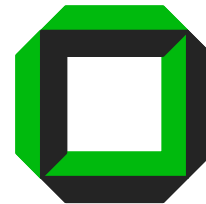

Some Promising Solutions To Stop The Show-Stopper

Frank Bellosa

System Architecture Group

University of Karlsruhe

bellosa@ira.uka.de



Policy-Free Hardware?

- Hardware policies will never cover all demands.
 - Implement policies in software
 - Efficient mechanisms to control power
 - Uniform & efficient access to energy-related information
- But, don't trust your software!
 - Need for hardware policies to prevent damage



Legacy Software Rules

■ Legacy applications & binaries

- Limited use of energy-aware compilers
- Limited use of energy-specific APIs
- Demand for energy-aware operating systems
 - Demand for ACPI like interfaces to reduce complexity

■ Legacy operating systems

- Demand for virtualization of energy & temperature

