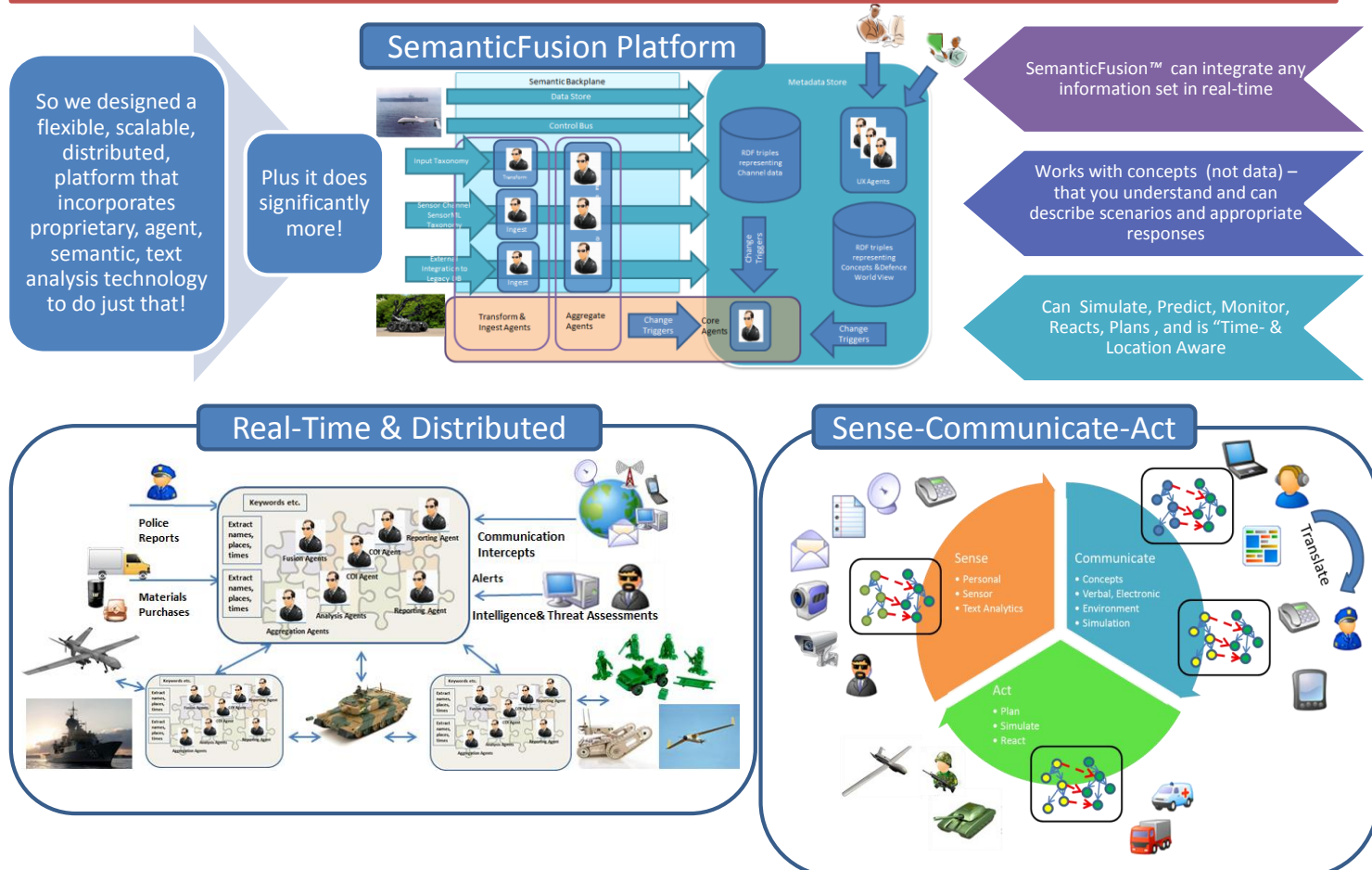


"Waypoints" and "simple actions"  
not getting the "Task" done?

Need to reason and react in real-  
time, & manage complex multi-  
AUV interactions?

Move to the "Next Level" of AUV Management &  
Sensor Integration on the SemanticFusion platform!

*"...The SemanticFusion concept is based upon the idea that improved situational awareness requires improved high-level conceptual representations and reasoning capabilities. It approaches data fusion from an agent, ontology & concept-modelling perspective, rather than a traditional data-analysis approach..."*



**Need to integrate multiple sensors?**

- Supports multi-level fusion
- Extracts & reasons about concepts not data

**Coordinating Multiple AUV's?**

- Agents manage "smart & dumb" AUV plans
- Coordinating Agents manage overall plans

**Is Dynamic Mission Planning required?**

- Adapt plans to achieve secondary objectives
- Replan "on-the-fly" as conditions change

**Demonstrations include:**

- Semantic Agent management of Multiple UAV Search
- Multiple UAV – UGV Scout/Retrieval/Replenishment
- Integrated C&C, Soldier, UAV Situational Awareness



**Model and Reason at a Concept level**

- Model AUV worlds as meaningful concepts
- Transfer Concepts over data

**Integrate External Knowledge Sources**

- Enhance AUV's using external Sensors/Info
- Integrate Alarms, Timetables, Awareness

**Create Mission Specific Models & Task Languages**

- Represent the World your AUV understands
- Create Domain specific "Task" Languages

**Autonomous Capabilities/Planners under development**

- Hierarchical, Delegated, Embedded & Time-constrained Planners
- Ability to interpret and reason about location, proximity, time & certainty
- Constraint-Based Search reduction

**Interested in our SemanticFusion Technology?**

Call us to find out more or contact us via our website [www.semantrix.com.au](http://www.semantrix.com.au)