RE framework

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  - System context
  - Core activities
  - Requirements artefacts
  - Validation
  - Management

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The part of the system environment relevant for defining, understanding, and interpreting the system requirements
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- **Subject facet**: objects and events that are relevant for the system, because the system must store or process information about these objects.
- **Usage facet**: aspects concerning the usage of the system by people and other systems.
- **IT system facet**: aspects concerning the operational or technical environment in which the system is deployed.
- **Development facet**: aspects that influence the development of the system, imposed by law, or by client and relate to the development process.

But design changes the world…
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Document important information elicited or developed when performing a core the RE activity

- *i.e.*, documentation, elicitation, negotiation, validation and/or management
Achieve progress in the content dimension by eliciting new requirements as well as detailed information about existing requirements:
- Elicit all requirements at the level of detail for the system to be developed..

Achieve agreement among all stakeholders about the requirements:
- Has to deal with conflicts about requirements.
Is there a “Requirements Lifecycle”

Source: Adapted from Pohl, CAISE 1993

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What are requirements?

- **Domain Properties:**
  - things in the *application domain* that are true whether or not we ever build the proposed system

- **Requirements:**
  - things in the *application domain* that we wish to be made true by delivering the proposed system
    - Many of which will involve phenomena the machine has no access to

- **A Specification:**
  - is a description of the behaviours that the *program* must have in order to meet the *requirements*
    - Can only be written in terms of shared phenomena!
Intention with regard to objectives, properties, or use of the system

Document sequences of interactions in which the system satisfies some goals or fails to satisfy them
Specify requirements at the required level of detail, the desired properties and features of the system to be developed.

Documenting requirements artefacts

- Identifier
- Description
- Requirements artefact
- Goal
- Scenario
- Criticality
- Priority
- Risk
- Solution-oriented requirement
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Validation
- Consideration of system context
- Execution of RE activities
- Created requirements artefacts

Validation techniques:
- Inspection
- Reviews
- Walkthroughs
- Perspective-based reading
- Prototyping
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- Establishing requirements traceability
- Prioritising requirements
- Managing changes of requirements artefacts
Take Home!!!

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