

## **ITT2B -Scenario: Systems Engineering**

### **Question**

In no more than 1500 words contained in a maximum of 4 sides of A4 (pictures, diagrams, etc., may be included in the sides of A4 limit) describe under the sections below, your company's capability and application of Systems Architecture (in the Systems Engineering prospective) in the delivery of a major transport system:

1. Understanding of the difference between architecting buildings and architecting systems.
2. Understanding of the role played by systems architecture, e.g. what is it for?
3. Understanding the process of system architecting (in the sense of ISO/IEC/IEEE 15288: 2008).
4. Understanding the importance of defining the boundaries of a system architecture.
5. Understanding how the process of system architecting relates to other systems engineering processes, especially interface management and the requirements management processes, and how they should be evolved through the overall system lifecycle?
6. Understanding the role of Architecture Description (in the sense of ISO/IEC/IEEE 42010: 2011).
7. Understanding how to evaluate system architectures, e.g. what counts as 'good'?
8. The availability of architecture frameworks (in the sense of ISO/IEC/IEEE 42010: 2011) suited to the task.
9. The availability of computer-aided tools to support including understanding of strategies, protocols and methods to exchange systems architecture data between tools.
10. Understanding 'model-based systems engineering'.