## Ontology Summit 2012 Track 1&2: Ontology for Big Systems & Systems Engineering

Co-champions Matthew West Henson Graves

## Track 1&2: Ontology for Big Systems & **Systems Engineering**

This "Ontology for Big Systems & Systems Engineering" Track aims to bring key challenges to light with large-scale systems and systems of systems for ontology and identify where solutions exist, where the problems require significant research, and where we can work towards solutions as part of this summit. The areas to be considered include:

<sup>></sup> working with and integrating the results of models using multiple modeling languages

- <sup>></sup> the systems lifecycle and the issues of sharing data within and between lifecycle stages
- > the difference between requirements and the delivered system
- > systems of systems vs systems
- > the nature of system components and the difference between these and the parts installed
- > the connections between system components and what they carry
- <sup>></sup> the specific role of social, legal, and value-related aspects in systems architecture, modeling and design

> systems behaviour

- <sup>></sup> federated systems both as a big system, and as a solution to some of the challenges
- > principles of how to construct good quality reusable models (ontologies)
- <sup>></sup> the management of ontologies of and for large systems and the challenges in developing and maintaining them 2

## The Systems and Systems Engineering Problem Space

In this session we want to look at the problems in big systems and systems engineering where ontology has a role to play. The aim is to uncover the various areas where challenges exist that the world of ontology can contribute to, which we will delve into in the next panel session.

## **Tonight's Panellists**

- · Jack Ring
- · Anatoly Levenchuck
- · Giancarlo Guizzardi
- · Matthew West