

# Autonomous Computing Engineering Reference Guide

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## 1. Datasheet

Solution data	
Name	Autonomous Computing Engineering Reference Guide
Result type	Methodology/guideline
Description/functionality	<ul style="list-style-type: none"> <li>A methodology for the design of autonomous systems based on agent technologies is described. The methodology introduces the concept of holons that allow the description of self-organisation in autonomous architectures. This concepts match nicely with the concepts of team-oriented programming in BDI agents, which is adopted in A6 for agent-based model-driven service-composition and choreography. However, the concept of holons is more general.</li> <li>The methodology introduces self-organisation, autonomy, flexibility, and robustness in service-oriented architectures. Interoperability is supported by explaining how general service-oriented architectures could be extended with these properties</li> </ul>
Benefits to interoperability	The methodology allows to introduce self-organisation, autonomy, flexibility, and robustness in service-oriented architectures. Interoperability is supported by explaining how general service-oriented architectures could be extended with these properties.
Supported models/methodologies	-
Supported input interfaces	-
Supported output interfaces	-
Validation/demonstration	Is used as a methodology in the design of the agent-based components of the demonstrators developed in ATHENA.
Standards compliance	-
Availability	-
License	-
Status	Concept
Requirements/dependencies	-

Web references	-
<b>ATHENA metadata</b>	
Contact person	Klaus Fischer, DFKI
Contributors	DFKI
Provided by project/activity	<ul style="list-style-type: none"><li>• A5 – Planned and Customisable Service-Oriented Architectures</li><li>• A6 – Model-driven and Adaptive Interoperability Architectures</li></ul>
Deliverables representing result	-
Contribution to key result	<ul style="list-style-type: none"><li>• 13. Model-driven and Adaptable Interoperability Framework and Infrastructure</li></ul>
Used in pilot	-
Deliverable providing evaluation	-