Requirements Capture

Michael Neale

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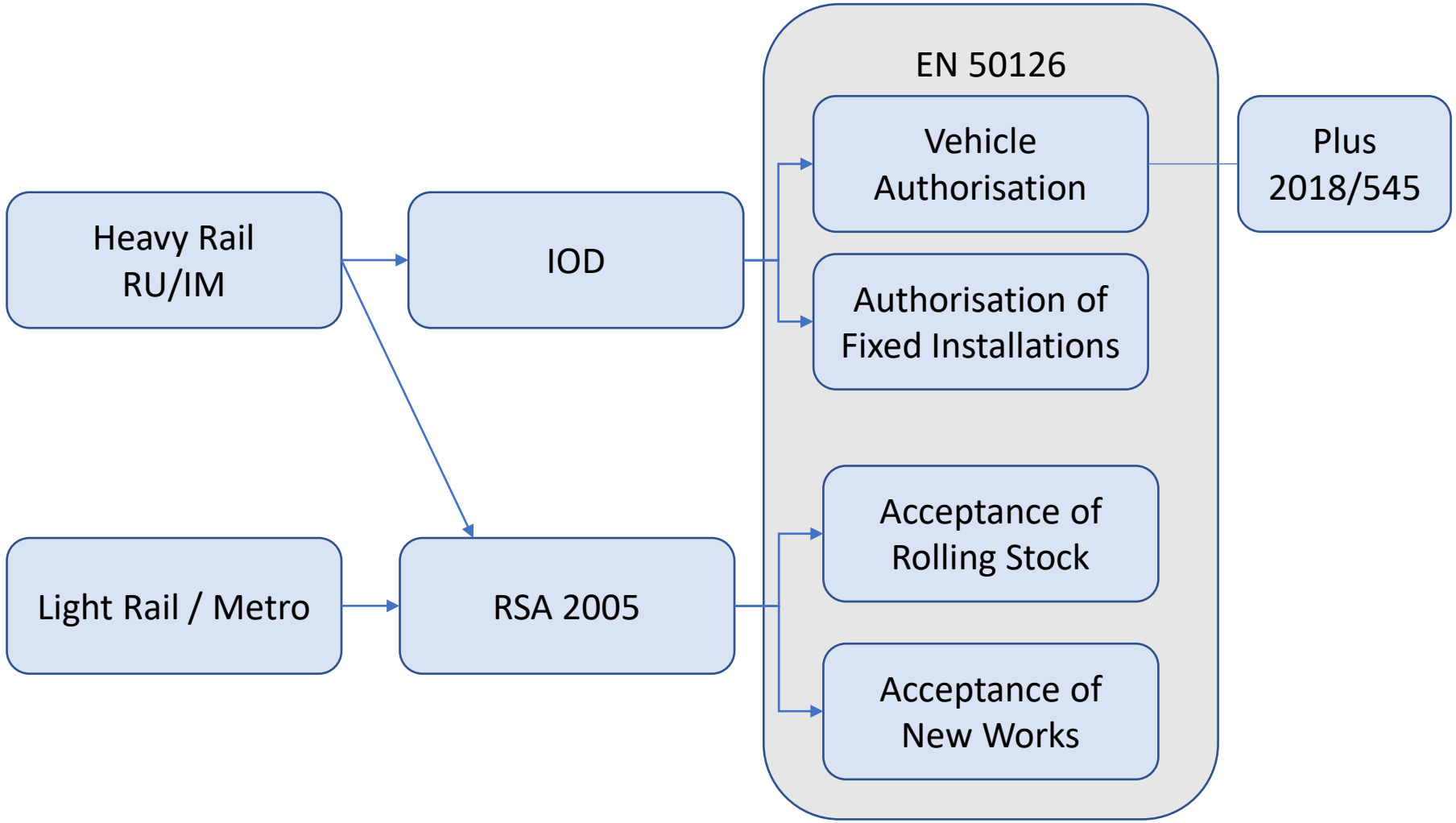

DIRECTIVE (EU) 2016/797 IOD
RAILWAY SAFETY ACT 2005 as amended
Regulation (EU) 2018/545
BS EN 50126-1:2017

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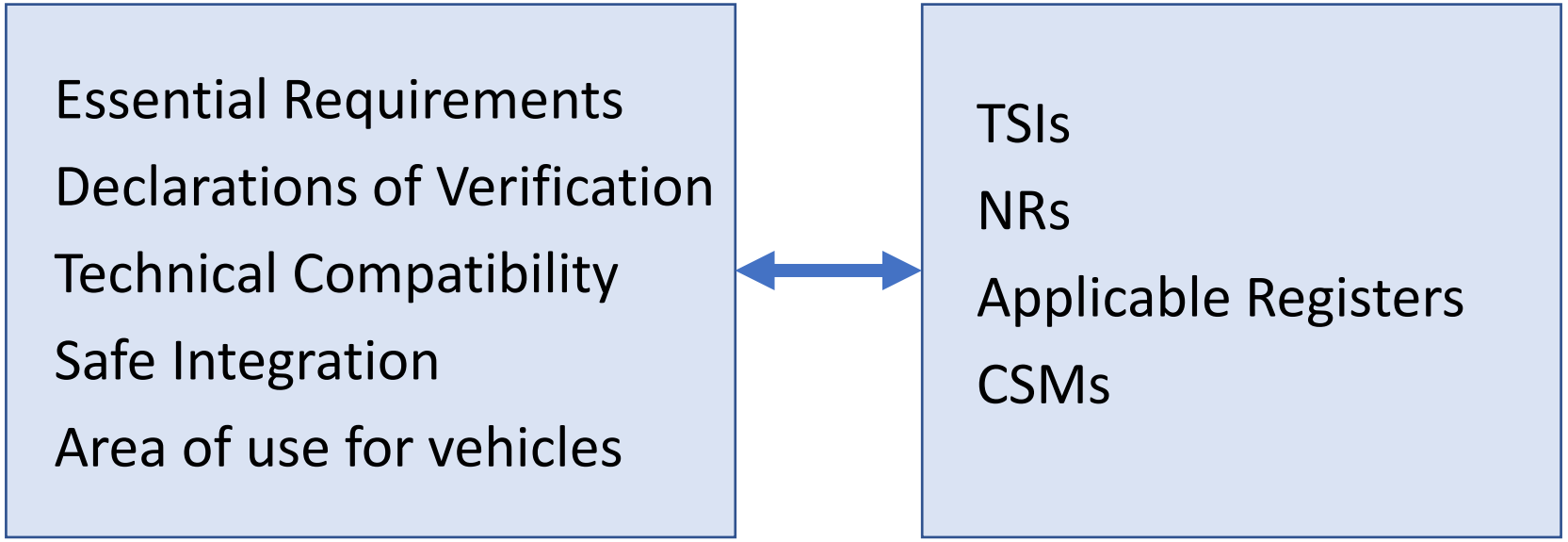
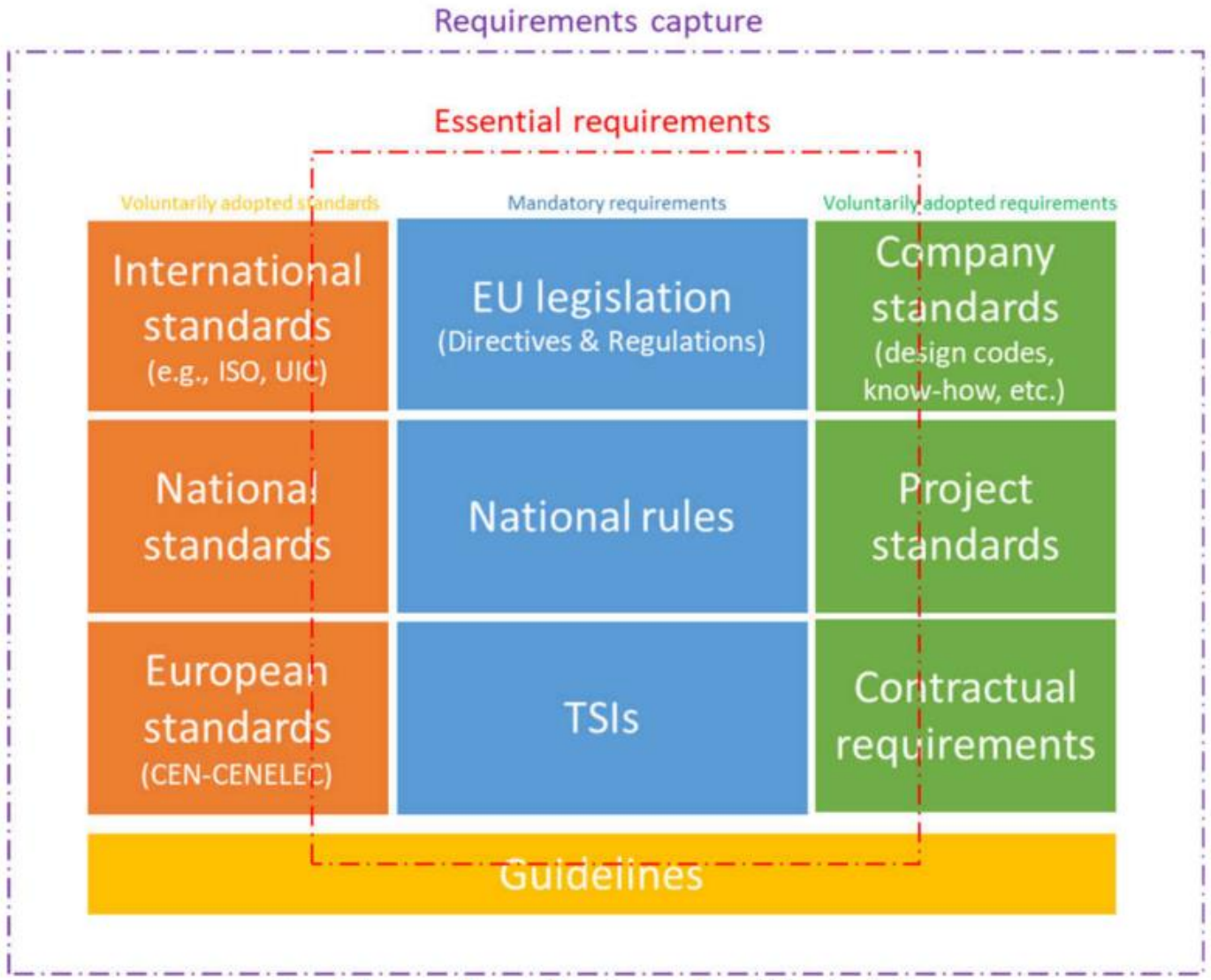
What is ‘Requirements Capture’?

(EU) 2018/545:

- Identification
- Assignment
- Implementation
- Validation

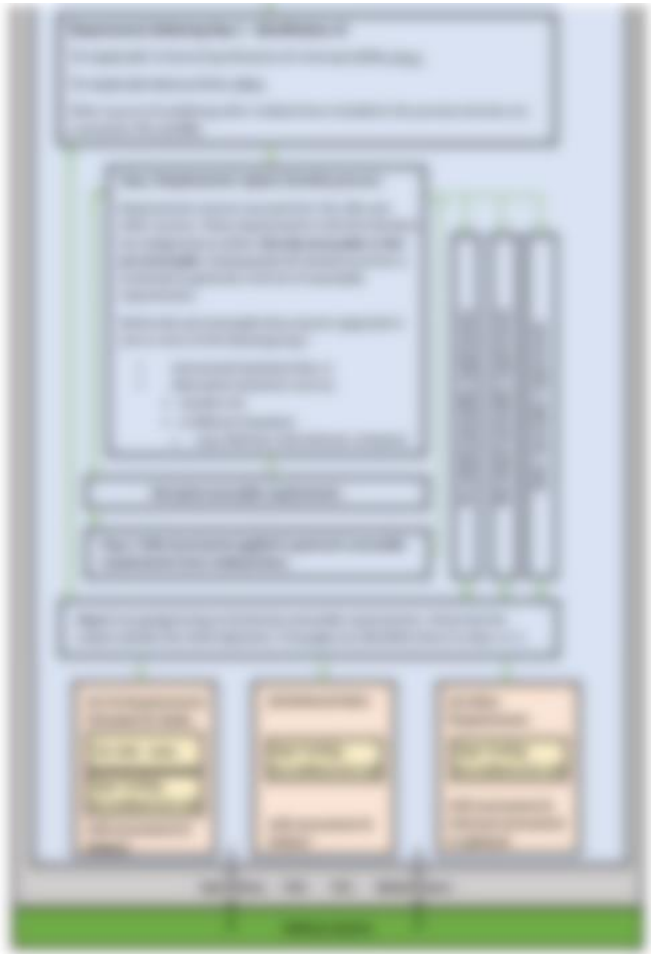
What are the Requirements (IOD)?





ERA1209/146 V1.1 Figure 2

CRR-G-009 Annex 5 Figure 1



https://www.crr.ie/assets/files/pdf/crr-g-009-g-annex5.pdf

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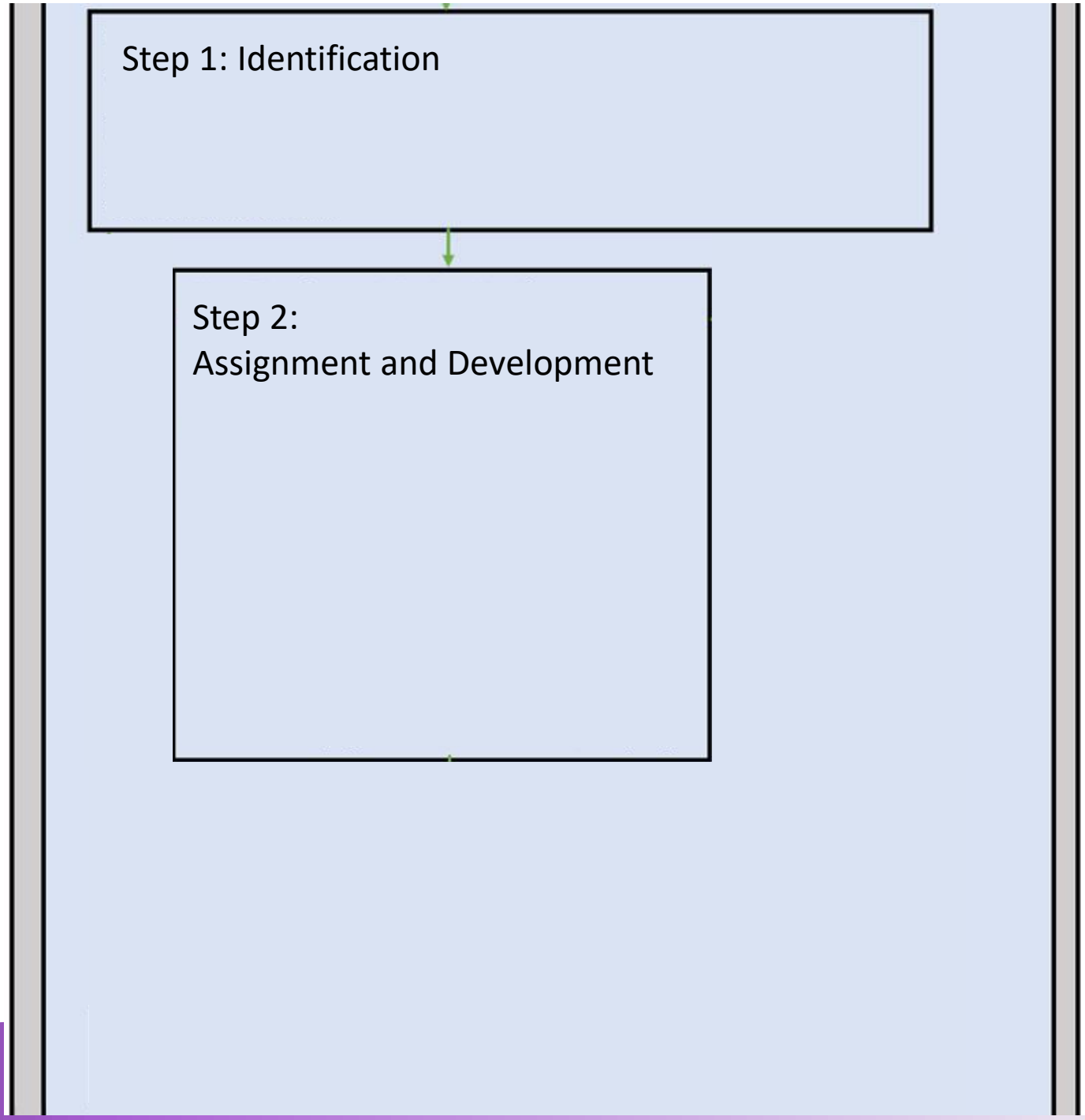
Entity Making Change Responsibilities

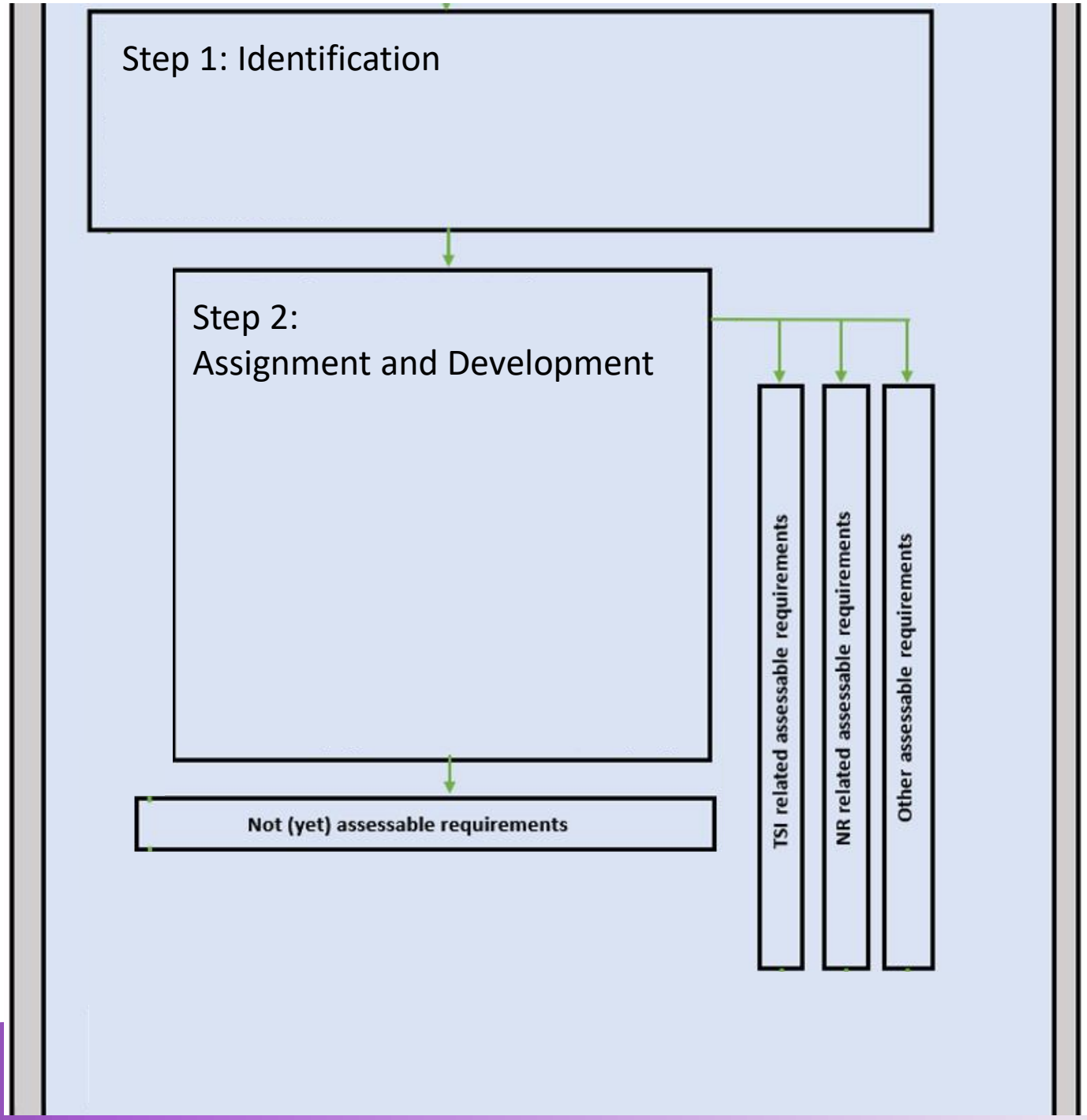
- Significance Check
- Placing in Service
- Configuration management
- Determine if authorisation is required

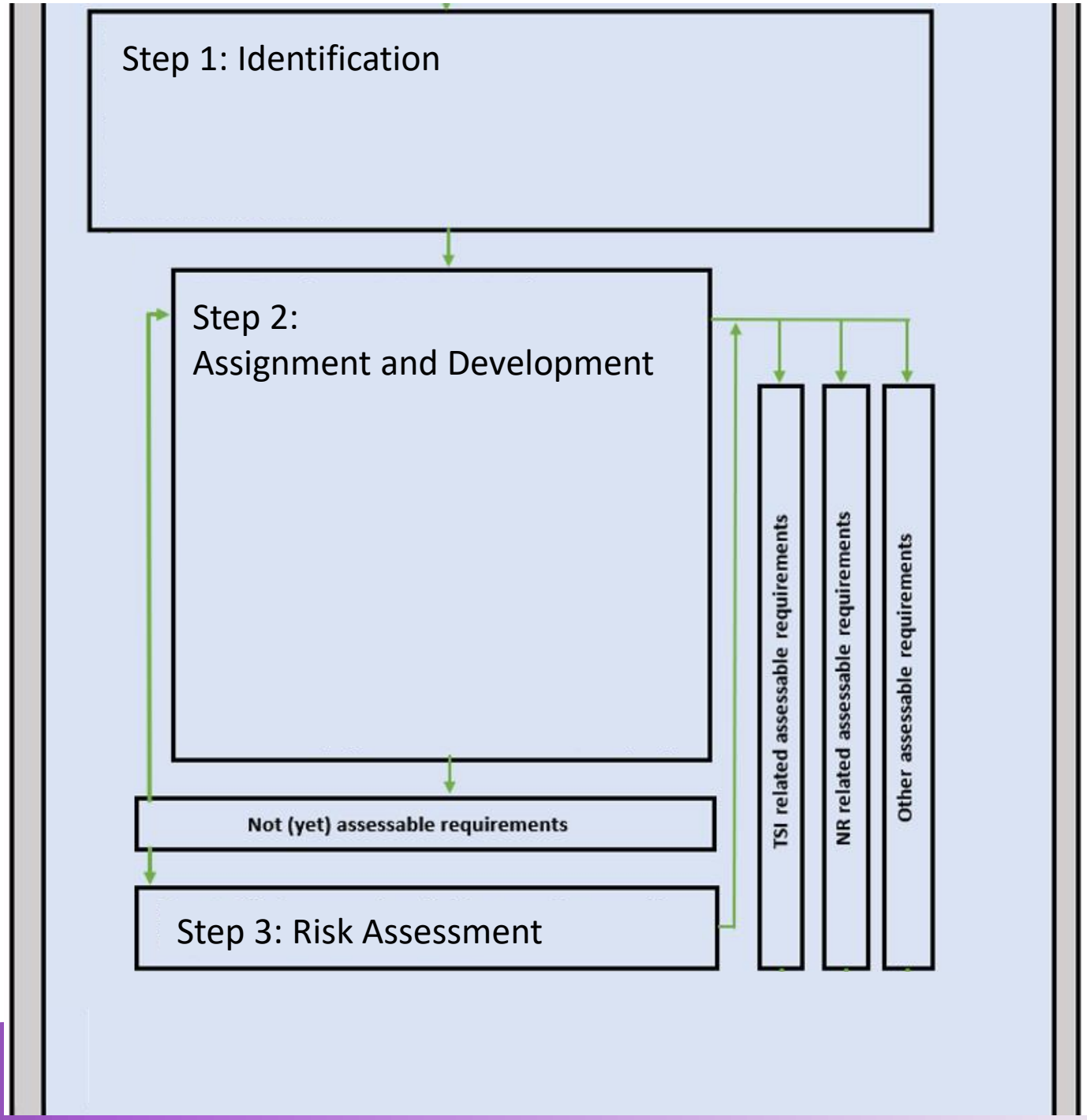
Applicant Responsibilities

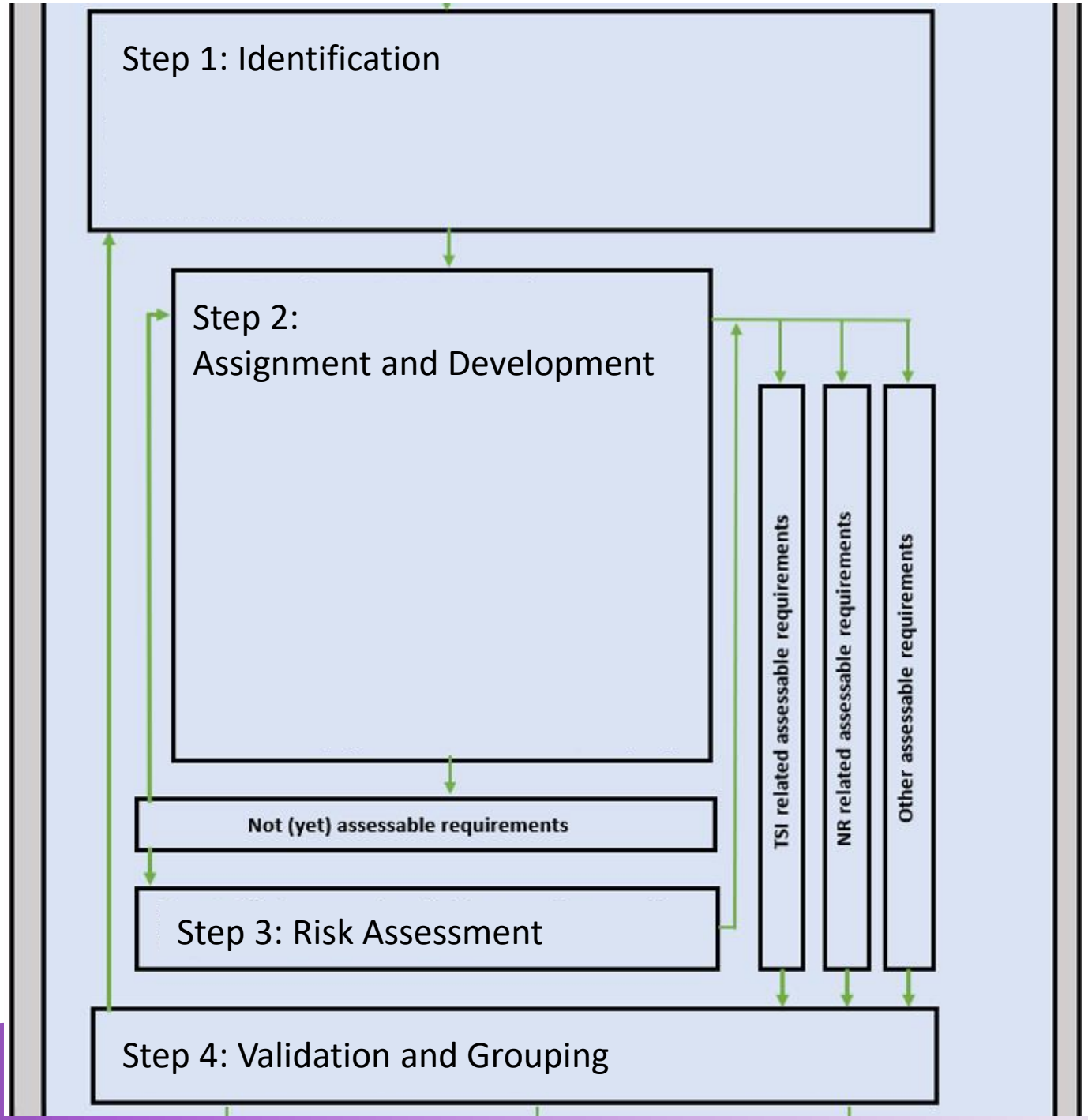
- Requirement capture
- Determine authorisation(s) required

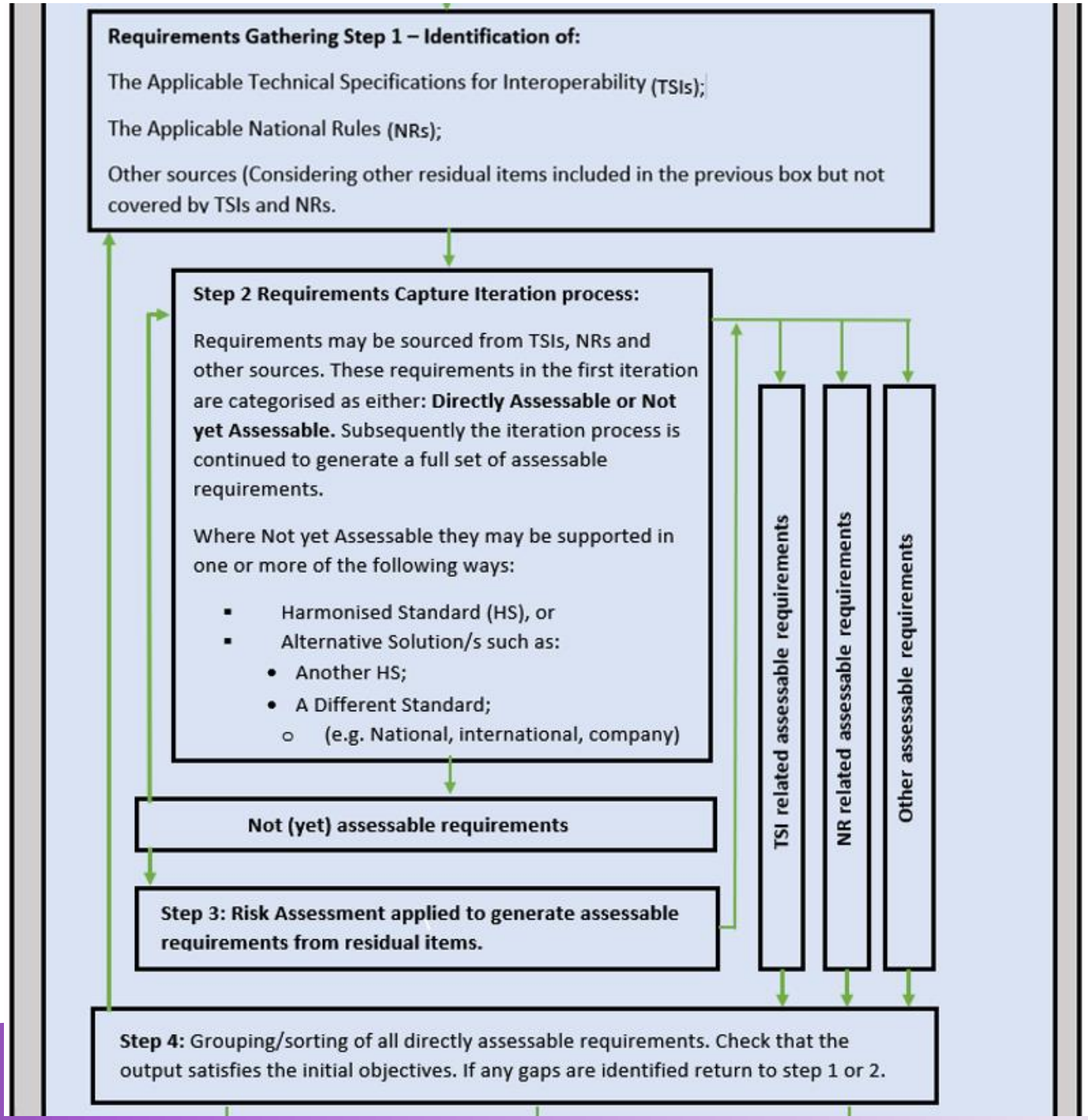
Step 1: Identification


Step 1: Identification
Step 2:
Assignment and Development


Step 1: Identification
Step 2:
Assignment and Development
TSI related assessable requirements
NR related assessable requirements
Other assessable requirements
Not (yet) assessable requirements


Step 1: Identification
Step 2:
Assignment and Development
TSI related assessable requirements
NR related assessable requirements
Other assessable requirements
Not (yet) assessable requirements
Step 3: Risk Assessment


Step 1: Identification
Step 2:
Assignment and Development
TSI related assessable requirements
NR related assessable requirements
Other assessable requirements
Not (yet) assessable requirements
Step 3: Risk Assessment
Step 4: Validation and Grouping



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Example

- TSI LOC and PAS 4.2.2.9. Mechanical characteristics of glass (other than windscreens)
  - Where glass is used in glazing (including mirrors), it shall be either laminated or toughened glass which is in accordance with one of the **relevant publicly available standards suitable for railway application** with regard to the quality and area of use, thereby minimising the risk to passenger and staff being injured by breaking glass.
- ISO 22752:2021(en) Railway applications — Bodyside windows for rolling stock
  - ISO 3917:2016 Road vehicles — Safety glazing materials — **Test methods** for resistance to radiation, high temperature, humidity, fire and simulated weathering
  - ISO 7892:1988, Vertical building elements — **Impact resistance tests** — Impact bodies and general test procedures

Summary

- Requirements management is Crucial
  - Identification, Assignment, Implementation and Validation
- The applicant is responsible for Requirements Capture
- Requirements broader than TSIs and NRs
- Acceptable Approach in CRR-G-009 Annex 5

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