

# *The Past, Present and Future of TRL's in ARIES*



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*ARIES Project Meeting*  
*21-22 January 2009*

# The History of TRL's in ARIES



Jun 07	TWG's created, tasked to define R&D status & needs, plans & options Advisory committee meeting held
Sep 07	Idea of using TRL's floated
Dec 07	Adopt TRL's, define issues, begin to create & describe TRL's Approach defined, based on utility requirements
Mar 08	Draft of TRL tables produced, report outline created OFES briefing
Jun 08	Reference concepts defined, first evaluation performed Draft report completed.
Sep 08	Widespread dissemination of results: <i>TOFE (incl. journal article), FPA, ANS news, IHHFC,</i>
Dec 08	Final version of interim report released  FESAC presentation, ReNeW effort, future plans

# The FESAC meeting was an opportunity to continue promoting the use of TRL's

- **The community is generally supportive**
  - Strong support from “Technologists” (e.g., McCarthy, Sheffield)
  - Growing support from “Physicists” (e.g., Hubbard, Hill)
  - Mixed signals from OFES
- **We have been winning converts *one at a time***
- **See <http://aries.ucsd.edu/LIB/TALK/MST/FESAC09.pdf>**

# We are making inroads into ReNeW

- **Executive leadership is generally supportive:**
  - **Hazeltine:** has been telling theme leaders to decide for themselves which tools to use
  - **Hill:** interested if someone does the work (*i.e.*, Turnbull, Meade)
  - **Neilson:** expressed interest at TOFE and requested briefing
  - **Opdenaker:** has always been fully supportive
- **The groundrule to use Greenwald issues (which has been violated already at the highest level) makes it difficult to apply TRL's universally**
- **Individuals in ReNeW are receptive to using TRL's**
  - In some cases, theme leaders have indicated that they would appreciate if someone else would do the work:  
*this is an opportunity for ARIES contributions*

# Several opportunities exist for ARIES to further contribute to program planning

- **Provide inputs to ReNeW groups**
  - Harnessing fusion power (Meier and Raffray)
  - Taming the plasma interface (Ulrickson, Maingi)
  - High performance steady state plasma (Hubbard, Greenfield)
- **Expand on our pathway analysis**
  - Improvements to existing materials
  - Evaluation of facilities and scenarios (take it the next step)
- **Prepare to evaluate “initiatives” (facility proposals)**
- **Move beyond TRL’s into more comprehensive planning**