

# Chapter 7 The Motivation Extension

The Motivation Extension includes the motivational concepts such as **goal**, **principle**, and **requirement**. It addresses the way the enterprise architecture is aligned to its context, as described by motivational elements.

In addition, the Motivation Extension recognizes the concepts of **stakeholders**, **drivers**, and **assessments**. Stakeholders represent (groups of) persons or organizations that influence, guide, or constrain the enterprise. Drivers represent internal or external factors which influence the plans and aims of an enterprise. An understanding of strengths, weaknesses, opportunities, and threats in relation to these drivers will help the formation of plans and aims to appropriately address these issues.

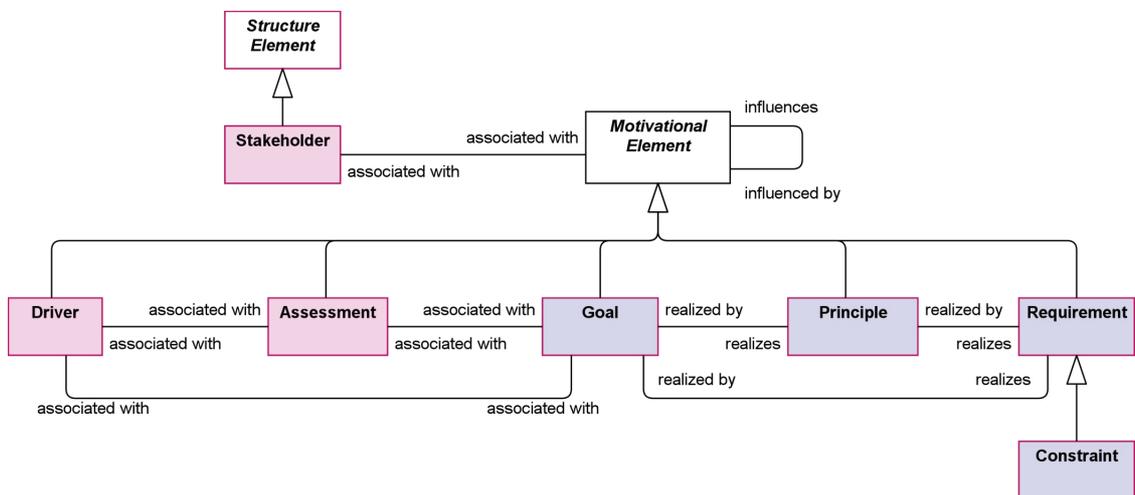


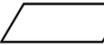
Figure 14: Motivation Extension Metamodel

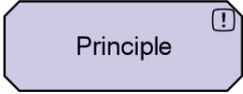
The main reason to introduce this extension in ArchiMate is to support Requirements Management, the Preliminary Phase, and Phase A (Architecture Vision) of the TOGAF ADM.

## 7.1 Motivation Extension Concepts

Motivational concepts are used to model the motivations, or reasons, that underlie the design or change of the enterprise architecture. These motivations influence, guide, and constrain the design.

**Table 12: Motivational Concepts**

Concept	Definition	Notation
Stakeholder	<p>The role of an individual, team, or organization (or classes thereof) that represents their interests in, or concerns relative to, the outcome of the architecture.</p> <p>In order to direct efforts to these interests and concerns, stakeholders change, set, and emphasize goals. The name of a stakeholder should be a noun.</p>	
Driver	<p>Something that creates, motivates, and fuels the change in an organization.</p> <p>Drivers may be internal, in which case they are associated with a stakeholder. Drivers may also be external; for example, changing legislation. The name of a driver should be a noun.</p>	
Assessment	<p>The outcome of an analysis activity for a driver or set of related drivers.</p> <p>An assessment may reveal strengths, weaknesses, opportunities, or threats for some area of interest. The name of an assessment should be a noun or a short sentence.</p>	
Goal	<p>An end state that a stakeholder intends to achieve.</p> <p>Goals are generally expressed using qualitative words; for example, “increase”, “improve”, or “easier”. Goals can also be decomposed; for example, “increase profit” can be decomposed into the goals “reduce cost” and “increase sales”.</p>	
Requirement	<p>A statement of need that must be realized by a system.</p> <p>Requirements represent the means to realize goals. The name of a requirement should be a short sentence.</p>	 
Constraint	<p>A restriction on the way in which a system is realized.</p> <p>This may be a restriction on the implementation of the system (for example, specific technology that is to be used), or a restriction on the implementation process (for example, time or budget constraints). The name of a constraint should be a short sentence.</p>	 

Concept	Definition	Notation
Principle	<p>A normative property of all systems in a given context, or the way in which they are realized.</p> <p>Principles are strongly related to goals and requirements. A principle defines a general property that applies to any system in a certain context. The name of a principle should be a short sentence.</p>	

## 7.2 Motivation Extension Relationships

The different types of relationships that can be used between two motivational elements and between one motivational element and one core element are show in Table 13.

**Table 13: Motivation Extension Relationships**

Intentional Relationships		Notation
Aggregation	<p>Aggregation models that some intentional element is divided into multiple intentional elements.</p>	
Realization	<p>Realization models that some end is realized by some means.</p> <p>It is used to represent the following means-end relationships:</p> <p>A goal (the end) is realized by a principle, constraint, or requirement (the means).</p> <p>A principle (the end) is realized by a constraint or requirement (the means).</p> <p>A requirement (the end) is realized by a system (the means), which can be represented by an active structure element, a behavior element, or a passive structure element.</p>	
Influence	<p>Influence models that some motivational element has a positive or negative influence on the realization of another motivational element.</p> <p>A positive influence relationship does not imply that the realization of the influenced motivational element depends on the contributing intention.</p> <p>A negative influence relationship does not imply that the realization of the influenced motivational element is completely excluded by the contributing motivational element.</p>	

As shown in Figure 15, a requirement or constraint can be related directly to a core element by means of a realization relationship. Other motivational elements cannot be related directly to core elements, but only indirectly by means of derived relationships via requirements or constraints.

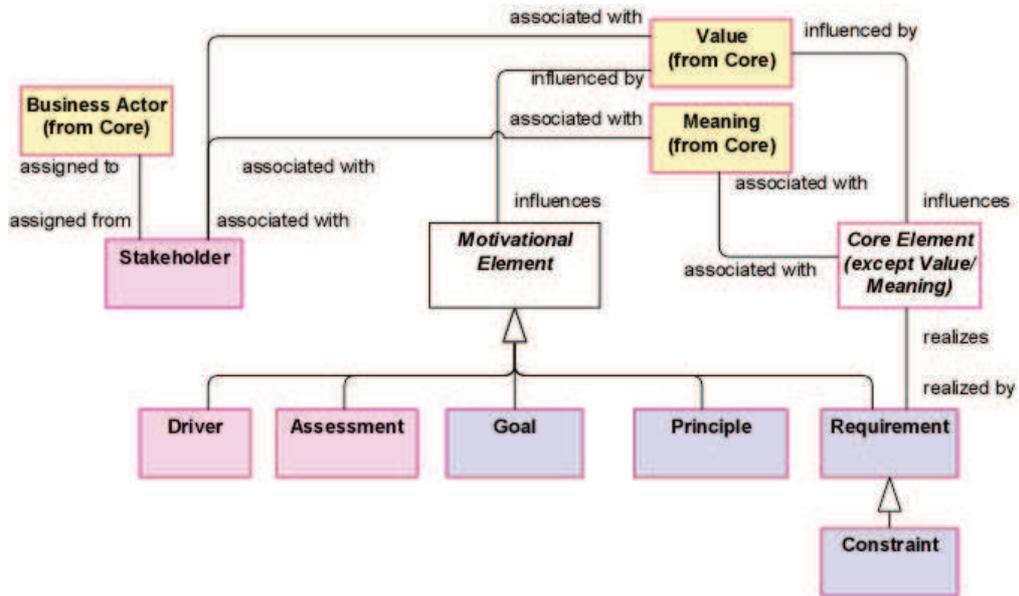


Figure 15: Relationships between Motivation Extension and the ArchiMate Core Concepts