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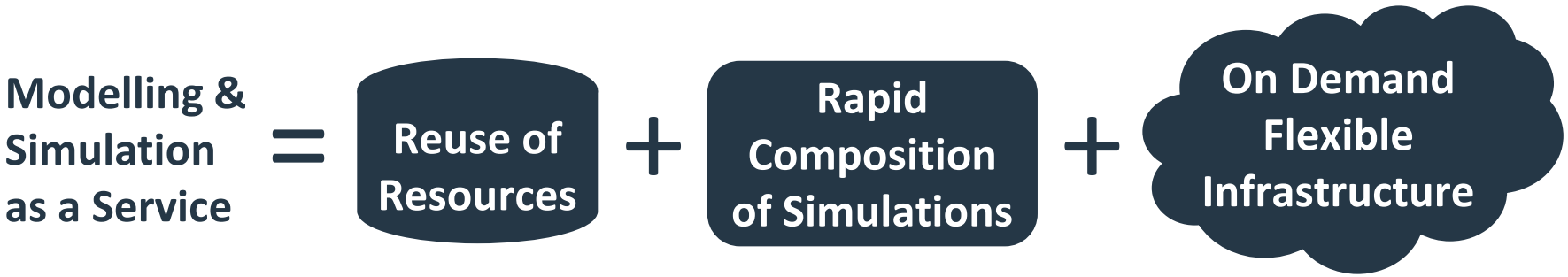
Crisis – What Crisis?

The potential for MSaaS techniques and tools to support Crisis Management Exercises

Ben Doyle / Keith Ford

Introduction



- MSaaS is a work in progress
- The scope and terminology is still evolving

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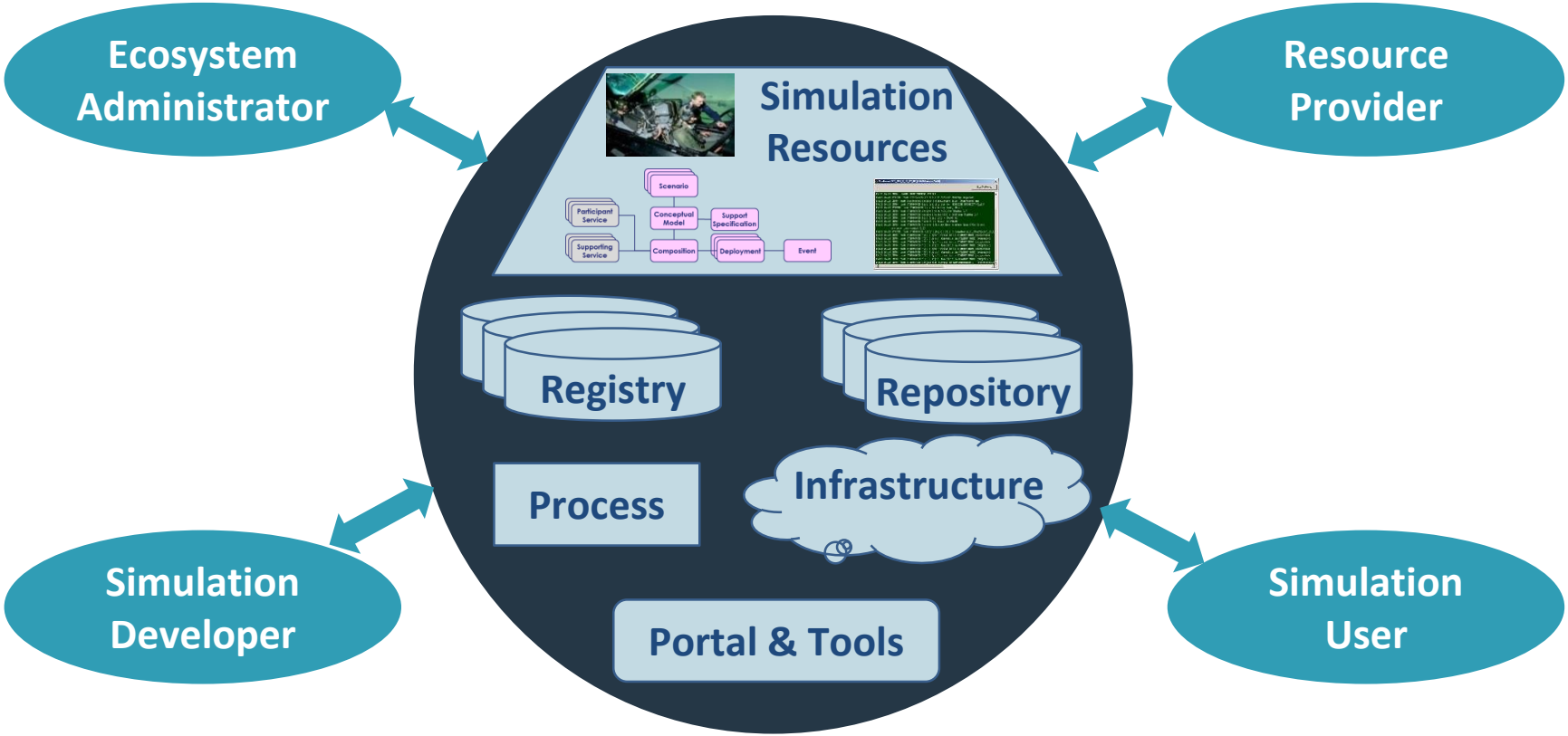
MSaaS Ecosystem



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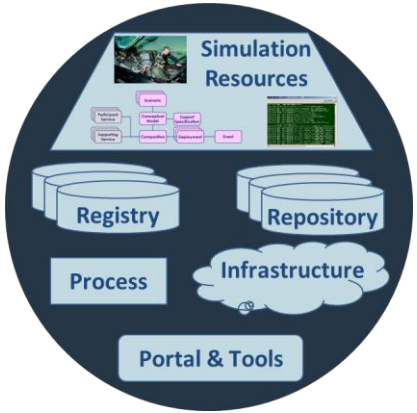
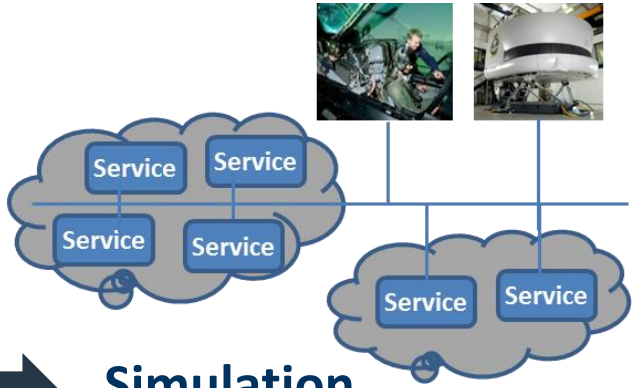
MSaaS Vision

202?





Simulation

20??

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MSaaS – Military Application

MSaaS development is being driven by Military needs

- Training
- Mission Rehearsal
- Concept Development & Experimentation

Key benefits

- Agility – deliver whenever/wherever needed + adapt to changing needs
- Re-use resources
- Reduce technical skills required to deploy simulation environments
- Enable multiple simultaneous simulations + efficient resource use
- Cost reduction
- New business models

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Wider application of MSaaS

How can MSaaS techniques and tools benefit Crisis Management Training?

Crisis: An unplanned event or occurrence that leads to confusion / inaction and the consequences give rise to the requirement for CM

Your crisis is my normality

A crisis is only a crisis until it is resolved

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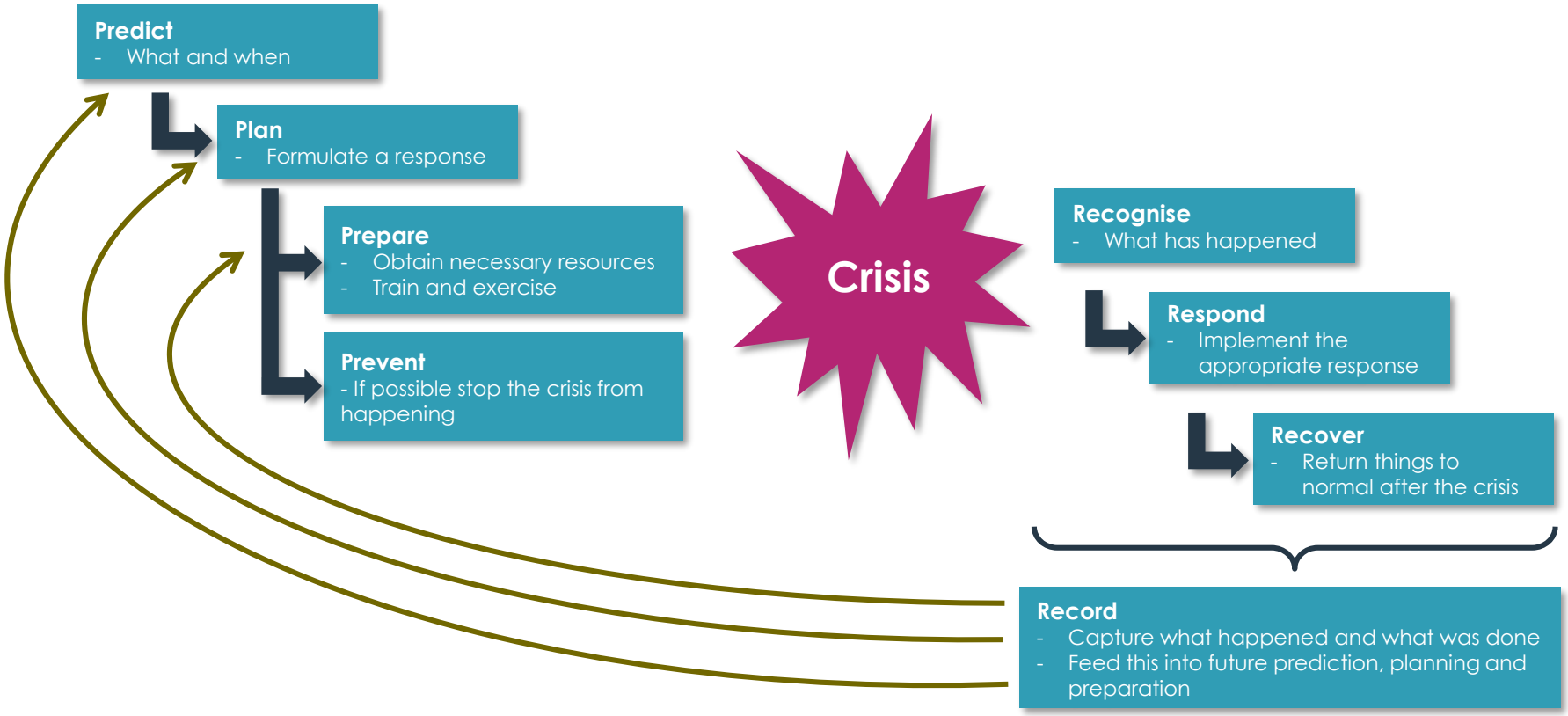
Crisis Management Activities



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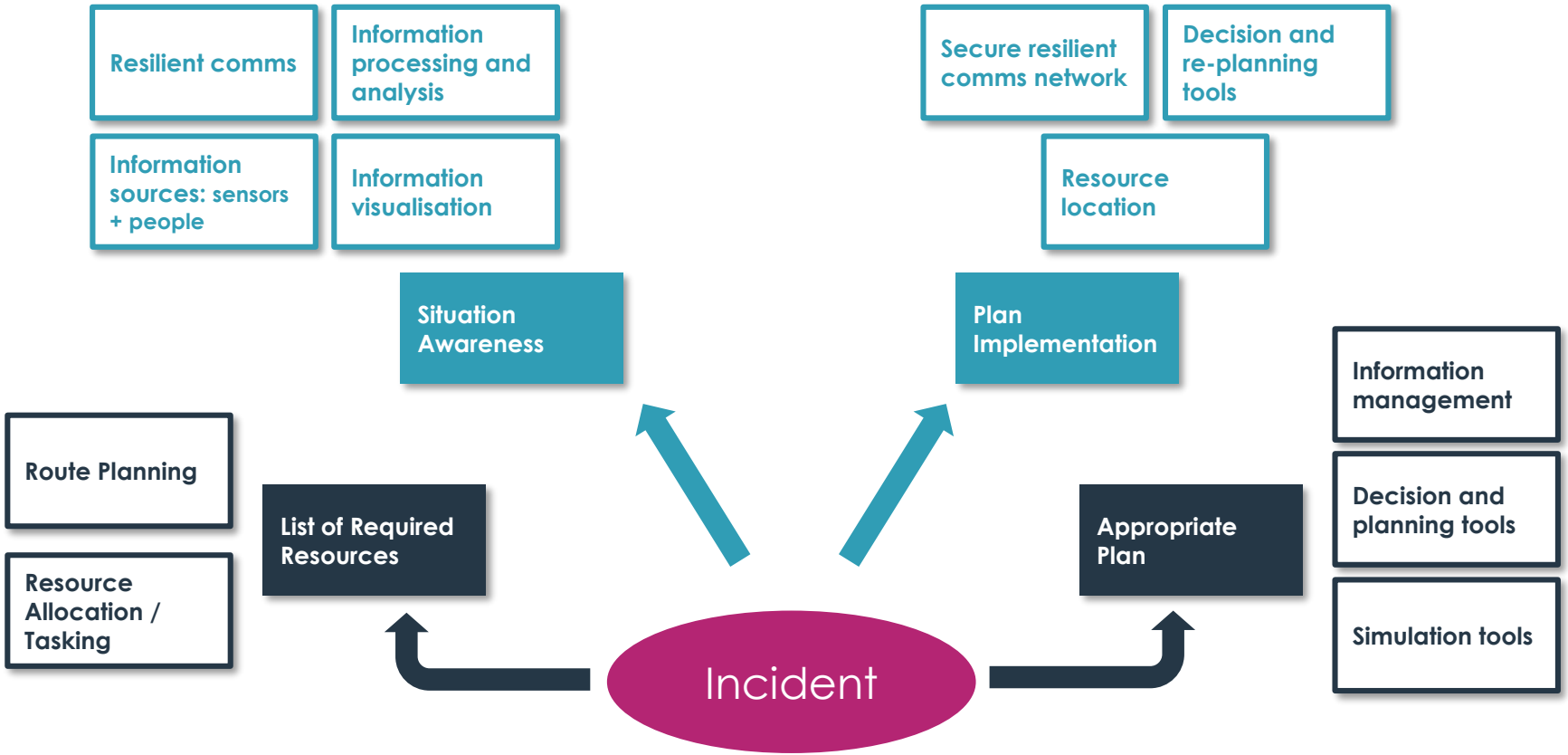
Application of technologies



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Crisis Management Training

Training Exercises (UK approach)

- Discussion based exercise – what if.. ? discussion and reflection
- Table-top exercise – simulated incident with scripted injects/events
- **Live exercise – immersive simulation**

Live Exercises

- Multi-agency → Collective Training
- Live / Virtual / Constructive mix
- Examples:
  - VIKING 18 – organised by the Swedish Armed Forces
  - Exercise Unified Response – organised by the London Fire Brigade

Complex, long lead times, large numbers of participants and assets

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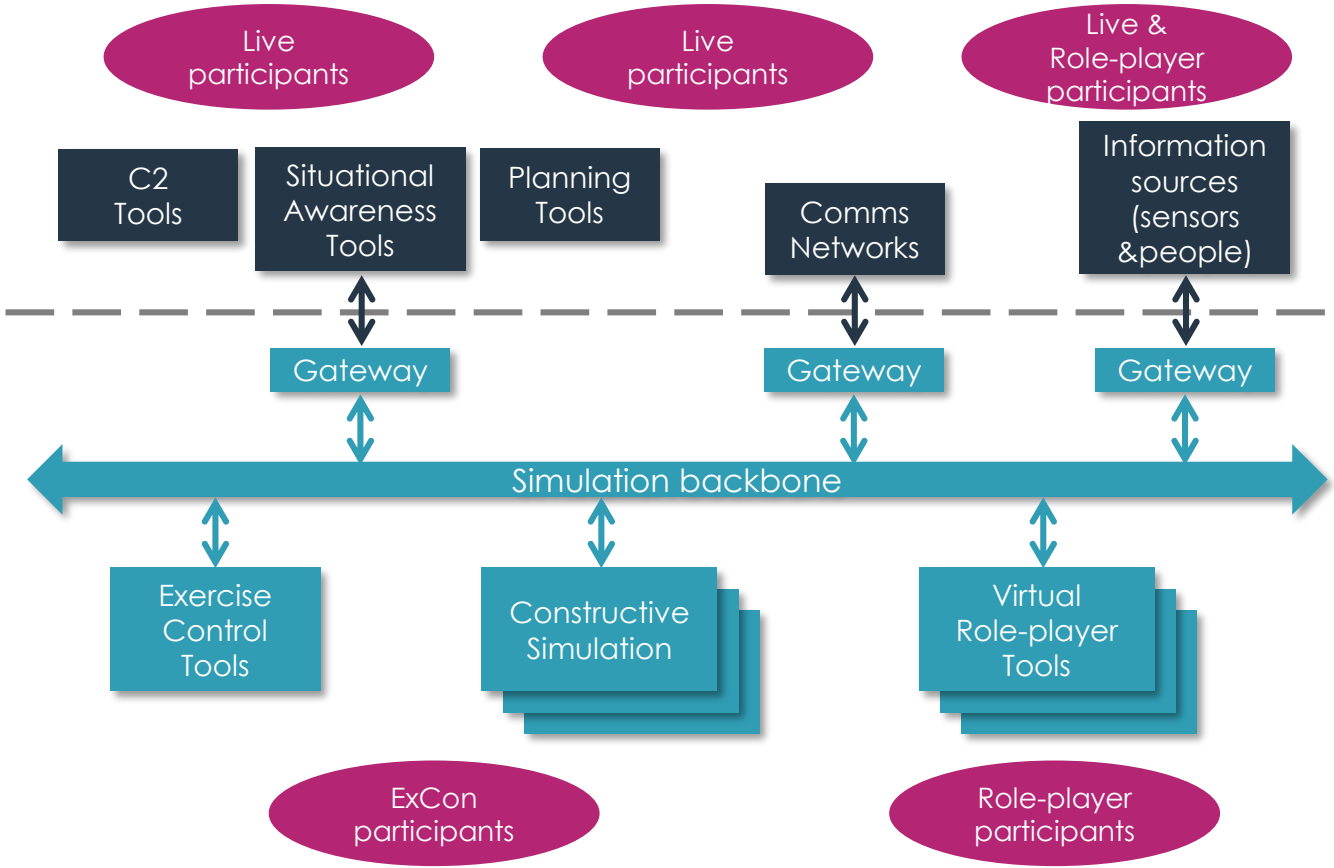
Exercise Architecture – Generic Sketch



Same systems used for training as used during an incident

Live

Virtual & Constructive

Examples:

- **Scenario generation**
- **C2 stimulation**
- **Mapping**
- **Pattern of life**
- **Traffic models**
- **Pseudo data feeds (e.g. AIS,ADS-B)**
- **Weather**
- **3D Visualisation**
- **LOCON/HICON**

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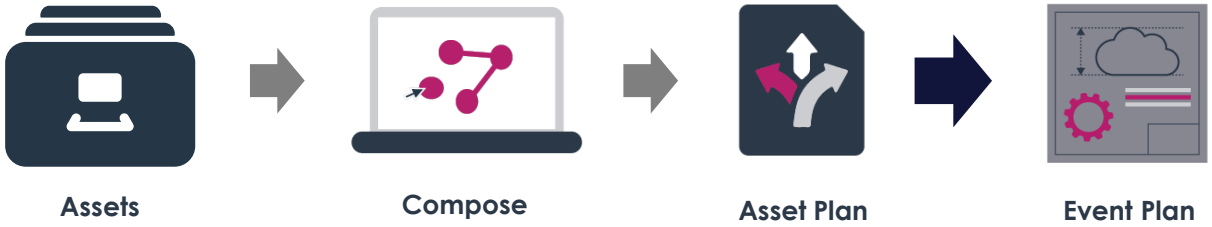
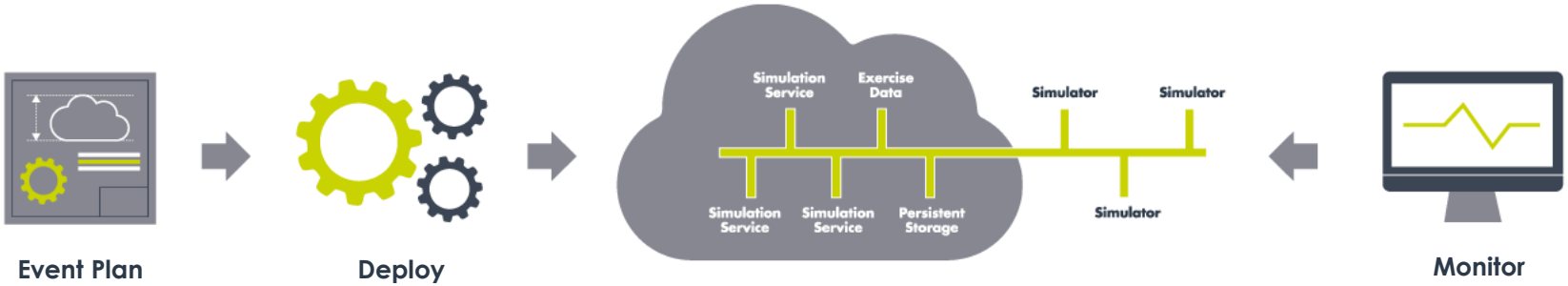
Application of MSaaS - tooling

NUADA

Data model driven asset management and composition



Enables automated deployment of networked simulation environments



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Expected MSaaS Benefits to Crisis Management Exercises

- Efficient use of simulation resources (assets) – buy/develop once, use many times
- Reduce technical expertise required for creating/deploying simulations - by capturing and reusing simulation designs (asset plans)
- Save time creating and deploying simulations – through reuse and automated deployment
- Capitalises on the benefits of recent IT/cloud developments – agile allocation and use of computing resources
- Collaborative working – by providing a shared (and controlled) development environment;
- Potential for different business models (e.g. Pay As You Go) – but don't underestimate the work needed to introduce new models

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The authors would like to acknowledge the support to the MSaaS research from Dstl and the AIMS team, and also the Thales NUADA team

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