

# **A Critical Review of** "Definition of Goals"

Prosjekt-, program- og porteføljeledelse er et omfattende område! Og utviklingen skjer raskt. Det gjøres ulike erfaringer inne ulike områder. Og selvsagt er vi ikke alltid enig med hverandre! NFP ønsker debatter om ulike erfaringer og ulike syn velkommen!

AV TOM GILB

Marc and I share some values regarding requirements specification. But I have some problems with some of his remarks, and some suggestions for more-advanced thinking on requirements. One value we share is quantification of (some) requirements:

"Project objectives are the establishment of requirements which are as quantified as possible and which must be met in order for a project to be considered successfully completed." (Marc W)

Project requirements are of many types, and some of them do not admit to quantification, because they are binary (present or not).

See Fig-1. So all performance and resource/cost requirements can and should be quantified. But (Function/Deign/Condition) constraints. Function Requirements are not normally quantified. They are binary. Present or absent.

....A complete definition

"Conflicts of objectives are to be avoided.

of objectives requires the identification of all relevant stakeholders. which can lead to conflicts of interest. Conflicts of objectives are to be avoided, i.e. the different project objectives must fit together."

You cannot avoid conflicts of objectives, all objectives are inherently in conflict with each other, both for the common budget, and because they just conflict with each other, security and usability are examples.

What Marc might have said is the following:

- 1. You should not specify a performance (value, quality) goal level which makes it impossible to reach reasonable and necessary goal levels for other critical objectives.
- 2. You need to find a reasonable balance regarding performance goal levels so that minimum

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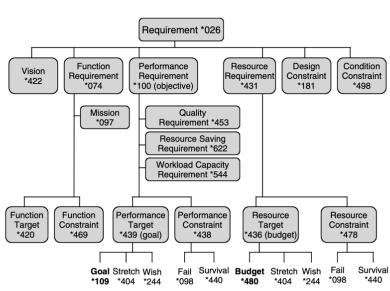


Figure G20 Requirement Concepts.

requirements (tolerable or worst case levels) can be delivered and maintained. And that reasonable success-goal levels, for all critical objectives, can be reached.

"An absolute prioritisation of the goals is recommended. ..... An absolute prioritisation across all goals in order to be aware of one's own priorities is helpful"

levels will be measured before requirements exit to next process by Specification Quality Control [3] 3. The Defect Density Level of the Requirements for exit level should be less than 1.0 deficits per page.



'delimitation of benefit and nonobjectives' (MW):

The term 'absolute prioritisation' is not defined, and I can think of many bad interpretations, particularly I think of well-known methods of giving numeric weights (as in Balanced Scorecard) in advance. My deeper view of prioritization is in a paper. I believe that you cannot cost effectively do any up front absolute prioritization, because there are far too many dynamically changing variables and unknowns, which can destroy your intent.

You need to compute your residual priority step by step, based on continuous measurements of budgeted resources consumed, and of performance-value levels delivered. Detail on this process is in my Value Planning book.

"In the case of objectives, one must always pay attention to the combination of SMART objectives, completeness of the objectives and, above all, the delimitation of benefit and non-objectives."

Well this is confusingly vague. Let me try to rephrase it and give more meaning.

- 1. Requirements must meet the defined Rules for Specification for your organization. [3]
- 2. The adherence to defined requirements quality

Definition of all these 3 concepts is necessary, and not provided. The method to 'delimit' and the meaning is missing. So instead of guessing, we need more information from the author. Otherwise it is meaningless.



"In addition to the magic triangle, the aim is to distinguish between non-targets, benefit targets and now consciously the negative

benefit targets as damage and to provide resource planning optimised for all organisations involved."

Wow, magic triangle. What is that (not the maths concept?)? Does he mean the Iron (Project Management) Triangle? See Fig-2.

Assuming he does mean this, then I am of the opinion that it is a false and misleading concept. It is clearly possible to reduce costs and improve quality. This is the well known 'design to cost' engineering paradigm.

See Fig-3 smart is nice idea but not the smartest requirements clarification idea.

So, some comments on SMART, a nice simplification, but not the best industrial strength methods.

#### Why?

#### 1. Specific/Simple

We must not simplify for its own sake. You can lose critical detail. It should be as simple as possible, but no simpler than what is needed for the purpose at hand. If you have a gigantic complex global multi decade project you might need a page or 20 sub specifications to manage one of the top ten objectives.

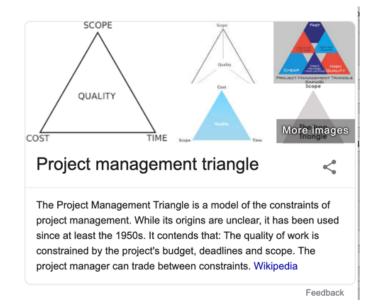
## 2. **M**easurable/Operationalized/Quantified

Yes, for all the variable, performance and costs. Most important initial is quantification, so that we have a clear common understanding of the objective. The defined scale of measure needs to reflect the stakeholder value. It must not be just something that unimaginative people find they can quantify (the easy metrics). In my practice I also have a lot of sub-dimensions in each scale (who, where, what dimensions) in order to model reality, and to help us decompose the problem to the most critical areas.

#### 3. Achievable/attainable

When setting value levels, it is extremely difficult to know what is really attainable. This is a matter of latest state of the art technology which could be unknown, or unknown to the requirements specifier. It is dangerous to back off from levels of performance you would like, but do not yet know how to reach, or more complex to reach together with all other objectives and resource constraints. So what you have to do is ask for what will be cost effective if you get there, and hope some imaginative designers can find a way to do it.

In practice, with agility and incremental delivery and feedback and adjustment, you will get information about what is really possible as you move along. No-one knows enough to determine such things in advance of design, and in advance of implementation and measurement.



4. **R**ealistic/Relevant ... Objectively attainable Same comment as above. You cannot fix these things as initial requirement specification. You specify what you want, and how cost-effective various levels would be. But you have to dynamically adjust things, as reality reveals itself stepby-step. Agile as it 'should be'.

SMART ideas belong to big-bang waterfall, not Agile Incremental value delivery.

## 5. **T**imeable/Timely

The delivery time of specific numeric levels of value and qualities is of course important. The earlier the better. For this reason I teach that we need to decompose the larger objective into smaller earlier deliverables for the most critical people-situations-places [7]. This is the agile approach. The 'timely' here (MW) smells of one specific date for everything at once. We need a curve of early frequent prioritised deliveries.



"Thus, the Six Interdependencies are a combination of already known, previously independently considered influences and now

additional consideration of damage and cross-organizational resource consideration together:

Specific/Simple	Simple, understandable, concrete
Measurable	Operationalized, quantified
Achievable/attainable	Achievable, socially accepted, worthwhile
Realistic/Relevant	Objectively attainable
Timeable/Timely	Concretely planned in terms of time

See Fig-4. Widmanns "six interdependencies". is a random set of interesting aspects of projects, missing definition, and missing specific mature and useful actions, and missing any case study proof of concept, and missing lots of other equally interesting concepts (qualities, risks, architecture, maintenance costs. just to reel off a few).

of people seem to prefer oversimplification that leads to project failure. The failure rate tells us that we need to try harder, be smarter, and it is not at all easy to succeed in high tech. You might have to abandon comfortingly simple sound bite methods.

## **Summary**

We need proven methods and information to reduce the alarmingly high failure rate of high tech projects. The knowledge does exist, but a lot (Red anm.: NFPs rolle er å formidle praktiske erfaringer fra en gitt kontekst. Dette kan noen ganger "butte" med teoriene)

