

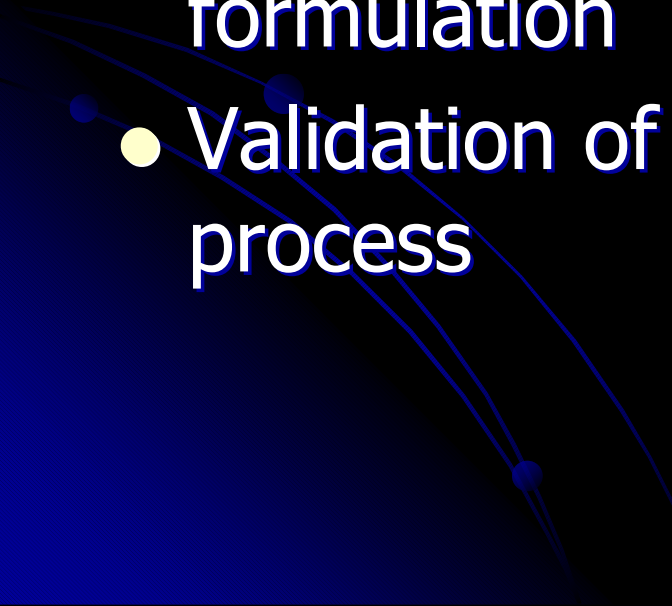
**Extreme Environments -
Development of Decision
Processes and Training
Programs
for Medical Policy Formulation**

November 7, 2003

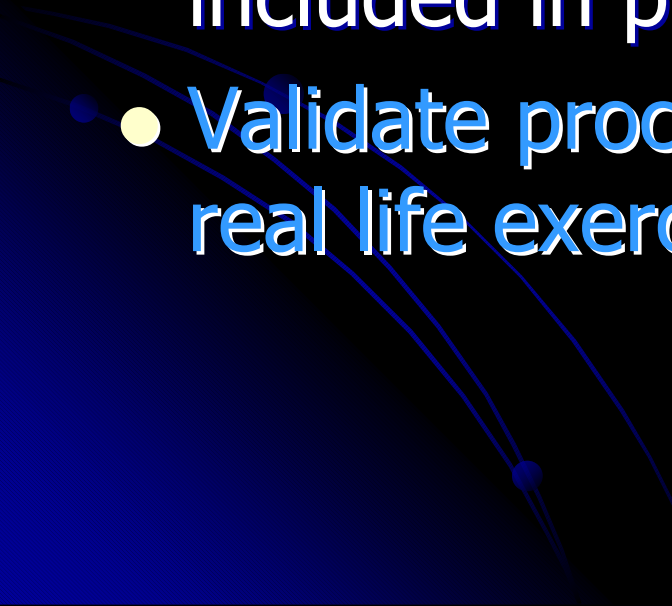
GMU Research Team

Presented by Arnauld Nicogossian, MD

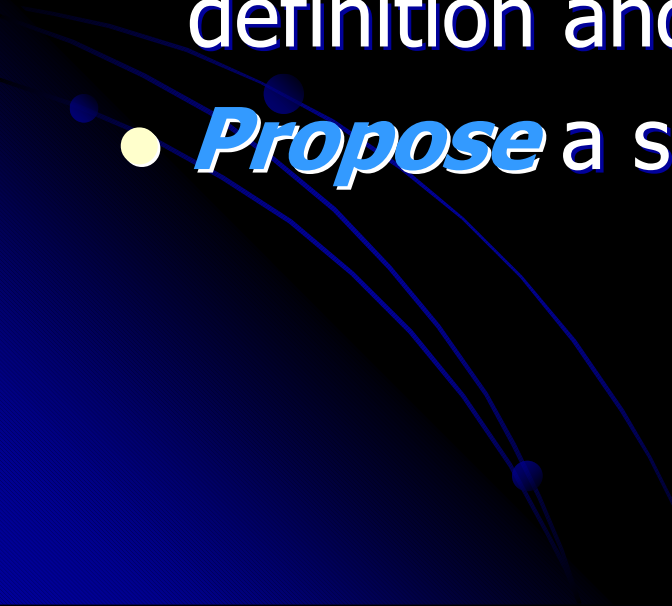
Workshop Focus

- Build on the first Workshop
 - Expand understanding of Model (s)
 - Evaluation and selection of effective tools and processes for medical policy formulation
 - Validation of a selected decision making process
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Workshop Goals

- Presentation and consensus on analytical/predictive models models and tools
 - Validation of the parameters to be included in processes
 - Validate process through simulated and/or real life exercises
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Workshop Goals

- ***Evaluate*** best practices
 - ***Establish*** a standard process for policy formulation
 - ***Develop*** a standard approach to risk definition and communication
 - ***Propose*** a set of training tools
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GMU Research Conclusions

1. No consistent approaches for formulating policies for exploration, travel, or work in extreme environments *and*
 2. Decision-makers need to be educated to understand the importance of:
 - A. **HEALTH** in the context of the human dimension
 - B. **UNDERSTAND** short and long term Health and Safety Impacts in the process of preparing an expedition and/or inserting novel technology
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US Regulations*, Policies & Laws

Environment	Executive Order		Public Law		Regulation		Dept. Order		Recommendation	
	H	S	H	S	H	S	H	S	H	S
Aviation					+	+			+	+
Mining			+	+	+	+			+	+
Space		+			+	+			+	+
Polar	+	+			+	+			+	+
Wilderness F & R	+	+			+	+	+			
Wilderness Tourism							+		+	+
Offshore Drilling					+				+	+
Offshore Exploration									+	+
Radiation			+	+	+	+				

Legend H = Health S = Safety

*OSHA as applicable

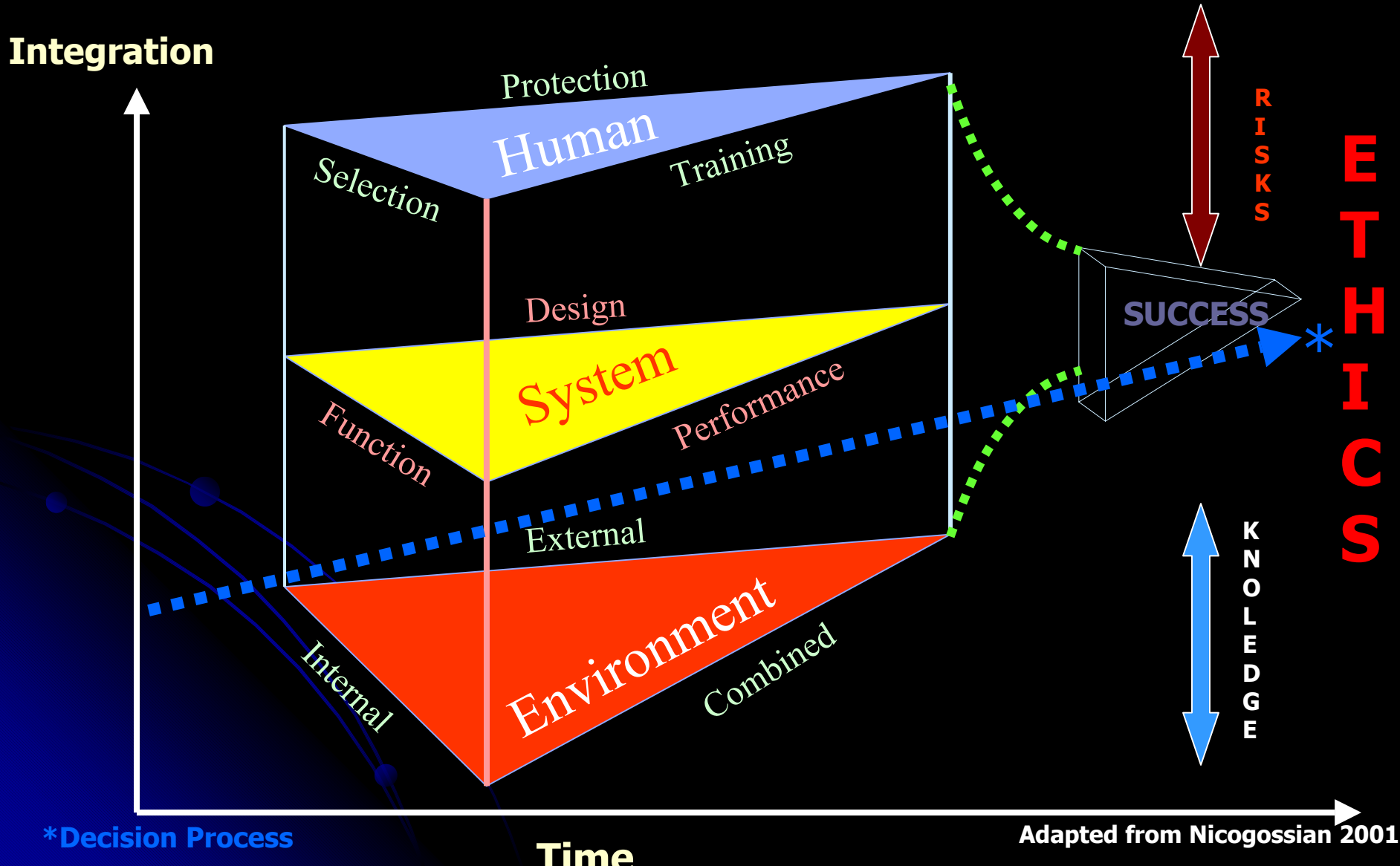
Policy Process Essentials

- Systematic, documented, and auditable
- Uniformity of terms and process improves communications reduces omissions/errors
- Evidence-based
- Quantified and qualitative data
- Careful consideration in communicating risks and solutions
- Sensitivity to and awareness of the **context** and to **stakeholders**

Scope of Medical Policy Formulation

- Safety of the individual, and
- Health of the individual
- Productivity of the individual in achieving mission success
- *Effectiveness* and / or *liability* of the enabling and protective systems

A Model for Expedition Policy Formulation Process



Human Element Interdependency with Environment (s) and Systems

