CNRS, Technicatome, THALES
- Representatives from 7 additional organisations: CEAT, ESA/ESTEC, European Commission, INRETS, INRIA/IRISA, LSV, SNCF,...