Task environments are essentially the "problems" to which **rational agents**1 are the "solutions". Therefore, in designing an agent, the first step must always be to specify the agent's task environment as fully as possible. The PEAS (Performance, Environment, Actuators and Sensors) description is the main construct used to do so.

**Performance measures** are the metrics used to define the success of an agent in completing a certain task.

The **environment** is the surroundings or conditions in which an agent needs to deliberate its actions.

**Actuators** are the things (tools, equipment and organs) used by an agent to perform actions in the environment.

**Sensors** are the things used by an agent to capture the state of the environment.

1For each possible percept sequence, a rational agent is an agent which selects an action that is expected to maximise its performance measure, given the evidence by the percept sequence and whatever built-in knowledge the agent has.