



# AnyLogic<sup>®</sup> 6

## Multi-Method Simulation Technology

David Buxton - [dave@dseconsulting.co.uk](mailto:dave@dseconsulting.co.uk)

*dse*   
CONSULTING

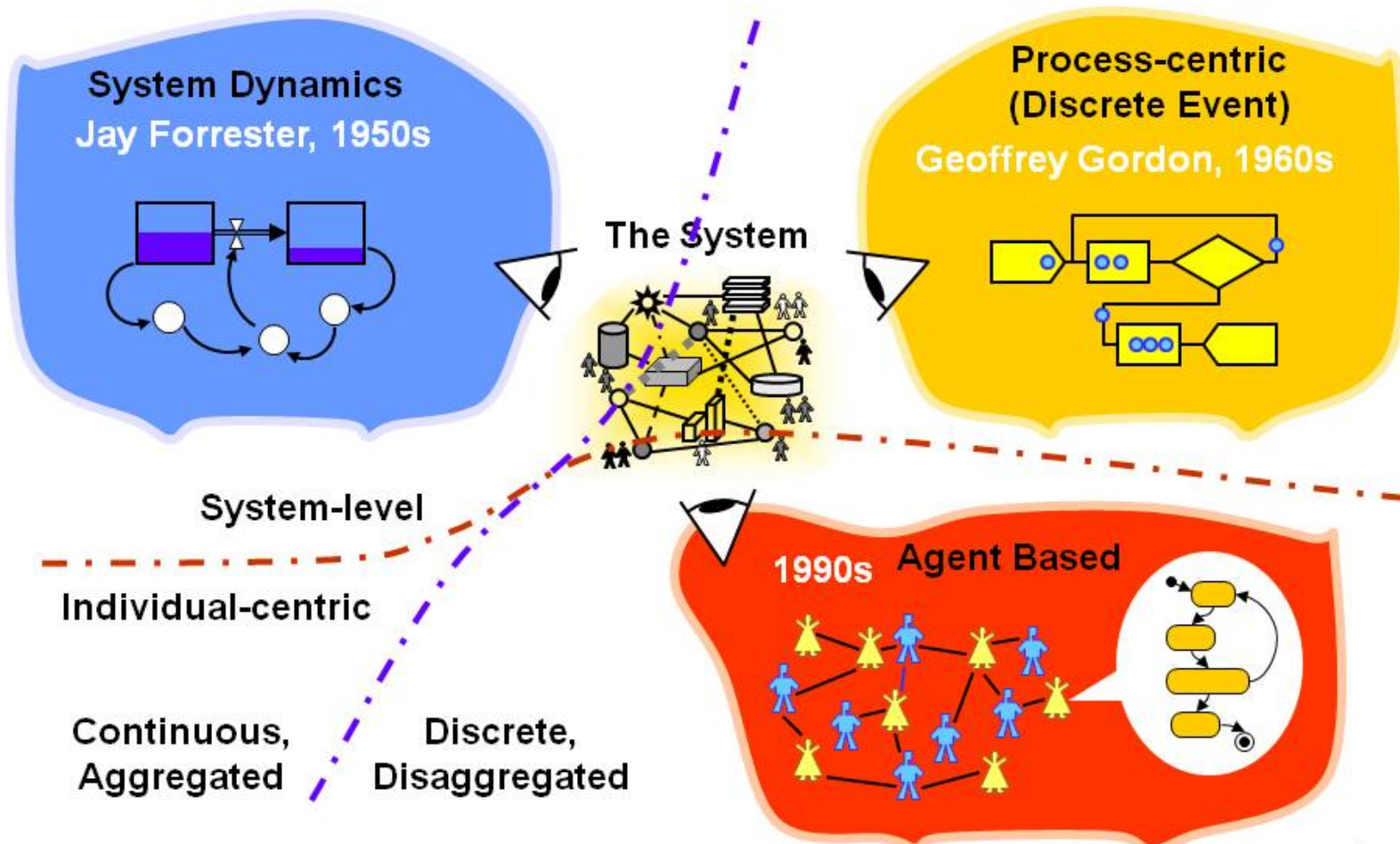
# Quick facts about DSE..

- Est. 2007 as a Consulting company
  - Development of simulation based decision support tools
  - Leading practitioner of Agent-Based Modelling & Simulation
  - Customers include Tesco, Rolls-Royce, Agusta Westland
- UK Partner for AnyLogic since 2008
  - Sales, Training, Support, Mentoring, ...
- Part of a collaborative network of European Simulation based decision support consulting companies
  - decisionLab, Fair Dynamics, Critical Software Technologies

# Quick facts about AnyLogic..

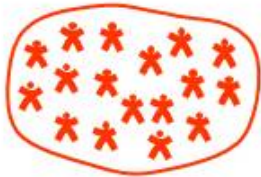
- Product launched in 2000
- Not really a simulation tool
  - More of a simulation development environment
- Developed using OO techniques and built in the eclipse environment
  - *Obj. Worry less about the paradigm and focus on the potential for modelling*
- Advanced, Professional & Academic versions

# Simulation modelling methods

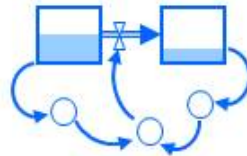


# AnyLogic's Multi-Method modelling

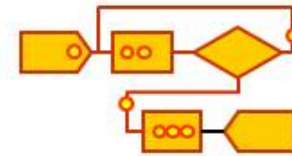
Pure AB



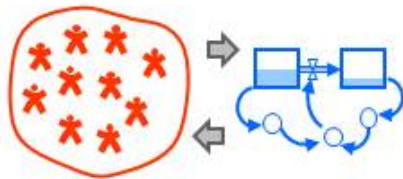
Pure SD



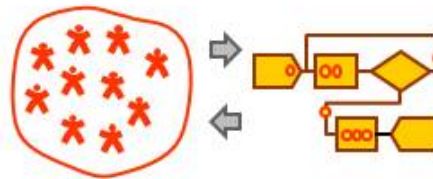
Pure DE



AB + SD



AB + DE



DE + SD



AB + SD (2)



AB + DE (2)



etc, etc, etc...

# Some examples..

- Market place dynamics
  - <http://www.runthemodel.com/models/347/>
- Insurgency dynamics
  - <http://www.runthemodel.com/models/229/>
- Agent Population within an SD Environment
  - <http://www.runthemodel.com/models/391/>

# The AnyLogic competitive advantage..

1. The modeller has more flexibility than any other simulation tool
  - a. Never use a workaround or 'square peg, round hole'
2. Agents:
  - a. the opportunity to model behavioural and decision-making complexity that exist in many system
  - b. Decentralised systems are more commonplace
    - i. social network theory
  - c. Complex adaptive systems
3. Simple integration into existing business software
  - a. Through the one-click creation of Java applications

# The future..(not SD specific)

- Continued focus on the Multi-Method modelling approach
- Increased simplification and development of an Agent-Based modelling framework
- Simulation as a Service
  - Cloud based simulation modelling



**Thank you for you time..**

**Questions?**

**dave@dseconsulting.co.uk**