Requirements Evolution: AS-IS vs. To-BE

Recall:

Problem = desired - perceived

A problem can be defined as the difference between things as perceived and things as desired.

Understand:

- The perceived
- The problem – do not create any unreal problems
- The desired
AS-IS vs. To-BE in Requirements Evolution

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In RUP, vision doc. = problem stmt

Understand:
- The perceived
- The problem – do not create any unreal problems
- The desired

Desired' (TO-BE')

M^G, Prog^G :: S^G; S^G, D^G :: R^G; R^G, D^G :: G; (G :: ¬P) V (G :: ¬P)
Property Preserving Evolution

$$(G_i^s, S_i), (D_i, X_i, G_i^x) \models R_i ; (G_i^s, S_i), (D_i, X_i, G_i^x) \models G_i^r ; (G_i^r, R_i), (D_i, X_i, G_i^x) \models G_i^d$$

AS-IS

TO-BE

TO-BE becomes AS-IS

dependency/traceability
ER-Fi: The initiator may ask important participants to state preferences about the meeting location

ER-NFi: furthermore it should ideally belong to one of the locations preferred by as many important participants as possible. It is absolutely necessary, however, to allow each meeting to take place in a virtual place, e.g., through teleconferencing using laptop computers. This flexibility is considered crucial in future. The number of negotiations should be kept minimal, but a new round of negotiation may be required when no such room can be found.

S-FRj: SDMS shall assist users in the following activities:
- Monitor meetings, especially when they are held in a distributed manner;
- Plan meetings under the constraints expressed by participants (see domain theory);
- Replan a meeting to support the changing user constraints, for instance:
  – to modify the exclusion set, preference set and/or preferred location before a meeting date/location is proposed; and
  – to take some external constraints into account after a date and location have been proposed --- e.g., due to the need to accommodate a more important meeting --- here, the original meeting date or location may then need to be changed; sometimes the meeting may even be cancelled.

S-NFRj: The meeting date and location should be as convenient as possible, and available as early as possible, to all (potential) participants;
ERi: The initiator may ask important participants to state preferences about the meeting location.

**Issue::** ERi: The initiator *may* ...

- ERi: The initiator shall determine the location
  - ERi.1: on her own and notify all the potential participants or
  - ERi.2: ask important participants to state preferences about the meeting location.
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What else?
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Traceability means many things will often need to be repeated or look similar.
Would the following be about AS-IS or TO-BE?