

Human Readiness Levels: Linking S&T to Acquisition...

...and beyond



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optimizing the human dimension

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Human Systems

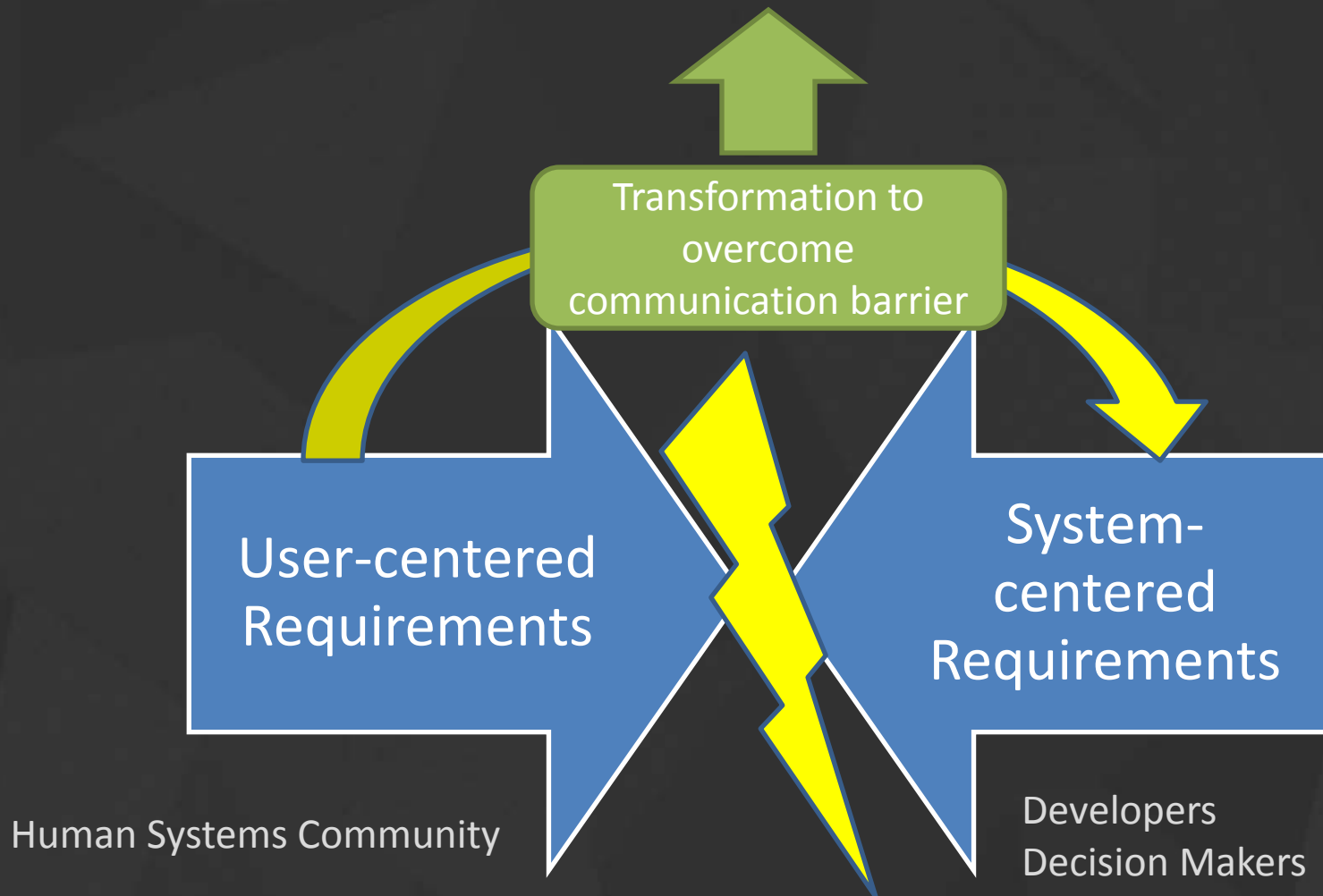
Operational Capability Scope

- Acquire
- Train
- Equip
- Enhance
- Protect

How do we ensure that complex systems developed today are ready and optimized for human interaction?

Mason et al., 2013

Human Readiness Levels



Human Readiness Levels

- NDIA HSC and DoD HFE TAG have driven awareness and progress in quantifying human readiness
- Support transfer from R&D to system acquisition and deployment



Human Readiness...

of **Systems**: designed, developed, deployed

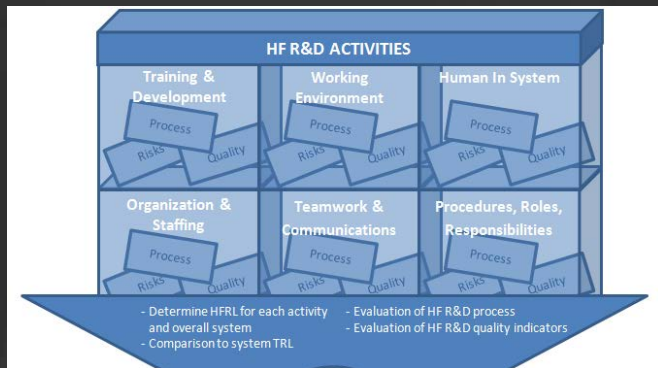
- Tool at the ‘human factors practitioner’ level that can be shared with decision makers
 - Minimize HS/HF related risks to project schedule and costs
 - Measure R&D outcomes
- Support enforcement of HSI standards through development and validation of HF anchors to measure and model maturity
- Decision makers can use anchors to assess and track HSI maturity in the acquisition, project management, or implementation phases



One approach to Quantifying Human Readiness of Systems

Input of Human Factors Evaluation Data, emphasis on Issues

- Conditions under which the issue was identified
- Related human factors anchors (FAA)
- Risk level of the issue
- Progress made toward resolving the issue



One approach to Quantifying Human Readiness of Systems

Analyze Human Factors Issues

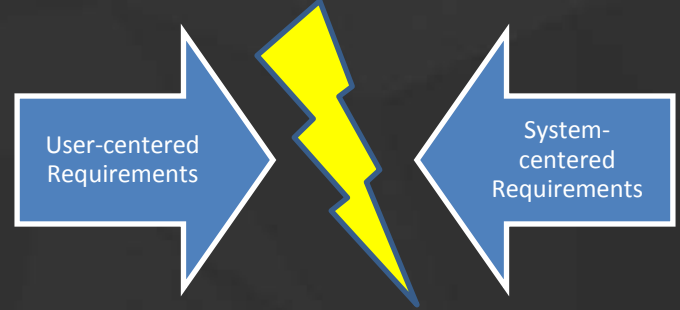
- Calculate human factors readiness level based on 2 components:
 - Number of HF issues, prioritized by risk severity and probability
 - Degree issue has been addressed – solution conceptualized, implemented, validated?

Track and Predict

- Track each identified issue and its associated resolution recommendations over time (i.e., across multiple evaluations)
- Predict impact of adopting a recommendation on the system HFRL



Challenges remain



- Relationship between practitioner tool at detailed level to high level decision maker summary brief
 - Communication language and understanding
- Merger of strategic HRL and detailed approaches to quantify
- Baseline metrics/methods to set ‘thresholds’ for level achievement
 - Completing process is not enough –outcome of the process must be considered and tracked



Beyond System Evaluation...

Human Readiness...

of training solutions

- Training Effectiveness Readiness Levels
 - How effective is the training system?
 - What parameters make it most effective?
 - Need for objective, consistent scale to compare across systems
- Again, not tracking process of evaluation, but *outcome* – has training demonstrated **XX** in training effectiveness

Baseline measurement
needed!!!
What is threshold??



Human Readiness...

Personnel



*What are metrics?
What are baselines?
Thresholds?*

