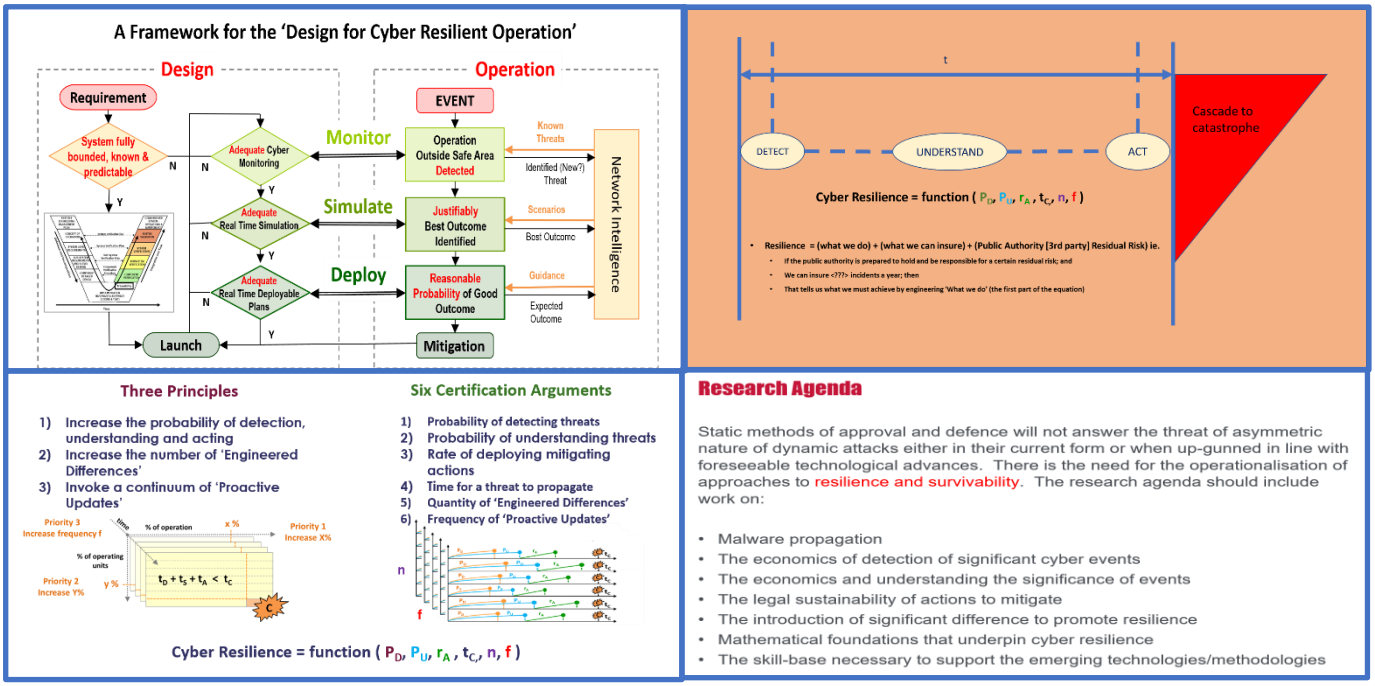
Moving of RoboPilot Simulation to Real Time



Contract to be let with UoB for Kerstin Elder / Greg Chance

- Are we able to use Braking the Brakes as example?
- Static is an analysis where time is not a major factor in the calculation ie. 'take as long as you want to analyse' as in standard V model
- Real time means that it must be possible to Detect, Understand and Act on a cyber event before it has significant (negative) effects (cascade to catastrophe)

The work done under RoboPilot (and elsewhere) has demonstrated that it is possible to use AI to find ways to complete simulations that have 'gaps' in them and derive significant conclusions. This work has also show the issues associated with the combinatorial explosion when the 'physics kicks in'.

Given the Cyber Attacks are outside the model then:

- Characteristics of AI enhanced Model Driven Simulation
- Moving this to CyRes where would it fit
- Characteristics of Simulation in real time
- How would this fit with forensics (working with CFMS and UoSW)
- Legal and technological impediments, requirements for V&V
- Services / tools and economic feasibility; it is likely that this would include the ability to make conclusions without needing supercomputers where combinatorial explosions are not involved.