

# Expectations in Industry

Elliot Tonkes  
ECR Workshop  
September 2009

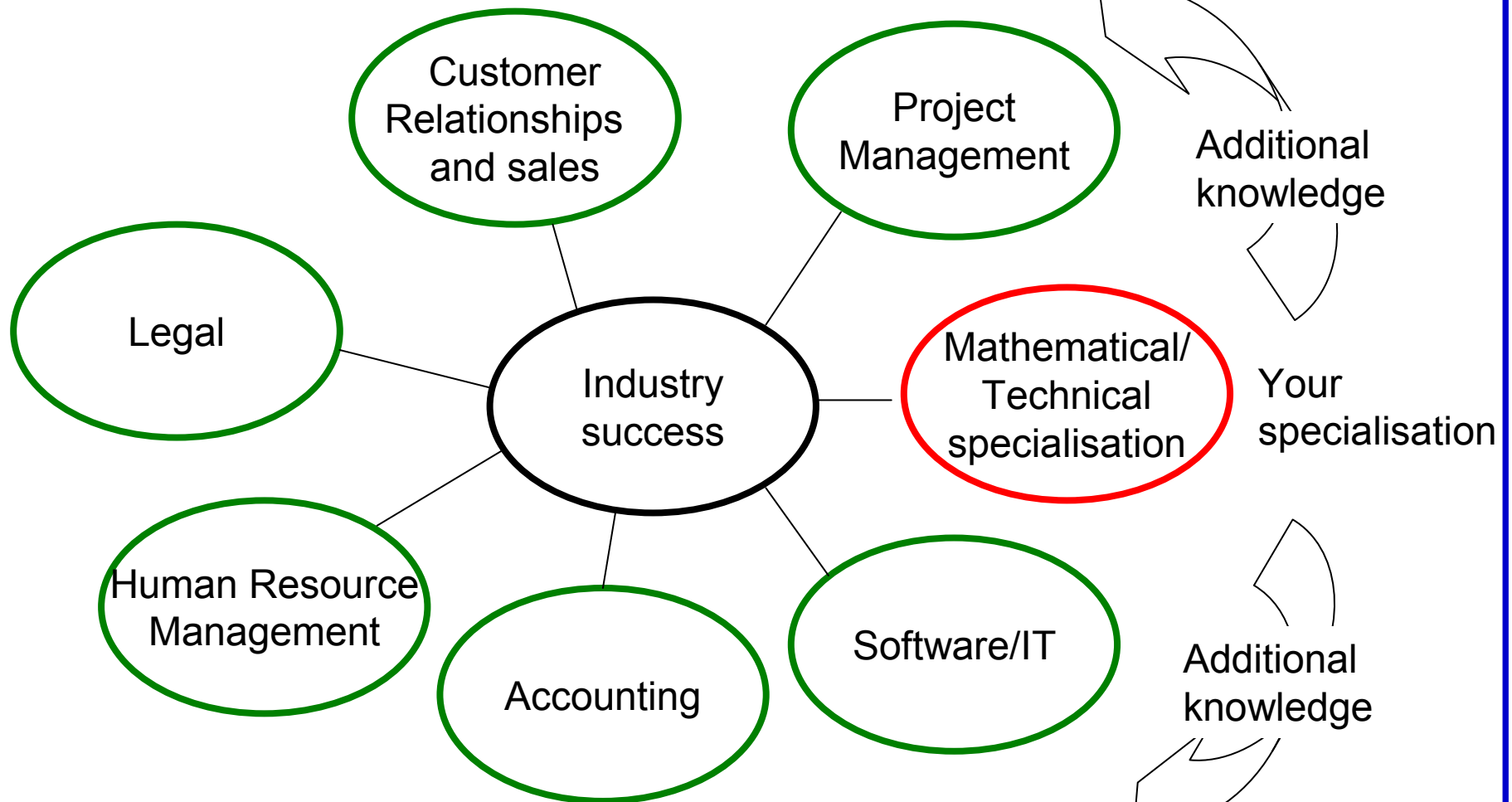
# Career avenues in industry

- Pure government (eg Treasury)
- Government research (eg CSIRO, DSTO)
- Corporatised government (eg Energy)
- Private sector (BHP through to pharm)
- Contracting (short/long term contracts)
- Startup (consulting or business startup)

# Attributes of mathematicians

Literacy	<i>Expected to be very good. Reporting and communication skills very important</i>
Numeracy	<i>Expected to be excellent</i>
Modeling	<i>Competitive advantage of mathematicians</i>
Problem solving	<i>Competitive advantage of mathematicians</i>
Domain knowledge	<i>New industry-specific domain knowledge required to add value</i>

# Role of mathematics in industry



# Expectations

- *How much academic education is used:*
  - Generally the broad spectrum of your knowledge to honours.
  - Then particular technical specialisations relative to your industry.
  - It may be statistics, algorithms, differential equations.
  - It is likely to be different to the subject matter specialisation of your PhD
  - Expect to use your research skills but with a different focus.

# Expectations

- *Freedom for research:*
  - Research efforts generally focussed to outcomes
  - Limited ability to publish work but depends on industry or employer
  - IP controlled and owned by employer
  - The training budget is typically spent on industry-specific training.