

EPOS WP 5 – Cross-Sectorial Validation

Lead: Veolia

Checklist of criteria/conditions for successful IS

D 5.1

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Summary

The EPOS partners are developing a toolbox (the EPOS toolbox) to support Industrial Symbiosis (IS) identification and optimisation for cross-sectorial energy and resource integration.

The main focus in WP5 is on cross-sectorial validation of the IS toolbox tested in the various EPOS clusters. WP5 tasks aim to define which realistic industrial conditions lead to IS success. These actions build on findings from other WPs, namely on the work carried out using the LESTS/PPP methodology throughout WPs 1, 2, 3 and 4 (LESTS surveys and SWOTs in WP1, LESTS deeper scans in WP2, merging LESTS/PPP and integration into the EPOS toolbox in WP3, and the development of the Generic Assessment Matrix in WP4).

This work resulted in a first **checklist of 11 criteria and conditions for successful IS**, grouped by five categories (based on LESTS categories). This checklist aims to provide a list of the most relevant factors and conditions that enable and promote success in IS initiatives. The checklist thus provides a synthesis of lessons learned and methods developed (as LESTS/PPP) in a simple to use format, easily accessible to industries and stakeholders.

It can be applied at each main step during IS implementation: appraisal, selection, definition, execution and operation. The goal is for an industry or economic player to have a quick overview of whether a given industrial site or park has the appropriate conditions to enable a successful IS initiative.

The checklist can be applied by industrials interested in or looking into IS. The higher the number of success criteria met the higher the likelihood of success; hence the higher the incentive to go forward to the next step.

Legal Framework

1. Policy context
2. Partnership framework

Economic Benefits

3. Monetary benefits: economic benefits
4. Non-monetary benefits: Environmental, Social and Image benefits

Social Acceptance

5. Awareness and Engagement
6. Community
7. Trust

Technical Feasibility

8. Duties, Needs, Wishes expressed and assessed
9. Transparency and Completeness
10. Techno-economic feasibility

Spatial Site Design

11. Proximity & Easy access

A visual presentation of the 11 factors is given in Figure 1, which is organised based on the five LESTS categories. Each of the 11 success factors is assessed through a short list of 1 to 3 questions. To make the presentation easy to use and coherent with LESTS methodology, the 11 success criteria were grouped into the five LESTS categories that include the technical and non-technical challenges and opportunities for IS: Legal framework, Economic benefits, Social acceptance, Technical feasibility and Spatial site design.

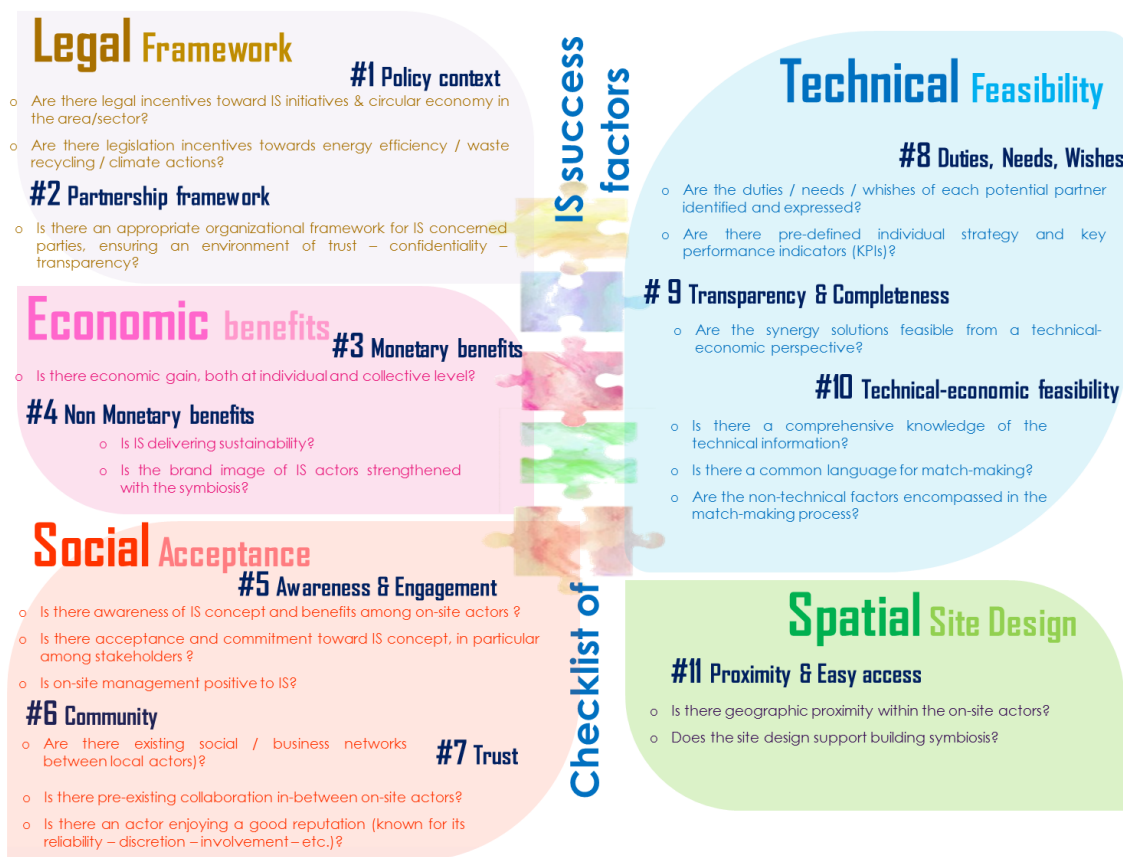


Figure 1: Checklist of IS success factors

For building the checklist, it was assumed that:

- IS success criteria are defined as factors or conditions enabling or promoting IS; this means factors reported to be associated with or directly increasing likelihood of success of IS initiatives.
- An effort to select generic conditions was made in order to ensure a robust and generally applicable checklist; this means that if the factor is present, in most cases, IS is facilitated and chances of success of specific projects with said criteria increase.
- No negative corollary can be drawn from the absence of a factor. For example, spatial proximity is in general an enabling factor for IS, which does not mean that successful symbiotic waste or by-product valorisations cannot be carried out even at great distances as suggested in D6.1 for certain rare and valuable elements.
- The checklist is applicable at all main stage gate steps for IS implementation: appraise, select, define, execute and operate project management (Figure 2).



Figure 2. Stage-gate model for IS defined in Task 6.2 (see also ASDEO approach in D4.2.) Source: STRANE