

# An abstraction language for aligning Individual and organisational values

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## Abstract

I propose a set of values (without judgement or ethical connotation) which form an abstraction of an organisation's values and the values of individuals. They also provide a means of reasoning about and determining actions and outcomes, alignment and vision across an organisation.

## 1. Introduction

“Values drive behaviour. They can be thought as the principles by which both individuals and organisations live.” [1]

Organisations and individuals share values such as integrity, respect and quality, but it's not a one-to-one mapping. Many organisational values are comparable but not the same as the individuals. Understanding values, their relationships and synergies are complex. Although complex, various studies have shown that successful companies have shared core values and a core purpose.[4]

“Clarifying individuals' and companies' values can help to create a win-win outcome for all concerned. Individuals can find meaning in their work, and companies can develop a committed workforce that can function well through periods of change.” [1]

However, it can be highly challenging to discuss concepts like ‘integrity’ or ‘respect’ and map these to specific actions. Here follows an abstraction that sits between the organisation and the individual to serve as a clear means of communication.

## 2. Why Values?

Values drive us, and we act based on our feelings about the forces around us. Values play a role in how we think about timeliness and quality when conducting our normal work activities. It makes us who we are and affects our output.

Within differing contexts and across time, an individual's values may also change in priority and weight.

“When we think of our values, we think of what is important to us in life. Each of us holds numerous values (e.g., achievement, security, benevolence) with varying degrees of importance.” [8]

“Because values are common to both organisational culture and individual personality, they serve as a linkage between individuals and their organisation.”[3]

An organisation is, in large part, an amalgamation of the values of its employees. An organisation's values are potentially the shared or aggregated values of the individuals in that organisation. A disconnect between these two sets of values can cause many issues, for example, when an employee values quality but the organisation values a cheap market.

“Our research suggests that three factors affect what an organization can and cannot do: its resources, its processes, and its values.”[5]

Values drive our behaviour and our decision-making which influences everything around us.

### 3. Decision Making

We all make decisions in our work. Everything we say or output affects the system, people and the shared culture. We make decisions daily, and in doing so, we utilise our cognitive reasoning and values.

“An organisation’s values are the criteria by which employees make decisions about Priorities”. [2].

In software development, programmers make decisions with every line of code. The effects of these decisions are difficult to trace. Cause and effect are not easy to view in a complex system, yet all decisions, whether by a manager, the CEO or the developer, impact the output.

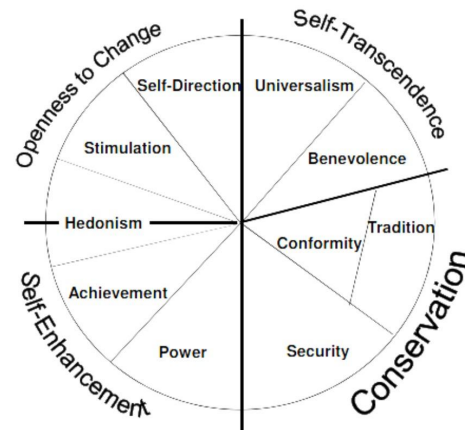
Top-down decisions suffer from gaps in knowledge of the finer details yet uncovered. Bottom-up decisions can suggest an outcome which could be less satisfactory to the top level. Making decisions is made more difficult by the need for more visibility.

How do you align a software design decision based on integrity or honesty? This is why aligning vision, strategy and culture for decision-making must be abstracted to a form easily understood as prescriptions to behaviours. Values and behaviours play a role in the broader area of abilities, skills and, therefore, organisational capabilities. Values play an important role in an organisation’s capabilities.

“Over time, however, the locus of the organization’s capabilities shifts toward its processes and values. As people address recurrent tasks, processes become defined. And as the business model takes shape and it becomes clear which types of business need to be accorded highest priority, values coalesce.” [5]

Values drive behaviour and motivate our desired outcomes.

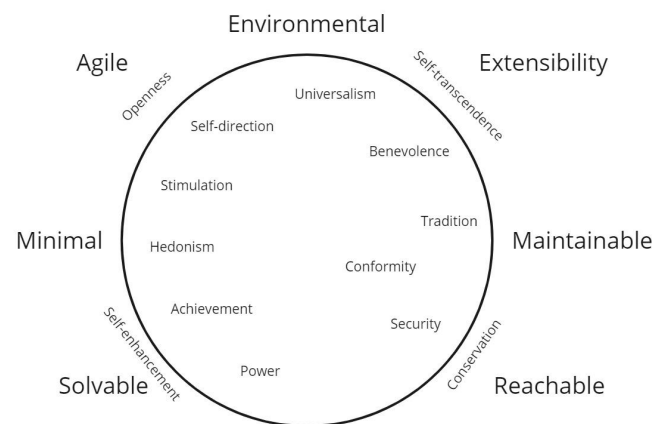
“Values refer to desirable goals that motivate action. People for whom social order, justice, and helpfulness are important values are motivated to pursue these goals.” [8]



Theoretical model proposed by Schwartz 1992

One problem with this model and evaluating individuals is that the discovery of the values requires abstraction. Questions can often be misinterpreted, and individuals can perceive these questions as intrusive. Values at the human scale are also difficult to quantify for projects, products, teams and organisational values.

AMMERSE provides an abstraction centred around our values for “work”. This depersonalises it and allows more free discussion.



Theoretical organisational model proposed here

### 3. The AMMERSE value abstraction

There is a benefit to an abstraction layer between the organisation' and individual's values. The abstraction forms a suitable barrier to prevent the discussion from becoming uncomfortable for any individual. It also serves as a language to discuss more than values themselves but the actions that values may prompt. As you will see, values bridge the gap between an organisation's and an individual's values.

The acronym AMMERSE provides seven values; Agile, Minimal, Maintainable, Environmental, Reachable, Solvable and Extensible.

An unlimited amount of questions can stem from these values. we can formulate questions about product features or an organisation's vision using these seven values.

#### 3.1 Agile (A)

Agile (A) represents the value of adaptability, responding to feedback and dealing with change. Adaptability includes honesty, stimulation, openness, and the ability to accept criticism. But when you look at code, it also applies. Adaptable code has characteristics and traits. Adopting the Agile value allows you to adopt these traits for decisions, culture, and coding.

- Should this feature be adaptable?
- Are we focused on agility?

#### 3.2 Minimal (Mi)

Minimal (Mi) is not only minimalistic but elegantly minimal. Not to be confused with "fit for purpose" or the least one could do, Minimal means more thought has gone into the design to strip away superfluous things, to maintain a clean core with no unnecessary distractions. Values such as respect, health, integrity and openness can be included here.

- What is minimal to us?
- Do I favour minimalism?

#### 3.3 Maintainable (M)

Maintainable (M) is the desire and ability to keep things in working condition and where effort goes into making them easier to maintain. Values such as self-improvement, conservation and love of history play a role.

- Is this feature maintainable?
- Do we create user-maintainable products?

#### 3.4 Environmental (E)

Environmental is about the entire context we find ourselves in, the climate and the coding conventions. It is about a system's stability and standards set by your software framework. It is the desire to conform, be part of and enjoy the larger picture.

- Is our code in line with the coding standards?
- Does our product fit into the user's environment?

#### 3.5 Reachable (R)

Reachable (R) goals are a work ethic and a pragmatic approach to doing things. Reaching a decision or completing work is paramount.

- Will this fit within the budget?
- What do we need to do to reach the goal quickly, not affording anything else?

#### 3.6 Solvable (S)

Solving (S) problems, whether local or long-term, is a value that aids the success of what we do. Solving problems shows determination, inventiveness and a range of other traits.

- Does this solve the problem?
- Does this create new problems?

#### 3.7 Extensibility (Ex)

Extending (Ex) an existing product to do a new thing is a value that draws from resourcefulness and the ability to adapt, extend and solve.

- Can anyone extend the product?
- Is extensibility part of our business model?

#### 4. A set of weighted values

Each value in AMMERSE is weighted 0..1. All seven form a Set.

Although you do not need weights to discuss and reason about your values, weights are helpful to aid in the balancing of these values. Priorities are the cornerstone of decision-making, and by creating an AMMERSE set with weights, you can create a more fine-grained view of the values.

A	Mi	M	E	R	S	Ex
				1	1	

Example: An organisation focuses on Reaching (R) Solution (S) without considering other things.

A	Mi	M	E	R	S	Ex
0.1	0.1	0.1	1	0.5	1	0

Example: A software feature which is mainly (E) and (S) but has some considerations for the other values.

#### 5. Use-Case: Understanding the organisation's AMMERSE Set

By interviewing individuals against the AMMERSE set, we can gain insight into their values and capabilities. We can ascertain the organisation's capabilities and values by grouping all the individual sets.

In one study, AMMERSE was used to build an organisational level set composed of 13 individual (employee) sets.

The individuals were all given a two-hour introduction to AMMERSE values, where they were

instructed to think and create a set for themselves. They were afforded an hour to consider their weights individually. The founder also created their set. We then looked at the founder's set against all the individual sets. Only one individual varied considerably from the rest. This individual left the company of their own accord at some point over the following year, whereas the others were still working there five years later. More research is needed, but the study showed alignment. Since it was a small business, it is thought that the founder, having hired like-minded people and been in touch with them daily, greatly influenced how they aligned.

When presented with questions on how they found the experience, all involved found it to be a better way of uncovering their values. A close second benefit was said to be how it seemed to align their views or understand each other better.

#### 5.1 Strengths, Limitations

AMMERSE has been used extensively for aligning vision on agile software projects within my company settings. Although I do not count this as formal research, it has helped me fine-tune the system.

I have taught AMMERSE for over 15 years to various software teams. With as little as two hours of training, teams and individuals easily discuss and reason about their interpretations and weights of AMMERSE values.

Adding an AMMERSE set to feature discussions allowed developers to discuss tradeoffs pragmatically.

I found that, without AMMERSE, over-engineering and under-engineering were much more likely than when the team used the value system.

I evaluated under or over-engineering as the technical things developed for a feature that was not necessary for the short or long term.

Failures have also occurred, leading me to believe that AMMERSE can only work within environments that value people who think and make decisions as part of their work. Used with an outsourcing

company to help with “strategy to implementation”, I found AMMERSE could not penetrate the mindset of the individuals working under the command and control paradigm. They did not have any practice thinking for themselves but wanted requirements and decisions made for them.

## 5.2 Future Studies

I am currently evaluating how AMMERSE can be used with software freelancers who have never worked together before and have mixed skills and knowledge in agile practices and no understanding of the business.

A framework for evaluating values and how they affect individuals, teams, and organisations have yet to be created. Evaluating AMMERSE in differing contexts requires us to create an evaluation framework.

The AMMERSE system depends on values driving behaviour, influencing our decision-making process. Studies into this have largely concluded that, yes, values drive decisions.

“The aims of this research were to explore whether values exert an influence on rational and irrational decision-making when propositions are not overtly values laden, and to ascertain whether any such influence betrayed both the familiar circular/sinusoidal patterns and linear/hierarchical patterns consistent with an evolutionary interpretation of Schwartz’s (1992)[7] system of values. Our findings suggest that the answer to both questions is yes: values play a role in system..” [6]

## 6. Conclusion

The values in AMMERSE allow organisations and individuals to discuss and reason about values at a valuable level of abstraction for work. Although AMMERSE has been used for over 15 years with all kinds of developer configurations, research is required to ascertain how effective it can be in various controlled settings.

By asking, “am I more Agile (A) than Environmental (E)?”, or “are we as an organisation more Maintainable (M) than Reachable (R)?”, we can learn more about our collective values. By communicating our values, or the behaviours we want in the “work”, we can facilitate greater coherence.

Use AMMERSE for

- discussion; learn more about the organisation or feature from a values-oriented point of view
- As organisation values, a set with weighted values
- strategy; create a set with weighted values that expresses the strategy
- As decision-making tool; where this feature should not be extensible or adaptable, but this other feature should be
- Every team can communicate their values
- Every discussion can involve values

AMMERSE benefits

- A language of value
- A deeper understanding of the organisation
- A deeper understanding of teams
- Expression and alignment of values
- A metric of values to measure gaps
- A metrics of values to measure states

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