

“Principle-Based Project Management”: The Truth, the Whole Truth and Nothing but the Truth...?¹

Dr. Paul D. Giammalvo

While I REALLY appreciate so many “big names”^{2 3} in Project Management starting to provide both explicit and implicit acknowledgment and support for the critical role that asset management and asset managers play in the world of project management, this closing statement by Alan Stretton that “it helped me understand a little more about the nature of various types of assets that are relevant to the project and allied contexts, and I hope it may do the same for at least some others”⁴ along with several debates on LinkedIn alerted me to other important considerations or basic fundamental principles or “TRUTHS” that I have not covered as adequately or completely as I could or should have, leaving many apparent “gaps” in the understanding of the all the “actors” in project management, and those 8 “TRUTHS” are:

Truth #1 - Projects, whether viewed from the perspective of a CONTRACTOR or as an OWNER or even in our day-to-day PERSONAL lives, are undertaken for two reasons and two reasons only, and those are:

- a. To FIX (or in the case of government regulations) AVOID a real (or perceived) problem or;
- b. To EXPLOIT a real (or perceived) opportunity.

Truth #2 - It “takes ASSETS to CREATE new or more assets”- that assets are not “created, acquired, updated, expanded, maintained, repaired and eventually disposed of” out of thin air but require the initial application of organizational assets to support or “kick-off” the process and sustain the process over the entire life SPAN of both the project and the life SPAN of the Asset the project was undertaken to create.

Truth #3 - For an OWNER organization, project management is generally NOT a “core competency” but nothing more than a “necessary evil”⁵- a process to be tolerated or endured”

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² Giammalvo, P.D. (2021). The Bigger Picture: Project Life Cycles from a Broader, RealWorld Perspective; Commentary, PM World Journal, Vol. X, Issue VI, June. <https://pmworldlibrary.net/wp-content/uploads/2021/06/pmwj106-Jun2021-Giammalvo-the-bigger-picture-commentary.pdf>

³ Giammalvo in Wideman “Project Management Caught in a 1960s Time Warp parts 1 and 2 http://www.maxwideman.com/guests/time_warp/intro.htm

⁴ Stretton, A. (2021). An exploration of assets and projects: Types of assets, and project deliverables as assets, in an organisational context, PM World Journal, Vol. X, Issue X, October. Available online at <https://pmworldlibrary.net/wp-content/uploads/2021/09/pmwj110-Oct2021-Stretton-assets-and-project-deliverables-in-organisational-context.pdf>

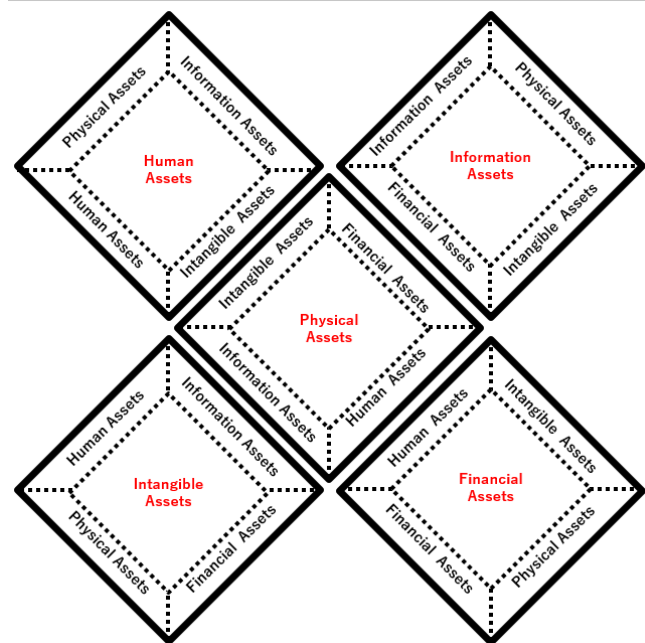
⁵ Dictionary of Idioms (N.D.) something unpleasant that must be done in order to achieve a goal or objective Source: theidioms.com This phrase goes back to the ancient Greek times. The first usage of the phrase “necessary evil” was with reference to Marriage. Source: theidioms.com

until the ASSET the OWNER or SPONSOR needs to "solve or avoid the problem" or "exploit the opportunity" is completed and ready to be put in service. For OWNERS, a project is a COST or INVESTMENT center. The only entities who see projects as PROFIT centers are the CONTRACTORS, their SUBCONTRACTORS, CONSULTANTS, VENDORS and SUPPLIERS. Evidence supporting this can be seen by the number of OWNER organizations, who, given a choice, prefer to OUTSOURCE "project management" to CONTRACTORS. While this has been a common practice in construction, medicine, and entertainment, it has yet to gain widespread acceptance in IT and New Product Development, at least up until now.

Likewise, knowing that used in the context of integrated "asset, portfolio, operations (program) and project management" that "assets" can be used synonymously with "resources," and we also know there are five generic asset classes or categories:

- 1) **Human Resources**- Obviously enough, these are a key element of any project, not only in the INPUT side of the equation (Initiation and Planning) but also on the "Execution" (solving the problem or exploiting the opportunity) and also on the OUTPUT side of the equation (Closing processes)
- 2) **Information or Knowledge Resources**. Likewise, Informational or Knowledge Resources also permeate the entire process, from start to finish.
- 3) **Physical Resources**- Worth noting is these do not only include the tools, physical plant and the equipment being used, but for our software colleagues, according to Investopedia, "while software is not physical or tangible in the traditional sense, accounting rules allow businesses to capitalize software as if it were a tangible asset."⁷
- 4) **Financial Resources**- Again, this should be patently obvious that without money to pay salaries, pay the electricity and heating bills, not to mention buying the materials and equipment, that no project can be undertaken either by an OWNER or CONTRACTOR without financial resources. This is the reason why most OWNERS require CONTRACTORS to post PERFORMANCE BONDS, ensuring they have the financial horsepower to undertake and finish the project.

Figure 1 - Asset/Resource Categories⁶



⁶ Adapted from PAS 55.2, Figure 2- <http://hadidavari.com/wp-content/uploads/2018/03/PAS-55-2-2008.pdf>

⁷ Investopedia <https://www.investopedia.com/ask/answers/09/computer-software-intangible-asset.asp>

- 5) Lastly, we have **INTANGIBLE Resources**, which is the “brand image” important to both OWNERS and CONTRACTORS alike. How many of you would not be proud to show that you worked on the Burj Khalifa as either a CONTRACTOR or OWNER? Likewise, how many of you would be eager to have your names attached to the recent US troop withdrawal from Afghanistan or the Wuhan Laboratory? Never forget that in project management, “you are only as good as your last project.”

In Figure 2, we can begin to understand and appreciate just how closely integrated the need for all five categories of ASSETS are as being essential as the ENGINE or “ENABLERS” underlying ALL project management processes. How so many professional societies have managed to overlook or ignore this essential relationship remains a huge mystery. Worse yet, judging by the resistance on Linked In debates, it doesn’t seem likely to change for the foreseeable future.



Figure 2 - Relationship between Assets (Resources) and Project Management Processes

Assuming the “Common Sense” explanation being illustrated in Figure 2 resonates with enough supposed “thought leaders,” the next question is “how much longer are we going to do the same things over and over again yet expect different results,” which is how Einstein defined insanity? When are all you “thought leaders” going to stop THINKING (and TALKING) and start ACTING?

So what do we need to do? The first thing is to admit that Asset Management and the Asset Manager play an essential and important role in decision-making.

Then we need to follow the lead of “big oil” going back to around 1955 and adopt the fully integrated Asset, Portfolio (of Assets and Projects) Operations (Program) and Project Management Methodology first made public by either Esso or Diamond Shamrock Oil and attesting to the fact it works, is still in use by all the major International and nearly all National Oil and Gas companies along with nearly all infrastructure and utility companies around the world.⁸

So if so many of these global organizations are already using this tested and PROVEN approach, how much longer will it be before PMI, APM/APMG, IPMA et al. join AACE with their [Total Cost Management Framework](#)⁹ and the Guild of Project Controls, with their [Compendium of Best Tested and Proven Practices](#)¹⁰ and adopt a methodology that we know for a FACT works? How much longer are we going to ignore what Einstein told us about “doing the same things over and over again and expecting different results”? Or Henry Ford, who told us, “If you always do what you’ve always done, you will always get what you always got”?

MORE FUNDAMENTAL TRUTHS TO MOVE US FORWARD

Where do we need to start if we want to FIX what is clearly a broken system?

Truth #4 - Working “top-down,” we need to recognize what Sun Tzu told us 2500 years ago that there are four levels of decision makers in any organization and that project managers are or should be responsible for making TACTICAL decisions. That STRATEGIC decisions are made by C-Level and Asset Managers and NOT project managers.

⁸ To see the names of those OWNER, CONTRACTOR and CONSULTING organizations that have adopted an Asset centric model go HERE <https://theiam.org/corporate-directory/> and scroll down the list.

⁹ AACE Total Cost Management Framework (TCMF) <https://web.aacei.org/resources/publications/tcm>

¹⁰ Guild of Project Controls Compendium of Best Tested and Proven Practices
<http://www.planningplanet.com/guild/GPCCAR-modules>

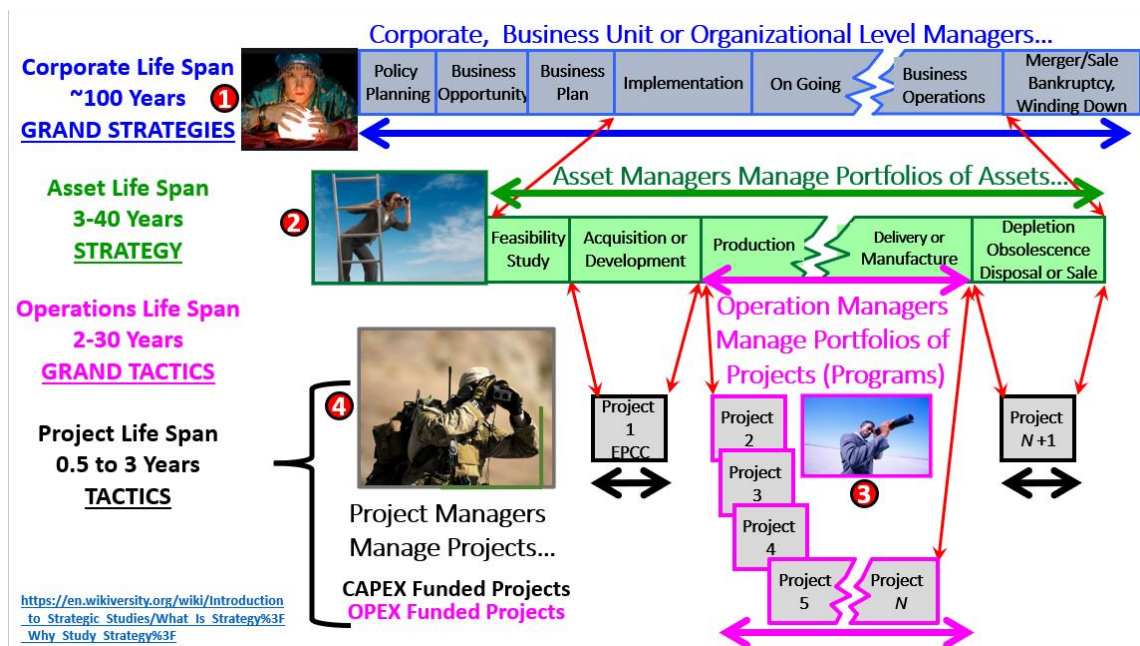


Figure 3 - [Four Levels of Decision Making](#)¹¹ (Adapted from Max Wideman, circa 1985)

Truth #5 - As Field Marshall Helmut von Moltke told us back around 1865 that “no plan survives first contact with the enemy,”¹² and what General Eisenhower reaffirmed more recently about, “plans being useless, but planning is essential”¹³ leads us to embrace and adapt another military concept and that is [CENTRALIZED PLANNING and DECENTRALIZED EXECUTION](#)¹⁴.

¹¹ Four Levels of Strategic Decision Making

https://en.wikiversity.org/wiki/Introduction_to_Strategic_Studies/What_Is_Strategy%3F_Why_Study_Strategy%3F

¹² Helmut von Moltke- (1865) “On the Art of War” <http://www.strategybydesign.org/von-moltke-the-elder-on-strategy>

¹³ Dwight Eisenhower- https://www.brainyquote.com/quotes/dwight_d_eisenhower_164720

¹⁴ Docauer, Alan (2014) “Peeling the Onion- Why Centralized Control / Decentralized Execution Works” https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-28_Issue-2/F-Docauer.pdf

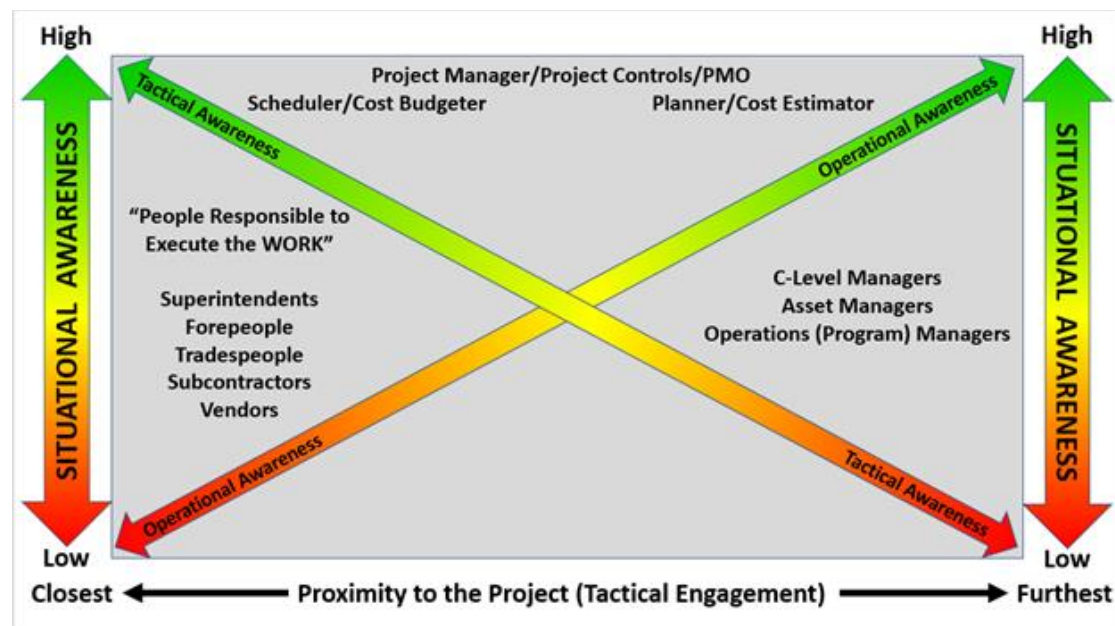


Figure 4 - [Situational Awareness Matrix for Projects](#) (Adapted from Lt. Col Paul Maykish)

Given we already know how important RESOURCES (=ASSETS) are to the PROCESSES of project management and given we know that "Organizational Assets" are "owned and controlled by FUNCTIONAL or LINE MANAGERS, then we have to ask ourselves, "Who is it who knows BEST what is REALLY happening on the project"? Not what some planner/scheduler sitting in the home office THINKS should happen but what is REALLY happening and hopefully the answer to that question is ONLY those people on the FRONT LINES who are actually DOING THE WORK have the SITUATIONAL AWARENESS about what they are experiencing for challenges and more importantly, what RESOURCES or ASSETS they need to meet and overcome those challenges?

And that information is needed in real-time, NOW, not tomorrow, not next week or next month. NOW.

So given how few of today's project managers have all the required TECHNICAL skills, doesn't "COMMON SENSE" dictate that the role of today's PROJECT MANAGER and PROJECT TEAM should be not in trying to direct or control those responsible for doing the work but for serving as a FACILITATOR and COMMUNICATOR, keeping those ASSET MANAGERS appraised of the trials and tribulations being experienced by those on the "front lines" ("Tactical Awareness") and negotiate and facilitate obtaining the RESOURCES needed by those doing the work from those ASSET MANAGERS who own and control those ASSETS? ("Operational Awareness").

Explained another way, doesn't it make sense that the role of project managers, project controls and PMO's should be to keep the OPERATIONAL DECISION MAKERS who control the Assets updated in real-time on what is happening on the ground and keeping the TACTICAL DECISION MAKERS who are responsible to EXECUTE what ASSETS are available for them to use to avoid risks or exploit opportunities? And all this in as close to "real-time" as possible?

Truth #6 - When looked at from the perspective of “Projects as an Asset Delivery System,” helps us appreciate that from an OWNER’S point of view, they have a RANGE of potential options to choose from, ranging from OPERATIONS on one end of the spectrum to “Trial and Error” or the “Scientific Method” (which is commonly known today as “Agile” in all its combinations, permutations, and incarnations) at the other end of the spectrum.

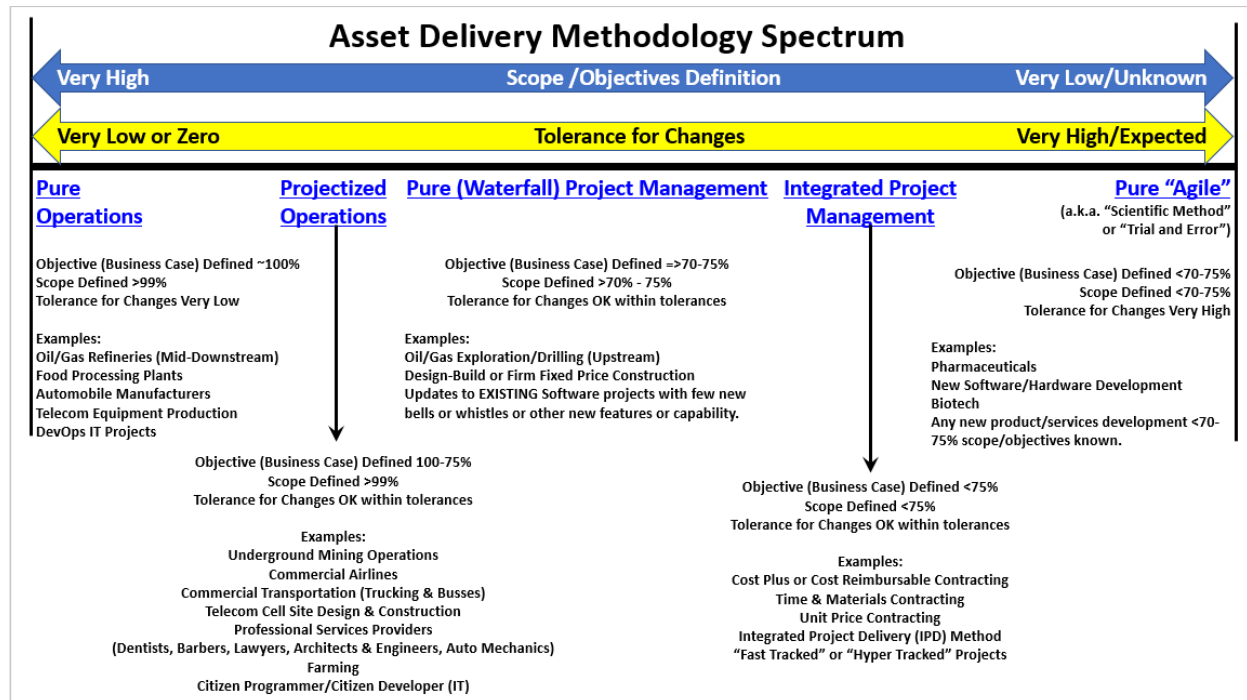


Figure 5 - Asset Delivery Options from the OWNERS perspective.¹⁵

Figure 5 helps us grasp that when looked at from the OWNER’S perspective showing what options they can choose from for ASSET DELIVERY systems, helps bring “Common Sense” to the never-ending debates on “Waterfall” vs. “Agile.” By stepping back and looking at things from the higher perspective, we can see there are five generic options including:

- 1) Operations
- 2) Projectized Operations
- 3) Classic Waterfall
- 4) Integrated Project Delivery (IPD)
- 5) “Trial and Error” or “Scientific Method” known today as “Agile.”

And the determining factors applied to select which “Asset Delivery System” is “best” or “most appropriate” is based upon 1) How much scope or objectives are known at the start or outset of the project AND 2) How tolerant are the key stakeholders (customers and asset or operations managers) to accept or even expect changes to happen.

Given that this fully integrated Asset, Portfolio (of Assets and Projects), Operations (Programs)

¹⁵ Giammalvo, Paul D (2019) “Agile is NOT a subset of Project Management” <https://pmworldlibrary.net/wp-content/uploads/2019/03/pmwi80-Apr2019-Giammalvo-Agile-is-not-a-subset-of-project-management.pdf>

and Project Management Methodology has been published and has been in use since at least 1955, and was implicitly recognized by none other than R. Max Wideman around 1985, (see Figure 3) it seems incredible that no one has taken up the cause and argued for a MERGER or COLLABORATION between ISO 55000 and ISO 21500 ([it needs cleaning up first](#))

Figure 6 shows the model we have developed and are proposing that is based directly or indirectly on our 30+ years of experience in the oil, gas and mining sectors combined with first-hand knowledge and experience as both owners and contractors where our own money is on the line if the project or the Asset it created fails to deliver a favorable ROI or ROA.

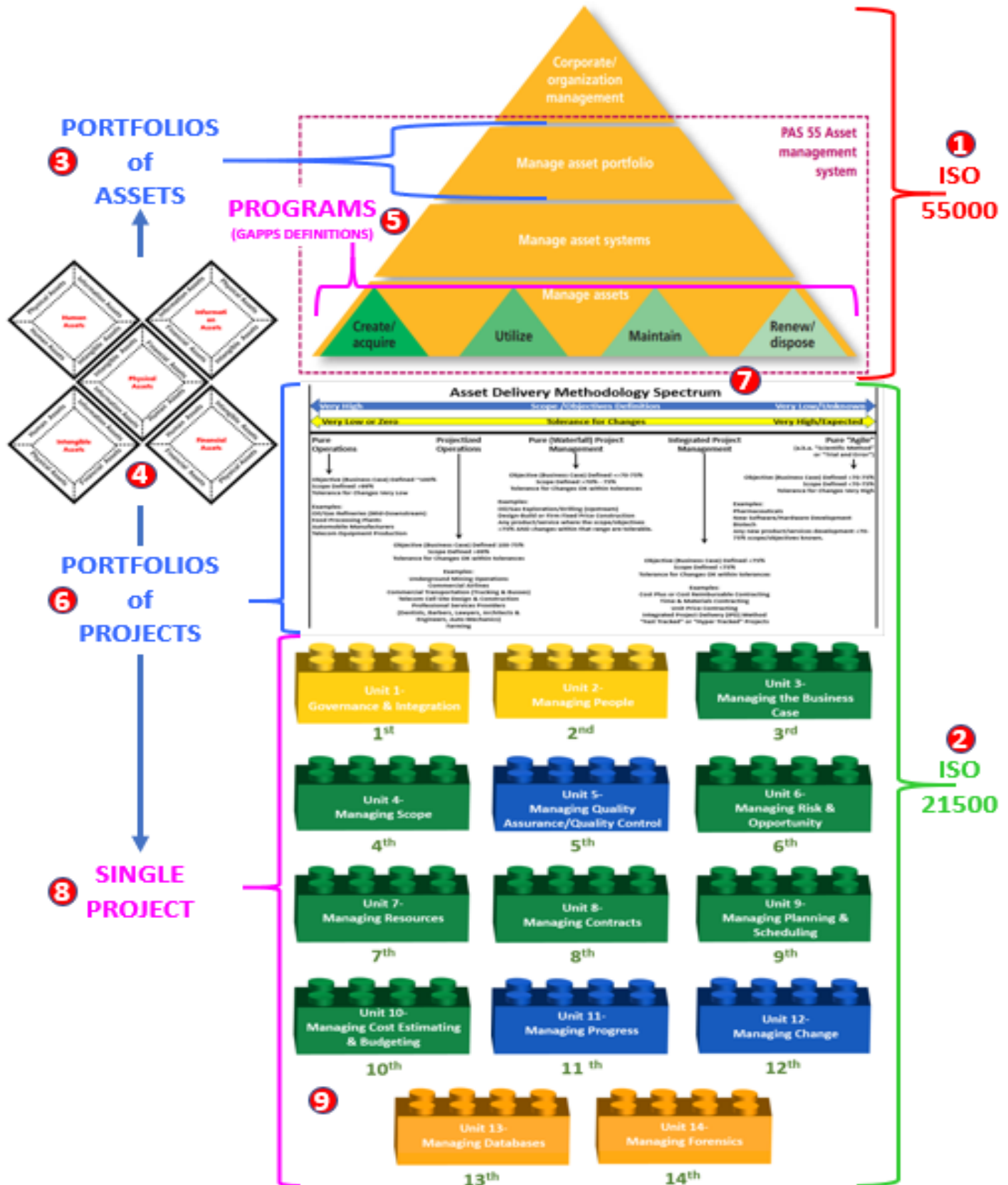


Figure 6- [Fully Integrated Asset, Portfolio, Program and Project Management Methodology](#)¹⁶

To download a LEGIBLE B3 size suitable for plotting or printing, click [HERE](#)

Truth #7-

To close with **Truth #8**. For over ten years Glenn Butts from NASA and Prof. Bent Flyvbjerg have not only identified why projects continue to fail with such alarming regularity but have been telling us what those root causes are, and STILL, we continue to ignore them. How much longer are we willing to keep our heads buried in the sand, given how many countries are effectively bankrupt?

What are the ROOT CAUSES...??

- 1) Humans have been “initiating, planning, executing, controlling and closing projects in construction, entertainment and new product development sectors for 6000+ years.
- 2) In that time, SURELY we have or at least should have learned WHAT to do and HOW to go about doing it so the project finishes on time and within budget.
- 3) There is no shortage of sound research showing us HOW or WHY projects fail, having been identified by Glenn Butts (NASA) over 10 years ago <https://is.gd/Mzo3rz> and Bent Flyvbjerg (Oxford) <http://bit.ly/2wDnh4e>; <http://bit.ly/2eEugA2> and <http://bit.ly/1y0JDdu> and EC Harris/Arcadis Annual Construction Dispute Review- <https://is.gd/giiuW8>

Stairway to Success

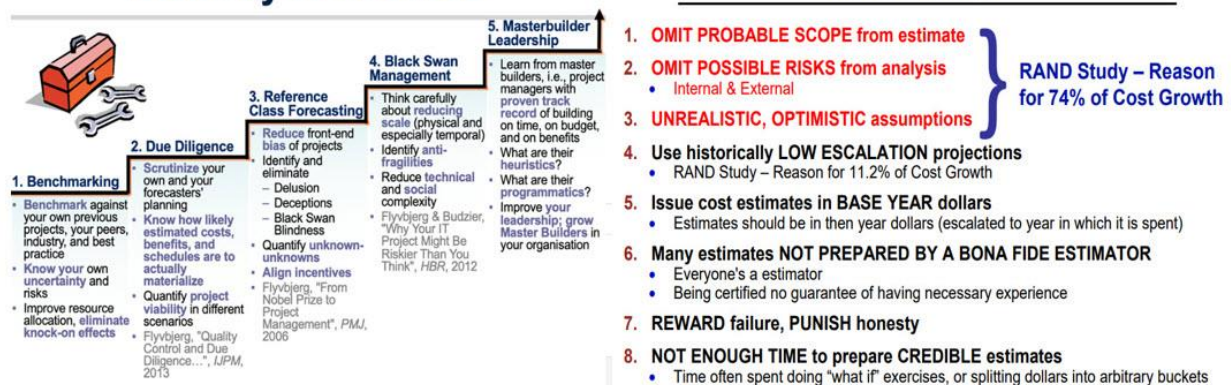


Figure 7 - ACTIONABLE ITEMS REAL LEADERS can INITIATE to FIX THE PROBLEMS

To try to make this as “real” as I can to as many people as possible, and because there are so many people today who are using the project management processes to deliver KNOWLEDGE or INTANGIBLE rather than PHYSICAL assets, it is worth illustrating how, even for professional services providers such as doctors, lawyers, accountants as well as many operational project managers such as airline pilots, bus and truck drivers as well as the traditional tradespeople whose roots date back to the Guilds of the 11th to 16th Century in Europe require INPUT ASSETS to create OUTPUT ASSETS for project, program and portfolio management.

¹⁶ Giammalvo, P.D. (2021). The Bigger Picture: Project Life Cycles from a Broader, RealWorld Perspective; Commentary, PM World Journal, Vol. X, Issue VI, June. <https://pmworldlibrary.net/wp-content/uploads/2021/06/pmwwj106-Jun2021-Giammalvo-the-bigger-picture-commentary.pdf>

Profession or Trade	Integrated Asset, Portfolio, Program and Project Management Examples				
	Input Asset Class(es)	Single Project	Program (See GAPPs Definition)	Portfolio	Output Asset Class(es)
Accountant	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)	Each years tax returns or audited financial statements for a single client	Multiple years tax returns or audited financial statements for the same single client	The full suite of professional services offered by the Accountant. (I.e. Tax Filings, Audits, Financial Planning, Succession Planning)	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)
Architect/ Engineer	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)	Each unique design produced for a single client	More than one project for the same client	The combined work effort showing all the projects done regardless of client	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)
Commercial Airline Pilot/Bus/ Truck Driver	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Aircraft/Vehicles and support facilities) Information (Safety Record)	Each flight or trip between City A and City B or stops on a delivery route	All the flights, stops, or deliveries made in a single day, week or month	All of the aircraft types or classes of vehicles the Pilot in Command or Driver is licensed to operate	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Aircraft/Vehicles and support facilities) Information (Safety Record)
Lawyer	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)	Each unique case tried for a single client	More than one case tried for the same client	The full suite of professional services offered by the Lawyer. (I.e. Family Law, Tax Law, Criminal or Construction Law)	Knowledge- (Metacognitive, Procedural, Conceptual, Factual) Physical (Office and Equipment) Intangible (Reputation)
Electrician/ Plumber/ Carpenter	Knowledge- Metacognitive, Procedural, Conceptual, Factual Physical (Tools and Equipment) Intangible (Reputation)	Each contract or work order performed for a single unique client.	More than one contract or work order for the same client	The full suite of professional services offered by the Electrician. (I.e. Residential, Commercial, Industrial, Oil, Gas & Mining)	Knowledge- Metacognitive, Procedural, Conceptual, Factual Physical (Tools and Equipment) Intangible (Reputation)

Figure 8 - “Added Value” Professional Services Contribute Through Project, Program and Portfolio Management

Looking at Figure 8, take 5 minutes to reflect on just how reliant project, program, and portfolio management is on the INPUT ASSETS are and how APPLYING the five Asset (= RESOURCE) Categories to deliver their services using project, program and portfolio management approaches, just how much ADDED VALUE (i.e., Return on Assets or Return on Investment) that they generate in the OUTPUT ASSETS they create.

To conclude, “old-timers” like Alan Stretton, Bob Youker and R. Max Wideman and even us younger “old-timers” like David Pells and myself only have a finite number of years left to “transfer technology” to the next generation and with AI fast taking over much of what we do, NOW is the time to fix what is broken before we start to automate a broken, ineffective, or inefficient system and cause even MORE problems. IF “Principle-Based Project Management” really is the “next step,” the place to start is by recognizing that Asset Management is an integral element of Portfolio, Program and Project Management and ensuring the roles and responsibilities of the Asset Manager are an integral component of whatever model or methodology you create or support.

About the Author



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He is also active in the Global Project Management Community, by playing a “thought leadership” role for the Association for the Advancement of Cost Engineering International, (AACEI) <http://www.aacei.org/> since 1991; He has also been active in two IPMA member organizations: The Green Project Management Association (GPM) <http://www.greenprojectmanagement.org/> where he served on the Certification Board of Directors for two years and the American Society for the Advancement of Project Management <http://www.asapm.org/> for which he served for four years on the BoD as Director of Marketing. He also sat on the Board of Directors of the Global Alliance for Project Performance Standards (GAPPS), www.globalpmstandards.org, Sydney, Australia and is active as a regional leader. Currently, he is a compensated consultant to the International Guild of Project Controls. <http://www.planningplanet.com/guild> as the primary author of their “Compendium and Reference” as well as the chief architect of their competency-based credentialing program. <http://www.planningplanet.com/guild/certification>

He has spent 35 of the last 50 years working on large, highly technical international projects, including such prestigious projects as the Alyeska Pipeline and the Distant Early Warning Site (DEW Line), upgrades in Alaska and the Negev Airbase Constructors, Ovda, Israel and the Minas Oil Field in Rumbai, Sumatra. His current client list includes Fortune 500 major telecommunications, oil, gas and mining companies plus the UN Projects Office and many other multi-national companies, NGO organizations and Indonesian Government Agencies.

In addition to 45+ years of hands-on field experience, Dr. Giammalvo holds an undergraduate degree in Construction Management, his Master of Science in Project Management through the George Washington University and was awarded his PhD in Project and Program

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