

# Comments on 'Resilience Scaling Technologies – Usability': presented by Philippe Palanque

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## General Comments

- Good connection between the themes: evolvability, assessability, usability, and diversity. Appropriate choice of themes except:
- 'Usability', is it too focused on the individual (driver is 'ubiquity/mobility' rather than 'pervasive')? Is there another higher level 'cross cutting theme'? Does the emphasis on usability detract from consideration of organisational policies, procedures, culture etc?
- No work on 'people related requirements' in relation to resilience. Particularly important in terms of contracting for 'services' rather than 'equipment' (If it isn't in the requirements then it is not likely to be considered'). There are also a significant issues associated with acceptance in relation to human factors requirements which will also impact on any people related resilience issues

# Cluster 1: Development Process

- Modelling of human behaviour – beyond individuals and modelling of socio-technical systems. Modelling of ICT in organisations (c.f. GE13 Managing multiple and diverse models).
- Standardisation: multiple standards to ‘influence’ particularly system level standards such as ISO 13407 (Human Centred Design Processes for Interactive Systems) and ISO PAS 18152 (A Specification for the Process Assessment of Human System Issues – Life Cycle Issues). Integration of resilience alongside usability will be a challenge. Continuous assessment throughout design is important – links to accessibility.
- Work to examine translation of HF task data into UML class diagrams and hence interface specifications being conducted by the Human Factors Integration Defence Technology in the UK ([www.hfidtc.com](http://www.hfidtc.com))
- Other exploitation paths – avoidance of ‘shelfware’. Is there a plan to achieve this? Website – design heuristics, best practice document\*, distillation of knowledge generated.

# Cluster 2: Contextual Usability

- Focus on ‘user goals’ to understand user behaviour in different contexts. Getting the ‘right information at the right time’ to the user. What is ‘enough information’?
- Consideration of other analytical methods that are less context specific e.g. Cognitive Work Analysis. Designers can’t foresee all possible system states – therefore focus on constraints which influence the operation of the system.
- Plasticity of user interfaces may pose difficulties in the military domain
- Discovery/demonstration of emergent properties by modelling potentially exciting developments.

## Cluster 3: Beyond Standard Usability

- Does user preference = performance? Evidence from work on Dynamic Function Allocation suggests this may not be true.
- How are we going to measure UX? Potential for highly innovative cross-disciplinary work here on extending 'traditional' usability metrics, tools and techniques.
- Privacy a key issue of significant importance and therefore good to see this being addressed. User's perception of 'risk' would be an interesting avenue of investigation to pursue in relation to this topic.