

Developing a Digital Competencies Framework for the Australian Energy Industry

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Background

- The energy sector continues to generate data at an astounding rate
- Datasets represent critical assets that can enable sector-wide transformation from improved efficiency, effectiveness, and safety of operations, reduced environmental footprint, to business model disruption
- To leverage datasets, the sector needs to significantly upgrade the digital skills of its workforce.

Approach and Methodology

Mixed methods

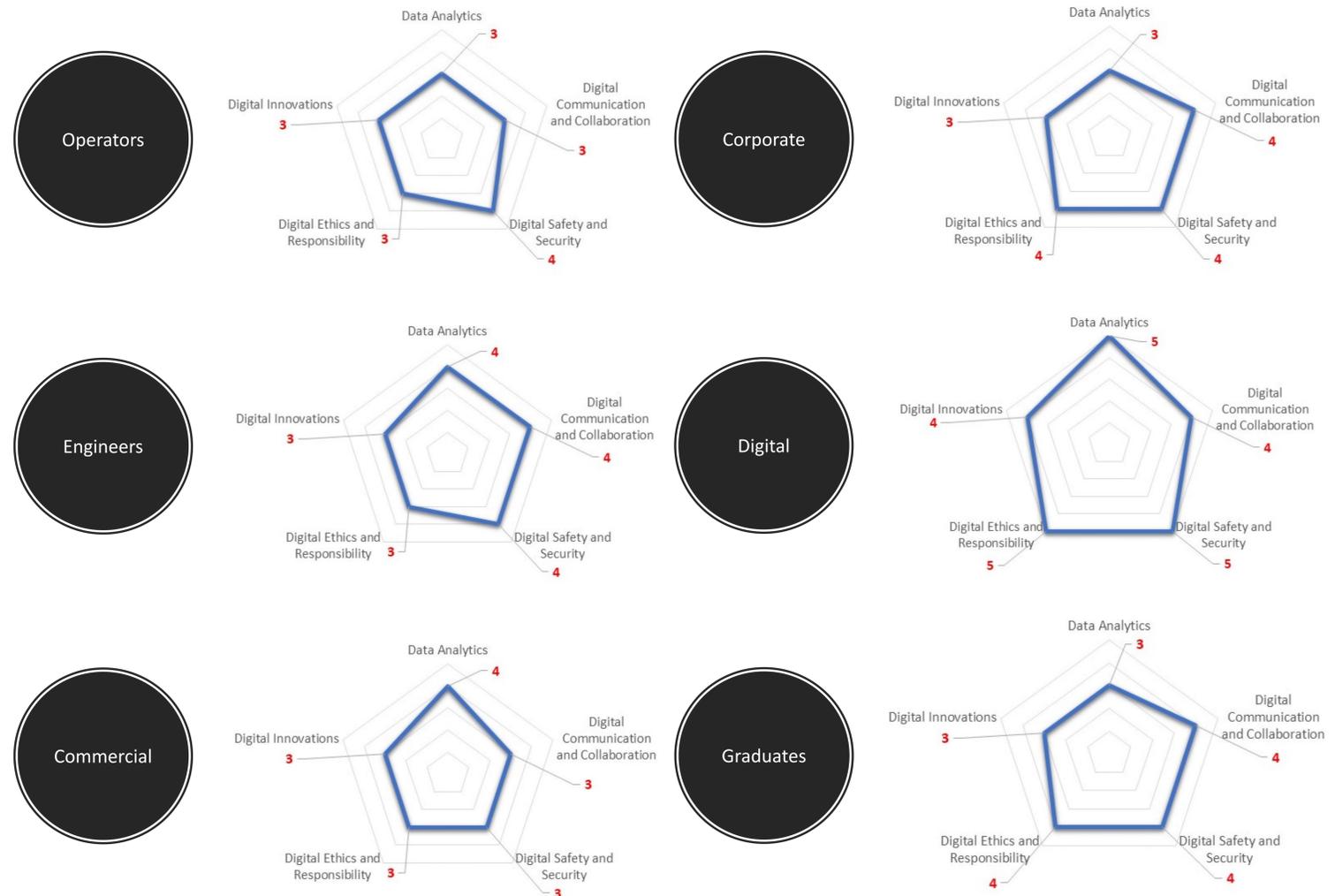
- a) semi structured interviews with key stakeholders and b) survey
- Phase 1: Literature Review to establish Digital Skills Framework
- Phase 2: Interviews with professionals who represented six groups within the energy sectors: operators, engineers, commercial, corporate, digital, and graduates.
- The interviews explored:
 - the nature of work and the how did each participant interact with data
 - what are the digital technologies that were used and why
 - what are some of the major opportunities and challenges faced when interacting with and/or leveraging data and digital technologies

Digital Skills Framework

- **Data analytics:** the ability to search, retrieve, integrate, validate and evaluate data.
- **Digital communication and collaboration:** the ability to present data analytics and to collaborate across several platforms, organisations, and geographies.
- **Digital safety and security:** the ability to protect data, systems, and to ensure that technologies are used safely in the workplace.
- **Digital ethics and responsibility:** the ability to use data and technology in line with ethical and privacy standards and to promote responsible innovation.
- **Digital innovation:** the ability to design and/or experiment the opportunities (i.e., affordances) that digital tools and digitisation provide to optimise business innovation.

Next steps:

- **Phase 3:** conduct a survey to measure the current digital skill competency levels of the workforce. The survey will give us greater insights into the gap between the desired levels of proficiency and the current workforce skills.



Phase 2 findings:

Proficiency levels [Literacy (1) Competency (2) Proficiency (3) Fluency (4) Savvy (5)] were analysed according to the five sets of **digital skills:** data analytics, digital communication and collaboration, digital safety and security, digital ethics and responsibility, and digital innovation.

