A key success factor will be to allow service-component ensembles to employ knowledge models and become aware systems. Therefore, an expected result is a reference model for self-awareness based on a formal method for knowledge modelling. In particular, realization of distinct knowledge models such as:

- service-component knowledge model
- servic- component ensemble knowledge model
- context knowledge model
- situational knowledge model

will be investigated, and mechanisms for processing knowledge models will be developed.

ASCENS will consider these issues in work package 3.