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## WORKING PAPER

# Repurposing the Resource-Event-Agent Enterprise Ontology Through Formalization

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**Abstract** -- Applications such as business modelling, model-driven software development, active use of knowledge specifications and enterprise application integration benefit from formal ontology specifications. In this paper we create two formal representations of an enterprise ontology, the Resource-Event-Agent Enterprise Ontology (REA-EO), aiming at repurposing its use to such more advanced applications. The first formal specification is graphical in nature and has as objective to more precisely capture REA-EO's semantics as well as an integrated definition of an extended set of structuring rules. The second formal specification is a machine-readable version of the REA-EO defined with the OWL knowledge representation language. We use a case study to demonstrate how business modelling and enterprise application integration benefit from these formal specifications.