

Recognizing the Competing Values in Science and Technology Organizations: Implications for Evaluation

**Presented at the US/EU Workshop on
Learning from Science and Technology Policy Evaluation**

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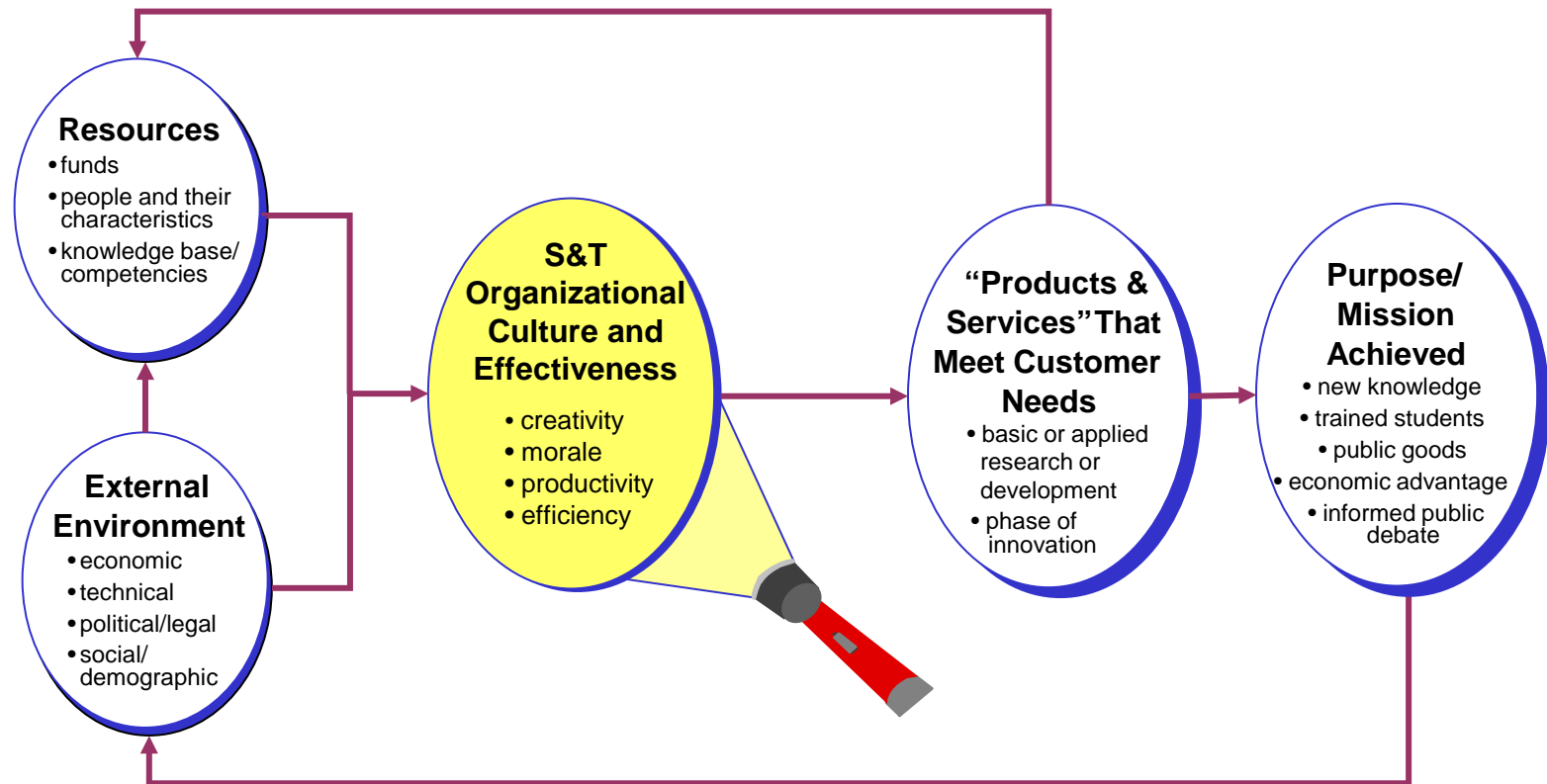
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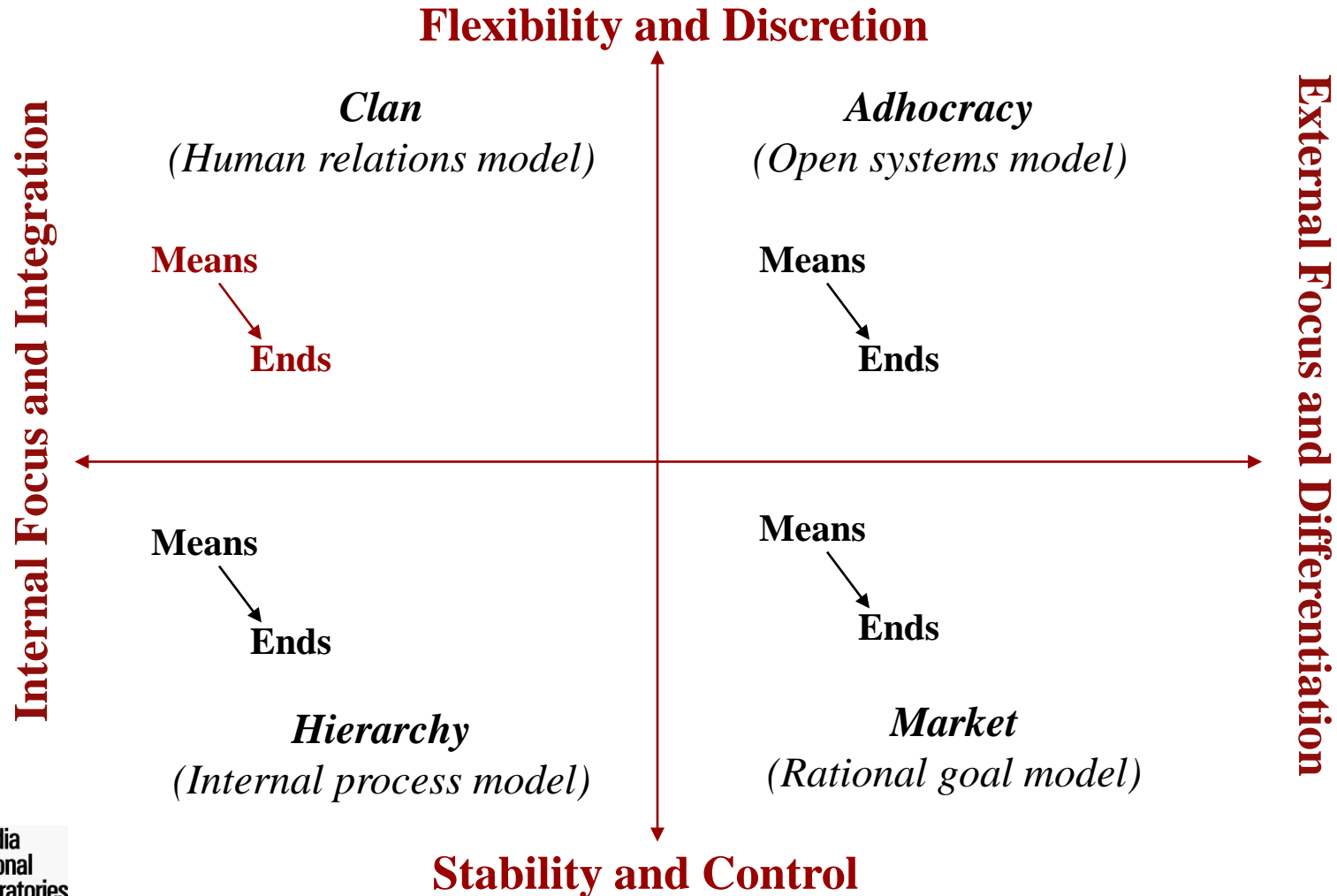
Investigating new ways to assess the effectiveness of Science and Technology (S&T) organizations

- A Sandia National Laboratories project sponsored by the U.S. Department of Energy (DOE)
- Purpose is to understand how to assess and improve the environment in which research occurs
- Approach is to assess an organization's research culture and effectiveness, given its resources and external influences
- Requires exploring differences in research environments and determining “best practice”

A proposed framework that recognizes competing perspectives of effectiveness and differences in circumstances



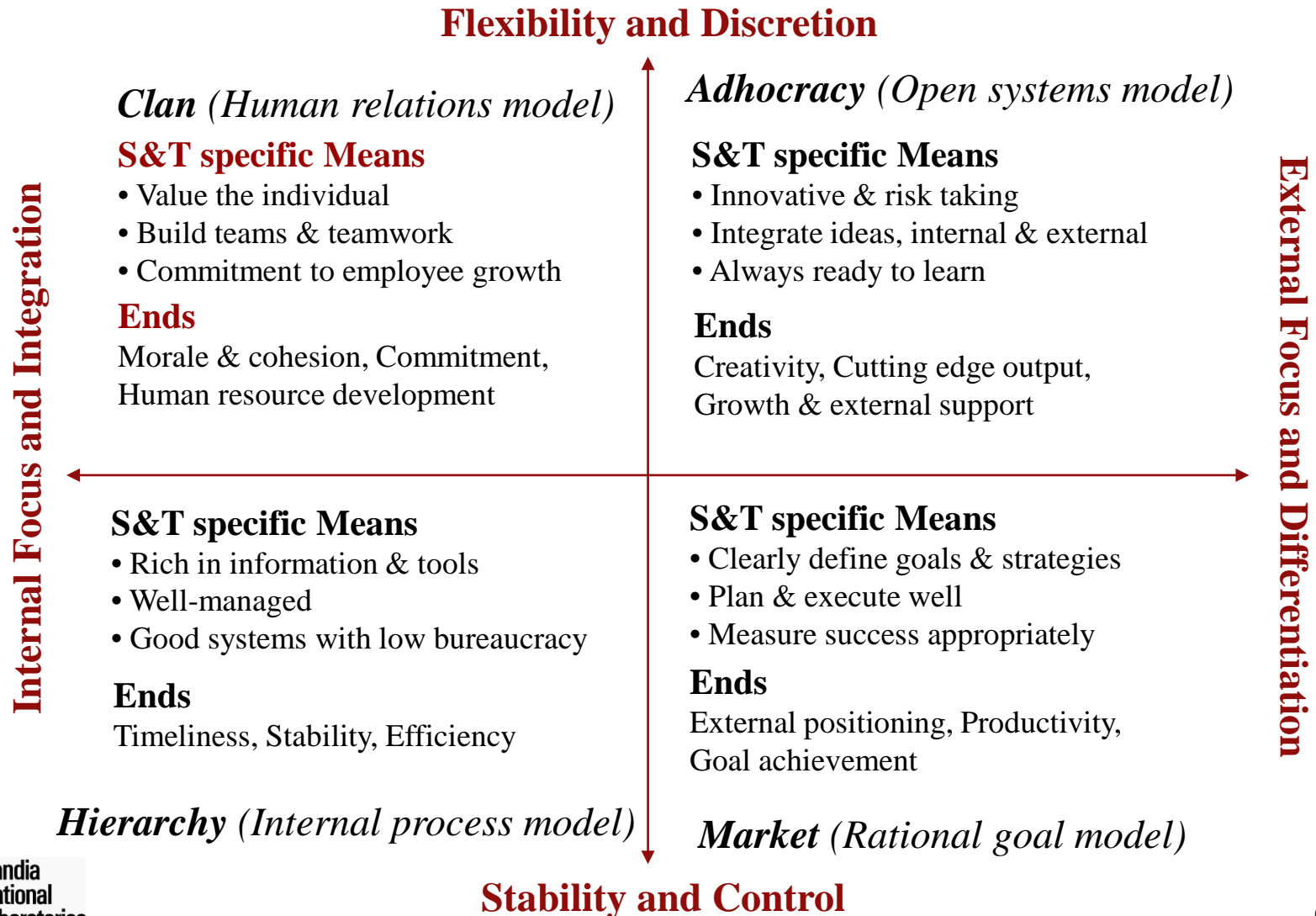
The Competing Values theory of Rohrbaugh, Cameron and Quinn -- three dimensions and four models



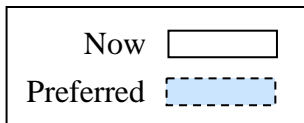
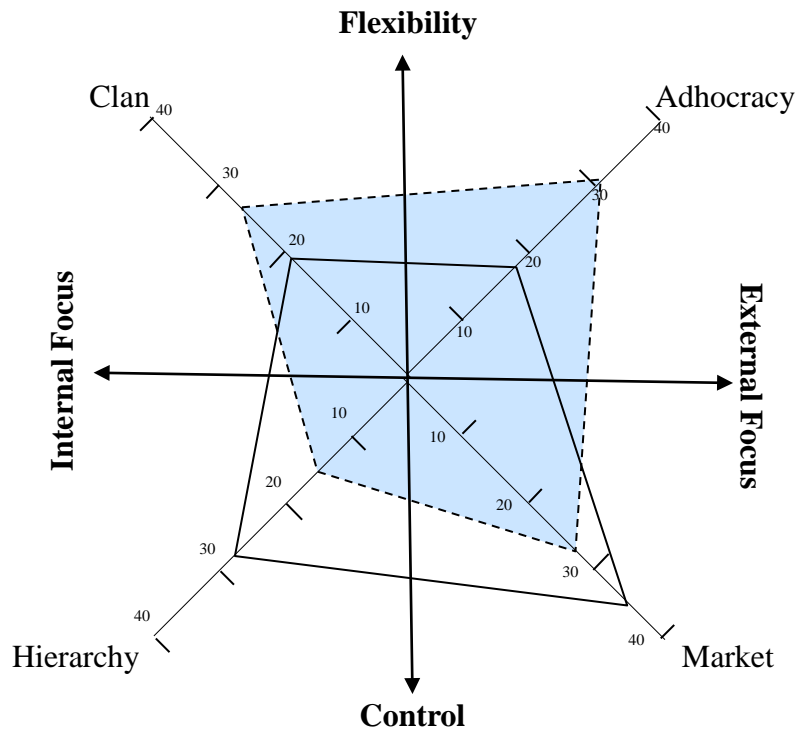
Arguments for using the Competing Values theory

- Given complexity, a theoretical foundation can narrow and focus search for key issues
- Integrates and organizes most dimensions stakeholders value
- Helps define desired organizational changes
- High congruence with the way people process information
- Based on empirical evidence
- Captures the reality being described (valid)

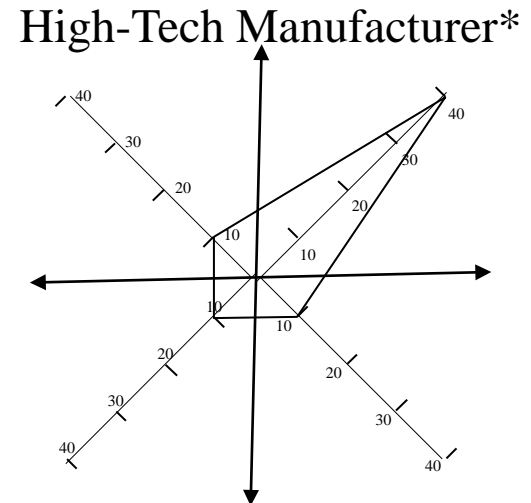
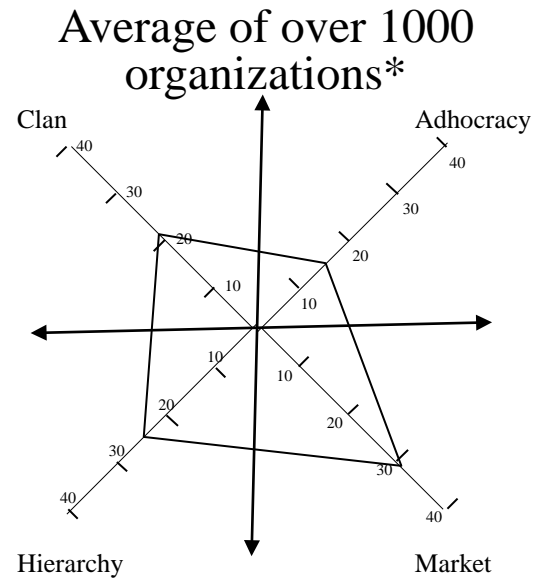
DOE study has defined competing values for S&T organizations



Examples of Cameron and Quinn's Assessment Instrument



*Source: Cameron and Quinn, 1999



Implications for evaluation

- Comprehensive description of the organization and its values improves evaluation planning and utilization
- Suggests a set of leading indicators that balance competing values
- Could help studies clarify differences in organizational culture depending on S&T type, purpose, and circumstance
- Suggests additional questions for existing data collection efforts, and possible standardization to allow comparisons

Recognizing the competing values of S&T organizations appears to be a fruitful line of inquiry, deserving of further research

