

Motor System Efficiency

SEEM Harmonization Initiative

Conrad U. Brunner

A + B International (Sustainable Energy Advisors)

Zurich/Switzerland

Motor Market 2005 (ICA)

EFFICIENCY LEVELS*	Designations based on test method:		Minimum Energy Performance Standards <i>(estimated in-country % market share)(1)</i>	
	IEC 34-2	IEEE / CSA	MANDATORY	VOLUNTARY
PREMIUM		NEMA Premium		Australia (10%) Canada, USA (16%) China - 2010
HIGH	EFF 1	EPAct, the Level, JIS C 4212	Australia - 2006 Brazil - 2009 Canada, USA (54%) China - 2010 Mexico	Australia (32%) Brazil (15%) China (1%) EU (7%) India (2%) Japan (1%)
STANDARD	EFF 2	Standard	Australia (58%) Brazil (85%>20 after '09) China (99%) Canada, USA~30% exempt	EU (66 non-CEMEP, 85 of CEMEP agreement members) India (48%) Japan (99%)
Below Standard	EFF 3			EU (28% non-CEMEP, 8 CEMEP) India (50%)

* Normalized, taking differences in test methods and frequencies into account.

(1) Based on information shared at standards workshop and EEMODS, September 2005

1. **Start: EEMODS'05 in Heidelberg/Germany (Paolo Bertoldi EC JRC)**
2. **Preparatory Phase April 2006 New York: TAG technical groundwork (International experts)**
 - Scope
 - Testing Method
 - Level of Standards: Label, MEPS
3. **IEA Motor Industrial Motor Systems Workshop: April 2006 Paris**
4. **Public launch at EEDAL'06 in London: June 20th 2006: Stake-holder participation**
5. **Second half of 2006: Start implementation Phase (Working Groups)**
 - Technical Issues: Harmonization Issues
 - Policy Issues
 - Stakeholder Outreach & Support
6. **Progress report at EEMODS'07 (China) June 2007**

- Multi-stakeholder, international forum and knowledge network
- Areas for cooperative action
 - Efficiency testing procedures and tolerances
 - Efficiency classes and marking schemes
 - Mandatory and voluntary performance requirements
 - Policies and incentives for ee motor systems

Harmonization Issues

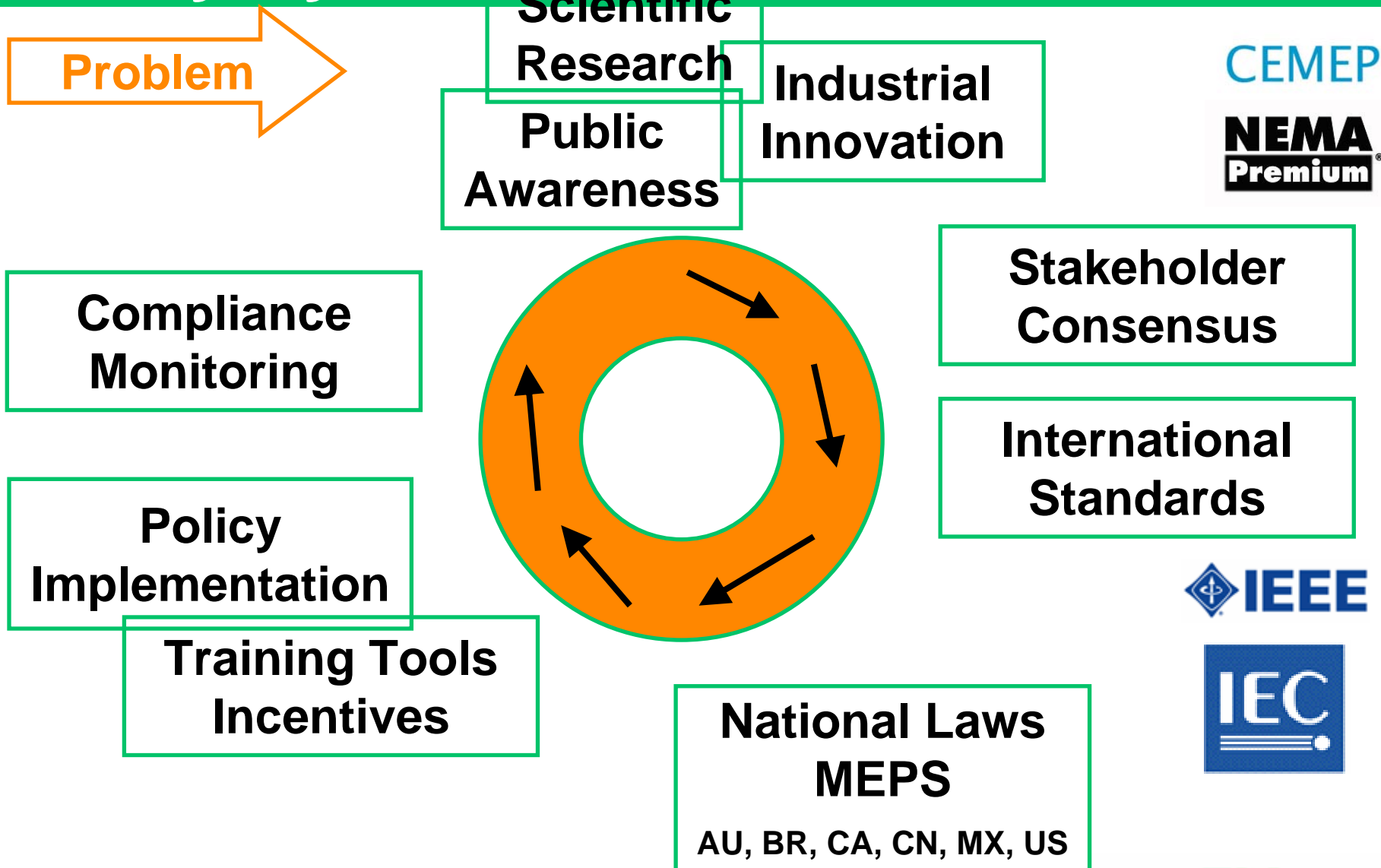
- Recommended testing standards
- Efficiency classes
- Marking schemes

Policy Issues

- Compliance regimes
- Incentive programs
- Procurement programs

Stakeholder Outreach & Support

Policy Cycle



Community of Practice: SEEEM

Participants from: Australia, Brasil, Canada, China, Denmark, Finland, India, France, Germany, Hungary, Japan, Malawi, Netherlands, New Zealand, Poland, Portugal, Romania, Russia, Slovenija, Spain, Sweden, Switzerland, South Africa, South Korea, UK, USA



Australian Government
Department of the Environment and Heritage
Australian Greenhouse Office



AUSTRIAN ENERGY AGENCY



ITFSP London 19.6.06

