

FOLLOW ON ACTION ITEMS FOR CONSIDERATION

in response to

“Capturing Project Management Best Practices”¹

(by Dr. Harold Kerzner and Dr. Al Zeitoun, PM World Journal- Vol. X, Issue XII – December 2021)

Dr. Paul D. Giammalvo

OPENING STATEMENT

Speaking as lifelong practitioners and not as academics, while we (note while I am the primary author, our team here at PTMC reviewed and contributed to this article) were truly thrilled and encouraged to see such well known and highly regarded names like Dr. Harold Kerzner and Dr. Al Zeitoun from IIL refuting the standard advocated by PMI since the 1996 PMBOK onward of “adopting those practices, tools and techniques “used ON MOST PROJECTS, MOST OF THE TIME” (meaning at best, AVERAGE practices) and coming out in SUPPORT of “Best Tested and PROVEN” practices, we felt this was a major move forward.

HOWEVER, what disappointed us was that while Dr. K and Dr. Z (and presumably IIL?) now ADVOCATE for “Best Tested and PROVEN” practices,” why didn’t they at least put forward EXAMPLES or SUGGESTIONS so we can take the next step, which is to FIX what is very clearly a “broken system”?

How do we KNOW the system is broken?

As starters, everyone needs to look at the comments posted by current and past employees of [PMI on Glassdoor](https://www.glassdoor.com/Reviews/Project-Management-Institute-humiliating-Reviews-EI_IE256669_0_28_KH29_40.htm?sort.sortType=OR&sort.sortAscending=true&filter.iso3Language=eng).² That alone will tell you that PMI is a rudderless ship—an organization that fails to exemplify its own Code of Ethics, running the organization using the tools and techniques they advocate we use as practitioners but ignore themselves. (“Do as we say, not as we do?”- Sound all too familiar today?)

More evidence can be found in recent research from KPMG-IPMA from Australia, which has long been a PMI stronghold that indicates that after ~53 years of PMI’s global influence, with over a million “disciples” preaching the “Gospel of the PMBOK “that only 42% of projects finish on time and worse yet, only 40% finish within budget”³, which makes the PMI “average” standard of those practices, tools and techniques “used on most projects, most of the time” an even LOWER value? Worse yet, even PMI has tacitly admitted their PMBOK/PMBOK Guide, in the 35 years they have been publishing it, has

¹ How to cite this article: Giammalvo, P. (2022). Follow on Action Items for Consideration in response to “Capturing Project Management Best Practices”, *PM World Journal*, Vol. XI, Issue I, January.

² Glassdoor “Humiliating Reviews of PMI” https://www.glassdoor.com/Reviews/Project-Management-Institute-humiliating-Reviews-EI_IE256669_0_28_KH29_40.htm?sort.sortType=OR&sort.sortAscending=true&filter.iso3Language=eng

³ KPMG/IPMA 2020 Survey- <https://home.kpmg/au/en/home/insights/2020/08/australian-project-delivery-performance-survey-2020.html>

resulted in no measurable improvement in project success rates, explaining why they largely abandoned what they had advocated in favor of a PRINCIPLE based BoK in the 7th Edition? As we will explore later, while we have long been outspoken critics of PMI, we are also challenging the PMBOK Guide 7th Edition as being just as flawed as the previous editions. But trying to be proactive, and given our only loyalty is to continuously improving the practice of project management and not to any society or professional organization, we are willing to summarize what we, as practitioners, see as being “broken” and provide SUGGESTIONS that we are confident will go a long way towards FIXING the problems before we start to implement AI and Automation, which has already started.

Thus, we are offering this paper as a CHALLENGE to Dr. K, Dr. Z, IIL and other “Thought Leaders,” including Frank Saladis, Antonio Nieto-Rodriguez, Nader K. Rad, PMP Founder Lee R. Lambert and any other of the “PMI Cultists” who post on Linked In, apparently living in a world of denial, pretending that all is well in PMI Land in general and the practice of project management specifically, when there is no science or empirical evidence to support these beliefs. (Maybe PMI needs to hire Fauci?)

We conclude this paper by providing 10 ACTION ITEMS that we as practitioners and those organizations we have chosen to represent us need to fix a BROKEN SYSTEM, something that must be done before we can start AUTOMATE or apply ARTIFICIAL INTELLIGENCE to the PRACTICE of project management.

“Best Tested” vs. “Best Tested and PROVEN” practices

In their article, Dr. K, Dr. Z and IIL start by talking about “best tested” practices and then go on to define “best practices” “as a method, technique, or process that is considered superior to other ways of performing the same things and provides the desired outcome with fewer problems and unforeseen complications.” Yet, they provide no references to support this definition. The problem with this definition is without a STANDARD against which to measure or benchmark it, that definition becomes so subjective as to mean anything to anyone. (A major problem we find on much of social media today, especially on Linked In- see quotes below by Umberto Eco)

The only way to validate “best practices” is by adding “and PROVEN” (a point Dr. K and Dr. Z also made), meaning there has to be substantiating evidence showing proof that the process, tool or technique is “superior to other ways of performing the same things and provides the desired outcome with fewer problems and unforeseen complications.”

Based on experience researching and compiling the Guild of Project Controls Compendium of “Best Tested AND PROVEN” practices, and given that what has become known as “Agile” is nothing more than the current incarnation or “branding” of the “Scientific Method” dating back 900 years to the 12th Century, these are the 5 “tests” that were agreed to by the Guild of Project Controls and applied for the subsequent research updating the original work done for the Guild that we’ve published.

How to TEST and VALIDATE "Best Tested and PROVEN" practices?⁴

Given the "Scientific Method" has been around since the 12th Century, having evolved from the "trial and error" method used 300,000 years ago by our Neanderthal ancestors to tame fire⁵ or 6000 years ago to invent the wheel⁶ became more formalized and structured, starting with the work of Albertus Magnus (1206–1280), Thomas Aquinas (1225–1274), Robert Grosseteste (1175–1253), Roger Bacon (1214/1220–1292), William of Ockham (1287–1347)⁷ these are the 5 "tests" we applied to the identification and selection of "Best Tested and PROVEN" practices for the Guild's Compendium⁸ and then again for our updated 2nd Edition⁹, and these are the five tests we would urge other "professional societies" to adopt when creating STANDARDS OF PRACTICE.¹⁰

#1- Empirical Observation

The scientific method is empirical. It relies on direct observation of the world and disdains hypotheses counter to observable fact. This contrasts with methods that rely on pure reason (including those proposed by Plato) and methods that rely on emotional or other subjective factors.

#2- Replicable Experiments

Scientific experiments are replicable. If another person duplicates the experiment, he or she will get the same results. Scientists are supposed to publish enough of their method so that another person, with appropriate training, could replicate the results. This contrasts with methods that rely on unique experiences to a particular individual or a small group of individuals.

#3- Provisional Results

Results obtained through the scientific method are provisional; they are (or ought to be) open to question and debate. If new data contradicts a theory, that theory must be modified. For example, the phlogiston theory of fire and combustion was rejected when the evidence against it arose.

⁴ Flom, Peter. "Five Characteristics of the Scientific Method" sciencing.com, <https://sciencing.com/five-characteristics-scientific-method-10010518.html>. 19 December 2021.

⁵ Cormier, Zoe (n.d.) <https://www.bbcearth.com/news/did-neanderthals-learn-to-make-fire-before-homo-sapiens>

⁶ Gambino, Megan (2009) Smithsonian Magazine <https://www.smithsonianmag.com/science-nature/a-salute-to-the-wheel-31805121/>

⁷ Stanford Encyclopedia of Philosophy "Scientific Method" (2021) <https://plato.stanford.edu/entries/scientific-method/>

⁸ Guild of Project Controls Compendium of "Best Tested and PROVEN" practices" <http://www.planningplanet.com/guild/GPCCAR-modules>

⁹ PT Mitratata Citragraha (2021) <https://build-project-management-competency.com/1-4-1-1-unit-1/>

¹⁰ Flom, Peter. (2018) "Five Characteristics of the Scientific Method" sciencing.com, <https://sciencing.com/five-characteristics-scientific-method-10010518.html>. 23 December 2021.

#4- Objective Approach

The scientific method is objective. It relies on facts and the world as it is, rather than on beliefs, wishes or desires. Scientists attempt (with varying degrees of success) to remove their biases when making observations.

#5- Systematic Observation

Strictly speaking, the scientific method is systematic; it relies on carefully planned studies rather than random or haphazard observation. Nevertheless, science can begin from some random observation. Isaac Asimov said that the most exciting phrase to hear in science is not “Eureka!” but “That’s funny.” After the scientist notices something funny, they proceed to investigate it systematically.

While we believe the PMBOK Guide was on the right track by establishing the PRINCIPLES relating to project management, we have and continue to advocate that not only PMI but also IPMA, AACE, AIPM, APM/APMG and any other organization establishing STANDARDS to embrace as a MINIMUM, these five criteria associated with the “Scientific Method.”

THE IMPORTANCE OF PROJECT MANAGEMENT BEST TESTED and PROVEN PRACTICES

In their article, the authors miscited Einstein’s definition of “Insanity” as “doing the same things repeatedly *but expecting different results.*”¹¹ Another relevant citation supposedly originated from Henry Ford: “*If you always do what you’ve always done, you will always get what you always got.*”¹² But research indicates it was Jessie Petter.

PMI, AACE (and others) have adopted Shewhart’s PDCA Cycle or Deming’s PDSA Cycle, which we know has not worked in a project environment. So applying Einstein’s or Henry Ford’s philosophies, when are we going to “stop doing the same things over and over again that haven’t worked” and try something NEW?

Research done for the Guild of Project Controls indicates that a model that HAS been tested and proven to work is Argyris and Schon’s “Double Loop Learning” approach. Because Shewhart and Deming were working in a PRODUCTION environment, while project management is a UNIQUE ENVIRONMENT, our 100+ years of combined experience indicates that focusing on continuous process improvement of the workflow processes made more sense applying Argyris and Schon’s model than did Shewhart or Deming.

Is this the BEST solution? Is this the ONLY solution? We don’t know but speaking as businessmen and women with over 100 years of experience as entrepreneurs and practitioners between us and applying the Scientific Methods Rules #1-Empirical

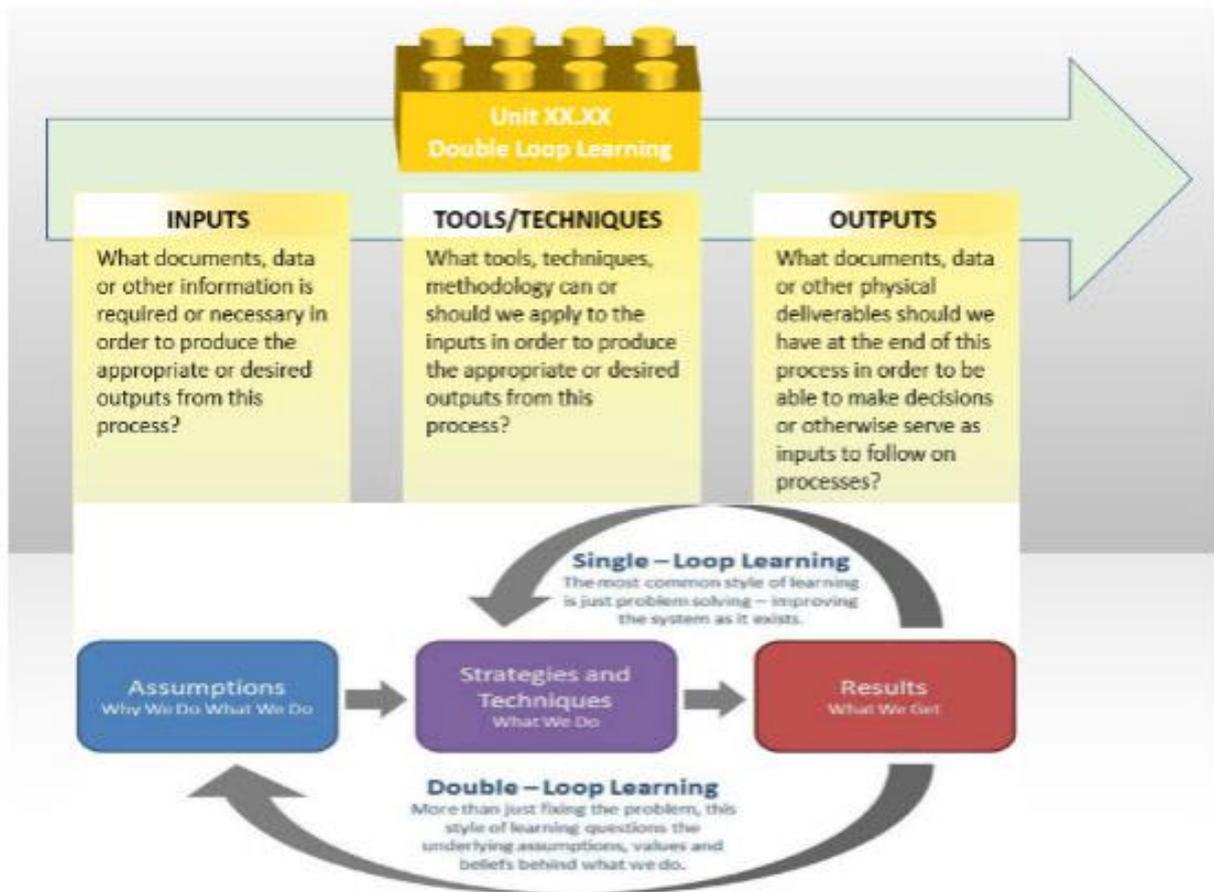
¹¹ Misattributed to Albert Einstein- <https://www.history.com/news/here-are-6-things-albert-einstein-never-said>

¹² Misattributed to Henry Ford/Jessie Potter- <https://quoteinvestigator.com/2016/04/25/get/>

Observation and #2- Replicable Experiments, it has worked for us for over 100 years now, and we can only urge others to give it a try in YOUR organization. See if YOU can replicate the results that WE have been able to achieve?

Project Controls/PMO Handbook of “Best Tested and PROVEN Practices”

Researched and Compiled by PTMC and Dr. Paul D. Giammalvo



1120 Figure 28– Process Mapping from 100 Meters Showing Continuous Process Improvements

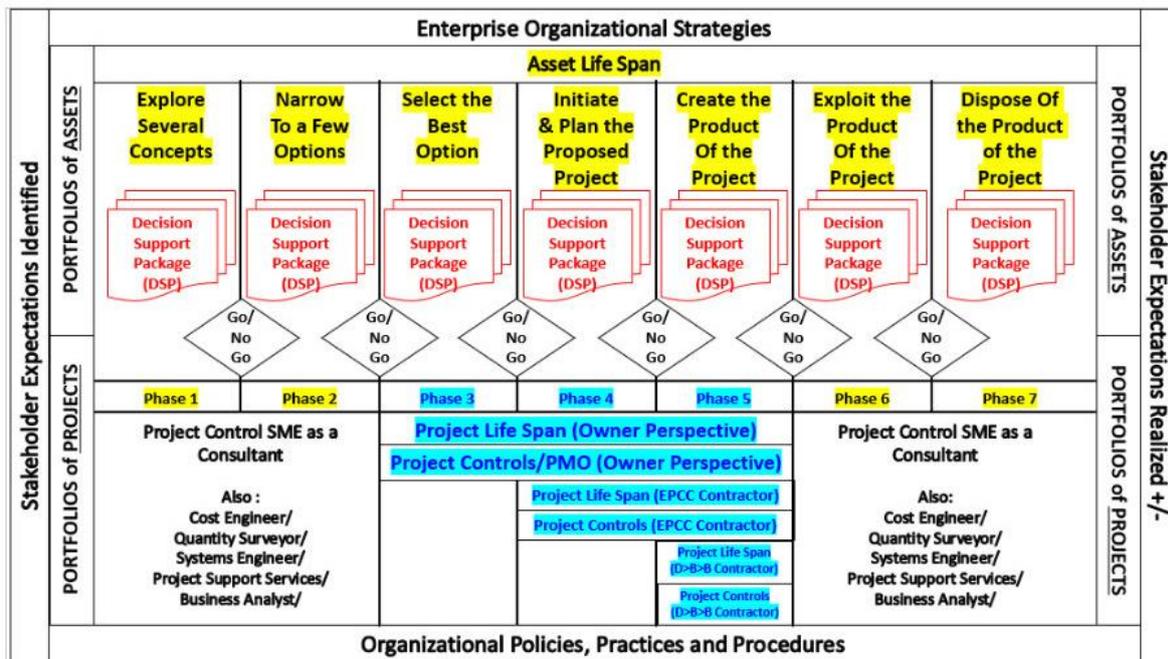
Figure 1- Argyris and Schon’s Double Loop Learning

IDENTIFICATION, VALIDATION AND IMPLEMENTATION OF BEST TESTED AND PROVEN PRACTICES

In their paper, we were shocked to see that neither Dr. Z nor Dr. K referenced the fully Integrated Asset, Portfolio, Program and Project Management METHODOLOGY first made public by either Esso or Diamond Shamrock Oil way back around 1955 and attesting to the fact this ASSET CENTRIC model has been TESTED AND PROVEN TO WORK, is still in use not only by all the major oil, gas and mining companies but also by almost all utility and infrastructure companies, both public and private.¹³

¹³ For names of specific companies who have adopted an Asset Centric approach, go HERE and review the corporate members of the Asset Management Association <https://theiam.org/corporate-directory/>

This is a graphic of the fully integrated Asset, Portfolio, Program and Project Management METHODOLOGY, a compilation created from materials published by Chevron Oil and ZadcO Oil.



538 Figure 13– Waterfall Model of the Integrated Asset, Portfolio, Program, and Project
 539 Management Methodology

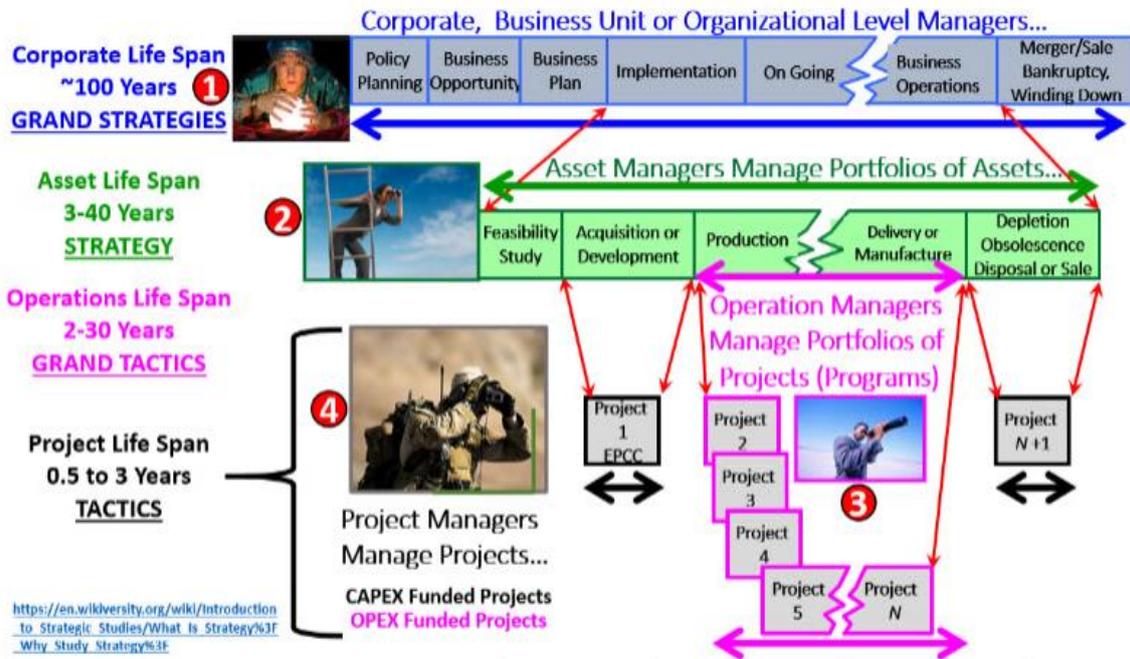
Figure 2- Integrated Asset, Portfolio, Program and Project Management Model¹⁴

This model shows that the focus is NOT on the project life SPAN, which in an OWNER ORGANIZATION are COST or INVESTMENT CENTERS. Meaning that for OWNERS, projects are nothing more than a MEANS TO AN END and not an END UNTO ITSELF. It is typical of CONTRACTOR organizations, where projects are PROFIT CENTERS. In an ASSET CENTRIC model, the entire business case is focused on the life SPAN of the ASSET and not the PROJECT, which is nothing more than a DELIVERY SYSTEM designed to “create, update, expand, repair, maintain and eventually dispose of ORGANIZATIONAL ASSETS. In many OWNER organizations, especially in oil, gas and mining, the project’s COST can double before it negatively impacts the business case.^{15, 16}

To validate this statement, look at a Tornado or Sensitivity Diagram for most oil, gas and mining projects. You can see that the project’s cost ranks at or near the bottom when ranking all the input variables that affect the business case.

¹⁴ Integrated Asset, Portfolio, Program and Project Management Methodology Adapted from Chevron and ZadcO Oil.
¹⁵ Giammalvo Paul D (2021) <https://pworldlibrary.net/wp-content/uploads/2021/06/pmwj106-Jun2021-Giammalvo-the-bigger-picture-commentary.pdf>
¹⁶ Giammalvo Paul D (2021) <https://pworldlibrary.net/wp-content/uploads/2021/11/pmwj111-Nov2021-Giammalvo-principle-based-project-management-the-whole-truth.pdf>

Another reference that they failed to include but should have is the work of R. Max Wideman, dating back to around 1985 where Max took the 4 level Strategy Map developed originally by Sun Tzu 2500 years ago and subsequently validated by Field Marshals Helmuth von Moltke¹⁷ and Carl von Clausewitz¹⁸.



320 Figure 5- Introducing the Four “Actors” for Integrated Asset, Portfolio, Program, and Project Management and their Roles- 15,000 Meter View. (Adapted
 321 from published work of Max Wideman, circa 1985, Used with permission

Figure 3- Four Levels of Strategic Decision Making¹⁹

How is it that this “best tested and PROVEN” strategy map that remains just as valid today as it was 2500 years ago got missed in the 1996 PMBOK Guide? Why are these FUNDAMENTAL PRINCIPLES NOT included in the PMBOK Guide, 7th Edition?

Why is this same strategy map missing from PRINCE2 as well?

IF Figure 3 indicates what your organization’s decision-making model looks like, how can PMI’s PMBOK Guide or PRINCE2 POSSIBLY work in your organization if such an important “actor” is missing?

The “problem” or “missing link” is that neither PMI nor PRINCE2 recognizes the roles and responsibilities of the ASSET MANAGER as the PROJECT SPONSOR and, more

¹⁷ Helmuth von Moltke the Elder “The Art of War” <http://www.strategybydesign.org/von-moltke-the-elder-on-strategy>

¹⁸ Carl von Clausewitz (1832 Six Lessons for Modern Strategists) <https://www8.gsb.columbia.edu/articles/node/1788/von-clausewitz-on-war-six-lessons-for-the-modern-strategist>

¹⁹ Aubrey Jaysiel Wikiversity (2019) “Introduction to Strategic Studies/What Is Strategy? Why Study Strategy?” https://en.wikiversity.org/wiki/Introduction_to_Strategic_Studies/What_Is_Strategy%3F_Why_Study_Strategy%3F

logistics” And Jack Welch, in his definition of strategy, “Pick a general direction--and EXECUTE like hell.”²³

In the world of project management, given that von Moltke told us way back in 1871 that “no plan survives first contact with the enemy” and Eisenhower told us in 1950 that “plans are worthless, but planning is essential,” tell us that STRATEGY is not what is important, but LOGISTICS is. Therefore we disagree with Dr. K, Dr. Z, Antonio Nieto-Rodriguez and those from the “Big 4” consulting companies who are focused on the C-Level decision-makers when what we need IF we want to see improvements in project success rates are better **Logistical Support** for those working “downrange”- people responsible to EXECUTE, which is the role of the Asset Managers, not the C-Level people.

In the November issue of the PMWJ in “Principle-Based Project Management”: The Truth, the Whole Truth and Nothing but the Truth?”²⁴ we made an argument that the real or true role of the project manager and the PMO Team is to SUPPORT those people “downrange”- those on the “front lines” responsible for generating PHYSICAL PROGRESS as measured by BCWP. To do this, the ASSET MANAGERS are responsible for providing the RESOURCES or ASSETS those on the front lines need to get the job done. As Omar Bradley told us, it is not STRATEGIES that produce successful projects but LOGISTICS. As Jack Welch told us, EXECUTION is everything-meaning that if you are not generating BCWP, all you are is OVERHEAD.

Speaking as CONTRACTORS, where we live and die by our cash flows, we implicitly understand that if the people responsible for executing the work do not have the tools, materials, equipment, and knowledge to execute the work, there will be no progress. And that has little to do with STRATEGY but EVERYTHING to do with TACTICS and LOGISTICS. This comes back to what is known in the military as “Centralized Planning/Decentralized Execution”²⁵ and is consistent with what we know as Rolling Wave Planning, and our Agile brothers and sisters know as “Scrums” or “Sprints.” Yet nothing we see in the IIL paper or the PMBOK Guide 7th Edition indicates this relationship between ASSETS/RESOURCES and EXECUTION or IMPLEMENTATION despite the fact that “COMMON SENSE” should indicate this to be a “best tested and PROVEN” practice?

Continuing with the “Common Sense” approach, we know or should know by now that, on average, the gestation period for a human to produce a healthy baby is **about 280 days or 40 weeks**²⁶. We also know that if a baby is delivered before 37 weeks, the baby is not healthy, incurring significant costs and risks and that an infant born less than 22 or

²³ Tom Peters Tweet (2018) https://twitter.com/tom_peters/status/957695926159765512?lang=en

²⁴ Giammalvo, P.D. (2021). “Principle-Based Project Management”: The Truth, the Whole Truth and Nothing But the Truth? PM World Journal, Vol. X, Issue XI, November. 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/wpcontent/uploads/2021/06/pmwj106-Jun2021-Giammalvo-the-bigger-picture-commentary.pdf>

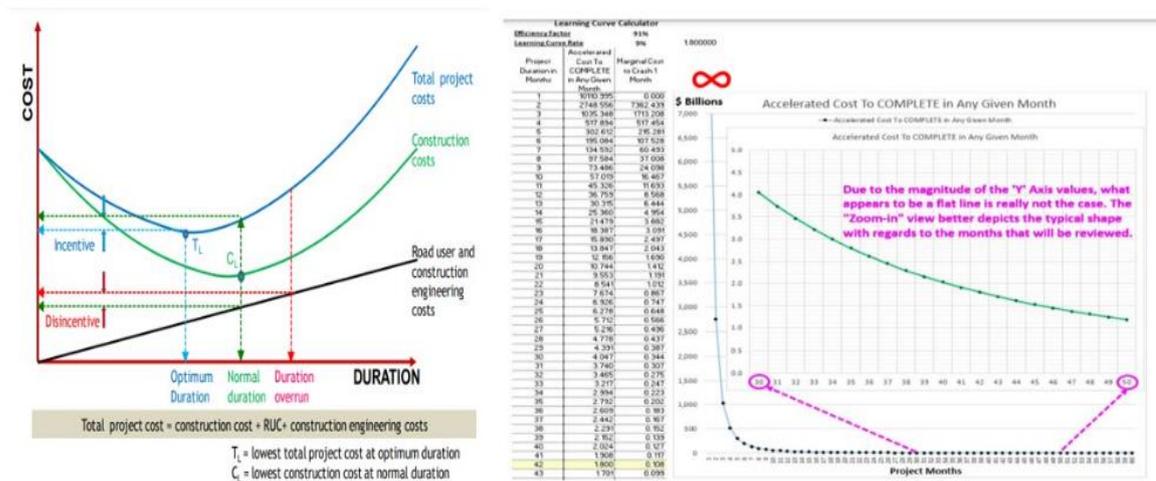
²⁵ Lt Col Alan Docauer, USAF (2014) “Peeling the Onion Why Centralized Control / Decentralized Execution Works” https://www.airuniversity.af.edu/Portals/10/ASPI/journals/Volume-28_Issue-2/F-Docauer.pdf

²⁶ New York Dept of Health https://www.health.ny.gov/community/pregnancy/why_is_40_weeks_so_important.htm#:~:text=Pregnancy%20lasts%20for%20about%20280,born%203%20through%2028%20weeks.

23 weeks is unlikely to survive. At the other extreme, when a pregnancy goes longer than 42 weeks, it represents a health risk to both the baby and mother, which is why after 42 weeks, the doctor induces labor or performs a C-Section. In either scenario, the further before or after the OPTIMUM time, we incur both INCREASING costs and risks.

Projects are no different. There is an OPTIMUM DURATION and an OPTIMUM COST, yet where are these calculations required in the PMBOK or any other standards? Is anyone expected to calculate the OPTIMUM duration and COSTS of our PROJECTS? The US Dept of Transportation advocates we do this and have provided us with formulas, and one of our top students, Stephen Paterson, ExxonMobil Oil in Singapore, has come up with a proposed formula suitable for oil and gas projects.

2409 ✓ Cost vs. Time Trade-Offs (Optimization)



2411 Figure 66- Two Examples of Optimization Formulas
 Figure 5- Two Cost Vs. Time Optimization Formulas^{27, 28},

Despite these having been published for ten years or more and having been adopted by the Guild of Project Controls, when is PMI or AACE or APM/APMG or Praxis going to test these formulas out and, if necessary, develop and publish models for IT, Telecommunications or other more recent applications?

The final example is that despite being advocated by PMI in all versions of the PMBOK Guide, it is shocking how few people have embraced the concept of Earned Value Management. Why is this? Because PMI (and AACE) continue to advocate the use of EVM as it was developed and used by the US Government rather than the “Common Sense” method that dates to biblical times and was well documented and perfected on the factory floor of the 18th Century Industrial Revolution as a “pay for performance” or

²⁷ Mallela, J., & Sadasivam, S. (2011). Work zone road user costs: Concepts and applications: final report. U.S. Department of Transportation, Federal Highway Administration Office of Operations (HOP).

<https://ops.fhwa.dot.gov/wz/resources/publications/fhwahop12005/fhwahop12005.pdf>

²⁸ Paterson Steve (2017) “Incentivizing Early Completion of Oil and Gas Projects” <https://pmworldlibrary.net/wp-content/uploads/2017/11/pmwj64-Nov2017-Paterson-incentivizing-early-completion-of-oil-and-gas-projects.pdf>

“incentive payment system.” In construction, this original evolution of Earned Value is still in use today, and if we want to have this “Common Sense” tool and technique adopted by everyone, then we need to STOP advocating how the US Government uses earned value and go back to linking EVM to PAYMENT including incorporating the INCENTIVE for those who perform the work fastest or most EFFICIENTLY which is or at least should be, the objective of both OWNERS and CONTRACTORS alike?²⁹



Figure 6- Earned Value as it ORIGINATED as a “Pay for Performance” System.^{30, 31, 32}

Figure 6 illustrates the fundamental principles of Earned Value Management dating back to biblical times and still in use today in many of the construction trades where the costing and pricing (Bidding) is based on the “Unit in Place” method where the “bid” or “quote” is based on a firm-fixed unit in place, and the billing is based on the actual quantities installed.

Examples of this very simple and fair method include most civil projects (Cubic Yards or Cubic Meters of earth moved or fill provided), painting, roofing, flooring (based on the square foot or square meter in place) and anything where we can easily measure and document the actual units in place. (i.e., Piping? Tons of steel? Cubic Meters or Yards of Concrete?)

²⁹ Giammalvo Paul D (2020) <https://pmworldlibrary.net/wp-content/uploads/2019/11/pmwj87-Nov2019-Giammalvo-Letter-to-Editor-on-the-history-of-evm.pdf> and <https://pmworldlibrary.net/wp-content/uploads/2020/02/pmwj90-Feb2020-Giammalvo-Letter-to-Editor-on-subject-of-earned-value.pdf>

³⁰ Taybi, Yasmine (2019) “Earned Value and Shariya Law” <https://pmworldlibrary.net/wp-content/uploads/2019/09/pmwj85-Sep2019-Taybi-is-evm-consistent-with-sharia-law.pdf>

³¹ Maloni, Farid (2003) <http://www.mgmt-technologies.com/shariah%20law%20and%20EVM.pdf>

³² Geneste. Sophie (2019) <https://pmworldlibrary.net/wp-content/uploads/2019/10/pmwj86-Oct2019-Geneste-the-true-origins-of-evm.pdf> 2019 PMWJ Editor's Choice Awards – Student Papers

We can use the incremental milestone or weighted equivalent methods for knowledge-based work or other intangible deliverables. The challenge for knowledge workers is not whether earned value can work but how best to fairly and accurately measure the fair market value of the work that has been put in place. Challenging? Absolutely. Impossible? ONLY if we fail to apply “common sense,” imagination and innovation.

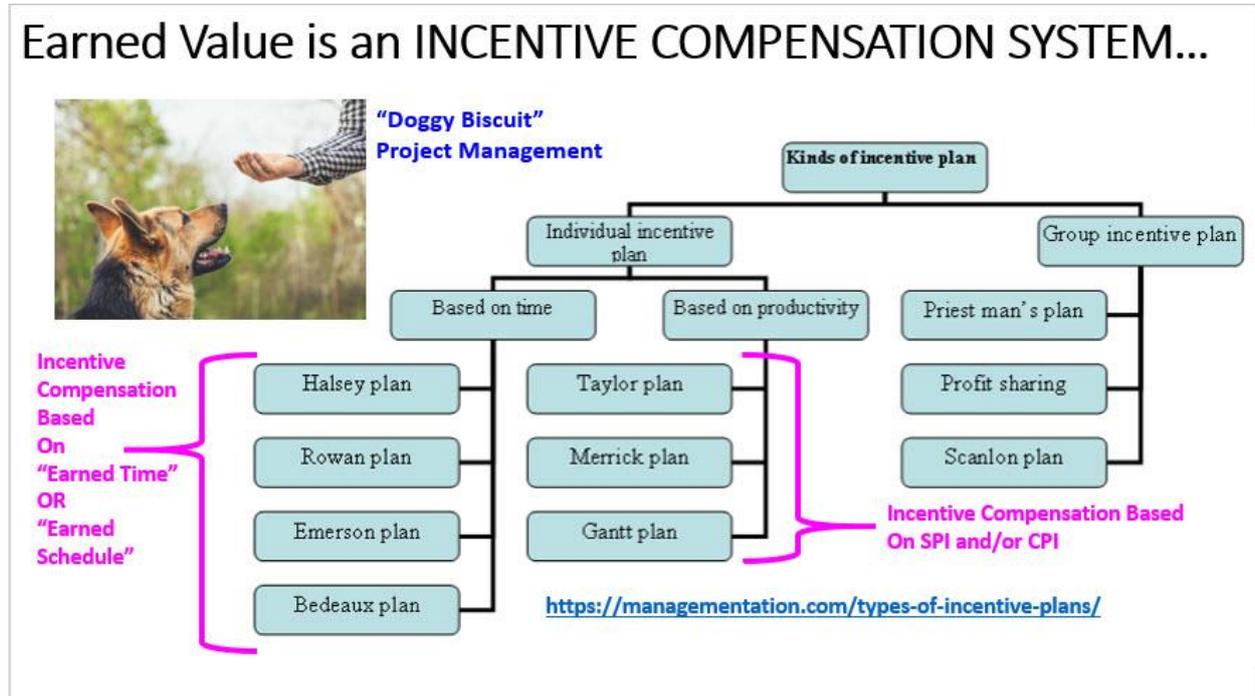


Figure 7- Various Incentive Compensation Systems Using Earned Value Calculations

For those who truly want to understand the MODERN evolution of Earned Value, we need to get beyond Walt Lipske, the US Air Force and PMI and go back to the late 1800s and early 1900s where [Halbert Powers Gillette](#) and [Richard Turner Dana](#) published “Cost Keeping and Management Engineering: A Treatise for Engineers, Contractors and Superintendents Engaged in the Management of Engineering Construction”³³ which demonstrates the very concepts of earned value management as an INCENTIVE PAYMENT or PAY FOR PERFORMANCE system designed to reward and fairly compensate those who worked faster and more efficiently.

Now OWNERS, do you or do you NOT want your contractors working faster and more efficiently? Do you want to pay for work ONLY that substantially conforms to the plans, specifications in fulfillment of the contractual terms and conditions?

Contractors, do you or do you not want to maintain neutral cash flows that match the fair market value of the work being performed (including profit margins) to the actual costs of performing that work? Do you want to be paid PROMPTLY for the work you have done?

³³ Gillette and Powers (1909) “Cost Keeping and Management Engineering: A Treatise for Engineers, Contractors and Superintendents Engaged in the Management of Engineering Construction”
https://books.google.co.id/books?redir_esc=y&id=zO-ADudj-R8C&focus

The fact remains IF we would break from using EVM as the US Government has bastardized it³⁴ (which, unfortunately, PMI, AACE and ISO have incorporated into their standards) and adopt the way the private sector has been it since the heyday of the Guilds in the 16th Century and continues to this day to use EVM as a “pay for performance” system that links the physical completion of work that substantially conforms to the plans, technical specifications and contractual terms and conditions to PROMPT PAYMENT, instead of having to force people to use EVM, practitioners, not only contractors but owners as well would be DEMANDING it be used on ALL contracts, regardless of the size of the project or the type of contract. (See Figure 6)

Another frustrating example of how PMI has failed to “lead by example” is based on the root cause analysis done by Glenn Butts (NASA) and Prof Bent Flyvbjerg, Oxford University. Over ten years ago, these two outspoken critics were telling us not only why project management was not working but gave us actionable solutions to remedy or mitigate these root causes.

Yet despite these papers having been published over ten years ago, where is there any evidence that PMI or AACE or APM/APMG or any other professional organization claiming to represent us as practitioners has acted on their recommendations? To our knowledge, the only professional standards organization to embrace more ACCOUNTABILITY for project professionals is the Guild of Project Controls who adopted the Model Code of Ethics developed by the Society for Compliance and Ethics Professionals (SCCE)³⁵ that requires us to REJECT any projects that are unlikely to succeed.³⁶

³⁴ Giammalvo, Paul D (2013) <https://pmworldlibrary.net/wp-content/uploads/2013/07/pmwj12-jul2013-giammalvo-practical-look-enterpreneurial-contractors-evm-FeaturedPaper.pdf>

³⁵ Society of Corporate Compliance and Ethics Model Code of Ethics-
https://assets.corporatecompliance.org/Portals/1/PDF/Resources/SCCECodeOfEthics_English.pdf

³⁶ Guild of Project Controls Code of Ethics (n.d.) <http://www.planningplanet.com/guild/code-of-ethics>

Stairway to Success

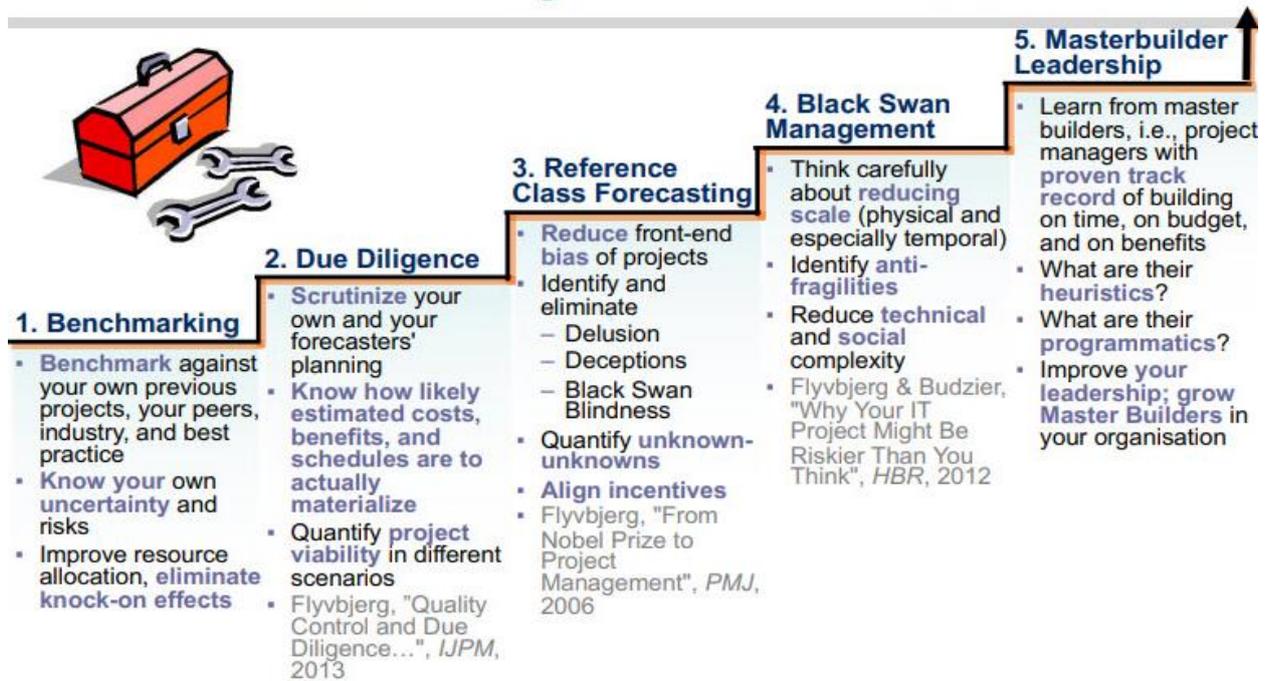


Figure 8- Flyvbjerg’s “Stairway to Success”

As further evidence of the hypocrisy of PMI leadership³⁷, how is it PMI awarded Professor Flyvbjerg their “2019 Research Achievement Award” while for 10+ years have been IGNORING the findings of his research? What a slap in the face!!!

³⁷ For more on this topic, review the comments on Glassdoor from current and past employees of PMI, many who have been there for 5 or more years from- https://www.glassdoor.com/Reviews/Project-Management-Institute-humiliating-Reviews-EI_IE256669_0_28_KH29_40.htm?sort.sortType=OR&sort.sortAscending=true&filter.iso3Language=eng&_cf_chl_jschl_tk_=k1LNia_n.xwNpYuJplitgYrVAGbpdhpTm1kM27qwPiBM-1639900993-0-gaNycGzND2U

Conclusions

- ◆ **Most large projects** 
 - ◆ **Projects everywhere suffer the same fate.**
 - Early estimates are optimistic – much more than commonly believed.
 - ◆ Any early estimate for a development project that fails to consider possibility of triple digit cost growth *is NOT being realistic.*
 - ◆ *No other experience is more valuable than the experience of failure, it must be shared honestly and completely*
 - Coverups & revisionist history must be stopped in attempt to bury the truth
- ◆ **Two requirements to prevent cost overruns.**
 1. Create BETTER initial estimates by real estimators
 - Include all potential risks (internal and external)
 - – 50% of project cost growth due to external factors
 - Add probabilistic allowance for true unknowns
 2. Hold Project Managers accountable to original estimate
 - They will stop “spinning numbers” and will demand
 - Qualified estimators & credible numbers
 - Failure analysis to determine issues

Stop mandating
processes and
reports - start
rewarding success
and punishing
failure.
**IMPROVEMENTS
WILL OCCUR!**

Figure 9- Glenn Butt’s “Recommendations”³⁸

Likewise, here are the recommendations of Glenn Butts, NASA, which have also been largely IGNORED by PMI and their elected and volunteer leadership. After ignoring so many of them for ten years or more, how can anyone talk about “best tested and PROVEN” practices? Where are these “best tested and PROVEN” practices covered in the PMBOK Guide, 7th Edition? AACE’s Total Cost Management Framework? PRAXIS? How much longer can we or should we tolerate such blatant hypocrisy? Where is the REAL “Leadership by Example”?

WHAT DOES THE NEXT DECADE HOLD FOR “BEST TESTED AND PROVEN” PRACTICES?

Given Artificial Intelligence (AI) and Integrated or Automated Systems such as Building Information Modeling, Virtual, Augmented and Mixed Reality, whether we like it or not, we have no choice but to first “clean-up” the systems we have because if we automate a system that is “broken” or “inefficient,” then we have achieved nothing of value, and may have violated the #1 Rule of the Hippocratic Oath that is to “do no harm.”

We also need to move beyond exam-based credentialing and focus on producing, measuring and assessing more COMPETENT practitioners. We’ve seen it done in medicine, commercial aircraft piloting, architecture, engineering and the trades, so there is no excuse why we cannot or should not do it for project managers as well, keeping in mind that the processes of project management as they relate to other professions and trades are already built into the credentialing process for those professions and trades

38

that have been using the project management processes as asset delivery systems for hundreds if not thousands of years.

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 10- Existing Professions and Trades Using Project Management as an Asset Delivery System

So using the examples above, which of the relatively NEW “trades” or “professions” using the integrated Asset, Portfolio, Program or Project management processes as an asset delivery system does NOT incorporate the learning of the relevant processes as an integral part of the formal education system? IT? Telecommunications? We suspect that the list is not very extensive, and we even see evidence that those who do not are changing. (Look at courses from Embry Riddle for the aeronautical professions and Steven’s Institute of Technology to see examples of project management courses being added to the curriculum for IT and Telecommunications degrees.)

Given the proliferation of Building Information Modeling (BIM) and the use of Virtual, Augmented and Mixed Reality that is automating the entire construction asset life span from concept through demolition, IF we expect the various 1D, 2D, 3D, 4D, 5D and 6 D apps to be able to exchange data, there are two requirements:

- 1) *WBS and CBS coding structures must be STANDARDIZED across entire sectors AND*
- 2) *They cannot be “flat file” or hierarchically organized but must be structured as OBJECT-ORIENTED or RELATIONAL databases meaning they can be filtered, sorted and displayed in any way that makes the most sense to different stakeholders.*

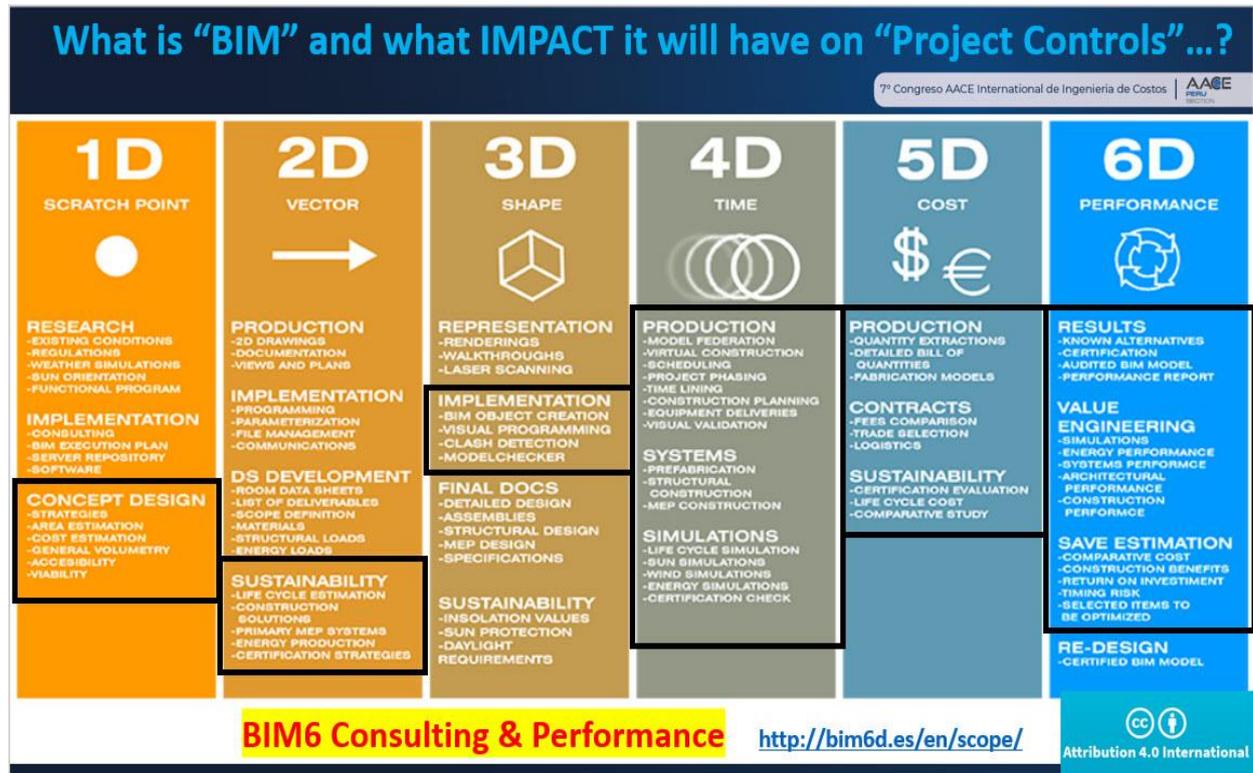


Figure 11- The Future is Here NOW- Building Information Modelling (BIM)³⁹

In construction, Building Information Modeling (BIM) already exists and is growing by the day, with many countries (USA, UK, Singapore et al.) mandating the use of BIM for all government-funded projects. This genie is out of the bottle and already is having an impact on construction project management in general and in “project controls” or “Project Management Offices” (PMO’s) specifically.

Given that construction, medicine, entertainment, and new product development have been around for 6000+ years now, don’t you agree that in 6000 years, we should have learned how to “initiate, plan, execute, control and close” projects successfully? And is it unreasonable to expect or urge our colleagues from less mature users of project management processes as the delivery system to “create, acquire, expand, update, repair, maintain and eventually dispose of ORGANIZATIONAL ASSETS to invest the time and effort to research what other, more mature users of the project management processes know for a fact have worked and then ADAPT those “best tested and proven practices” for new applications?

³⁹ AACE Presentation in Milan Italy and Lima Peru

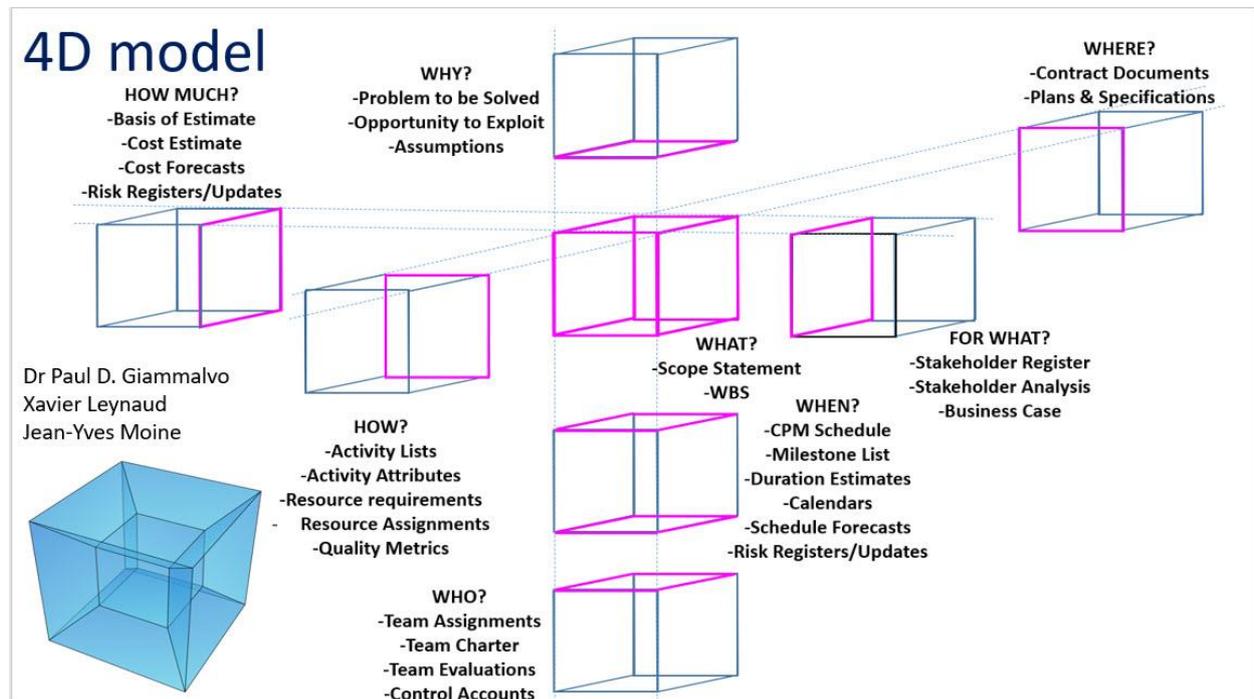


Figure 12- Multi-dimensional, multi-stakeholder WBS/CBS Coding Structures⁴⁰

To get an idea of what the WBS/CBS structure of the future is likely to look like using Virtual, Augmented, and Mixed Reality, take 2 minutes to watch this video on [Tesseract or “Hypercubes”](#) and then take 2 minutes [to watch this video of a ship being designed and built using 3D BIM software](#). This is what is being done RIGHT NOW, and we see little or no evidence that PMI nor AACE, much less IPMA, APM/APMG or any of the other “professional societies,” are being proactive in preparing tomorrow’s practitioners for this world. (AACE is doing more than most but not as much as the Guild of Project Controls).

After watching these two videos, IF you do not recognize this is what is happening right now and that if you fail to prepare for it NOW, in a very short period, you are going to become UNEMPLOYABLE, just as happened to the buggy whip manufacturers in the early 1900s when the automobile replaced the horse. These are the times we live in right now. While project management will survive and thrive in this new world, just as it has for the past 6000+ years, there is no indication PMI, AACE, or any other “professional societies can recognize what is happening, much less are being proactive in preparing for it.

This is why we are picking up where Dr. Z and Dr. K left off and are putting forward ACTIONABLE ITEMS that we all should be pushing PMI, AACE, IPMA, AIPM, APM/APMG or any other organization to start thinking about and starting to prepare their members to be employable in this world. And this is NOT going to come from the “Big

⁴⁰ Xavier Leynaud, Paul D. Giammalvo Ph.D., Jean-Yves Moine (2019) “Multi-Dimensional Project Breakdown Structures – The Secret to Successful Building Information Modeling (BIM) Integration” <https://www.amazon.com/Multi-Dimensional-Project-Breakdown-Structures-Information/dp/1948149125>

4” Strategic Consultants but from those PRACTITIONERS who PHYSICALLY DO THE WORK and those LOGISTICAL (Asset Managers) who support them.

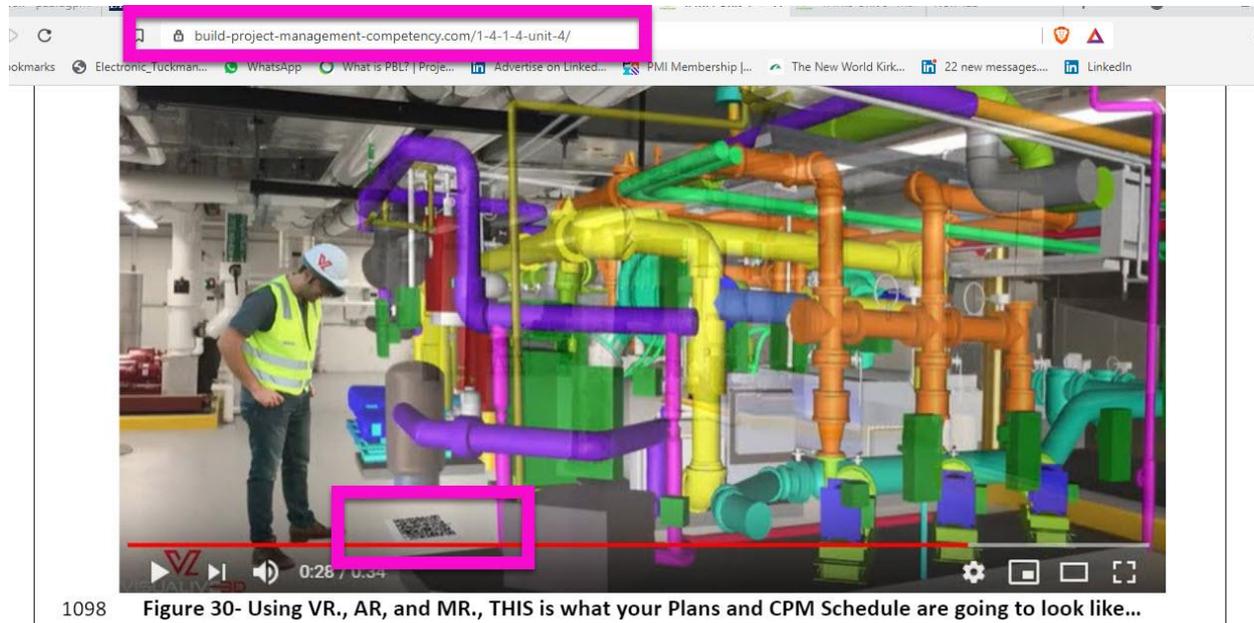


Figure 13- What Project Scheduling, Plans and Specifications Software Is Starting to Look Like.

For those of you who are currently working as “Quantity Surveyors, Cost Estimators, Planners and Schedulers, we hate to be the bearers of bad news, but the evidence is clearly pointing to the use of Virtual, Augmented and Mixed Reality that is going to pretty much replace what you are currently doing. Just as digitizers replace the old-fashioned manual calculation of quantities, how much longer will it be before planning/scheduling and cost estimating are AUTOMATED using 4D and 5D BIM software? Five years? Ten years?

FWIW, Clemson University just started a [Drone Pilots course](#). We urge all our QS, Cost Estimators, Planners and Schedulers to get their Commercial Drone Pilot’s licenses and start preparing NOW for the inevitable future.

CONCLUSIONS- TEN “BEST TESTED AND PROVEN” PRACTICES

It is clear that organizations such as PMI, AACE, APM/APMG et al. are quickly losing credibility, and the trust and respect of the consuming public for those who claim to be “project managers” is waning, and that this has been happening for at least the past ten years.

The only way to fix this is by earning back the trust and respect of the consuming public, which means very simply we need to start delivering projects on time, within budget, in substantial conformance to the technical specifications but more importantly, that the asset produced by the project solves the problem or exploit the opportunity that they

were undertaken to achieve or realize. (Meets or exceeds the business case for which they were undertaken to achieve)

Tuesday November 22, 2011

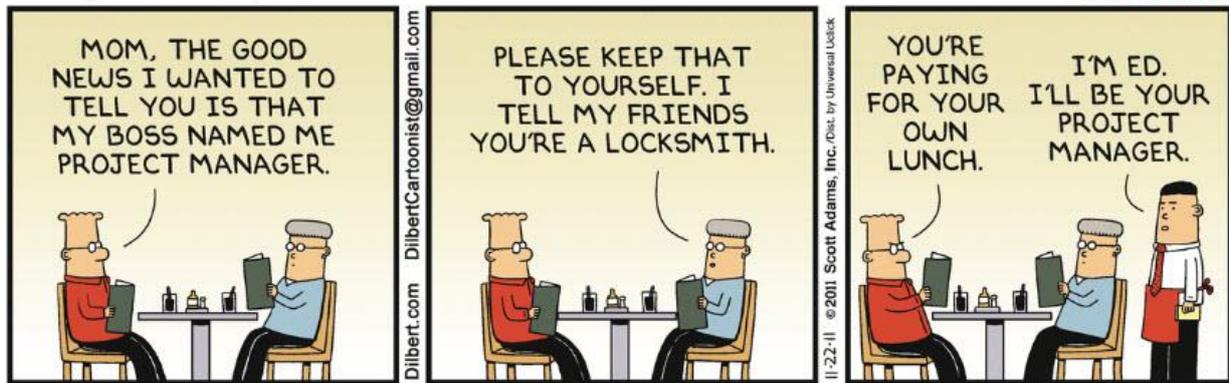


Figure 14- Loss of Respect for Project Managers⁴¹

Unfortunately, the loss of trust and respect has only been exacerbated in recent years with the proliferation of social media, specifically Linked In, where Umberto Eco⁴² observed an “invasion of the idiots,” or “bloviating poohbah’s” where we see people with little or no verifiable EXPERIENCE voicing opinions on topics they clearly do not understand and worse yet, Linked In refuses to require posters to back up their opinions and instead, silence those with the audacity to “speak the truth” and back up their opinions with EVIDENCE.

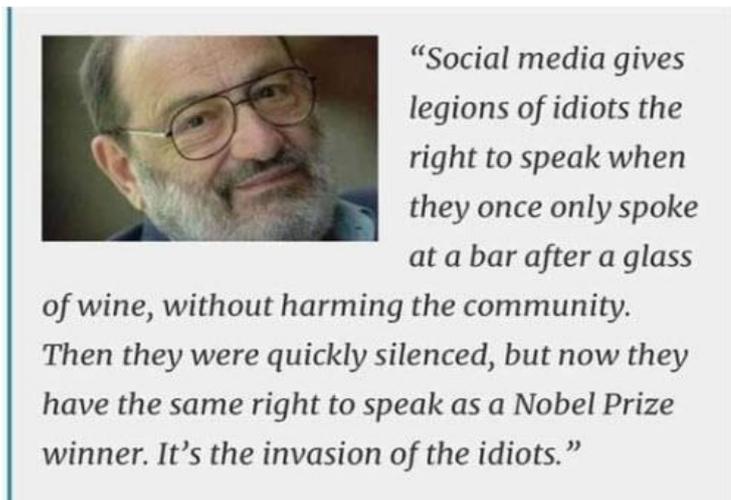


Figure 15- Umberto Eco Quote

Another relevant quote that helps us define this problem comes to us from Millennial and New York Times Best Selling Author, Simone Elkeles who told us, “Opinions are like a**holes, everyone has one, but they think each other’s stink.”⁴³ In the world of project management, far too many “armchair practitioners” are happy to share unsupported and, in many cases, unsupportable opinions. This is why adopting the 5 Attributes of the scientific method is so essential.

Based on nine+ years of research for the Guild of Project Controls followed by our research on producing an updated version of the work done for the Guild, combined with

⁴¹ Dilbert (Nov 22, 2011) <https://www.pinterest.com/pin/225180050088130963/>

⁴² Eco, Umberto (n.d.) <https://www.goodreads.com/quotes/9870044-social-media-gives-legions-of-idiots-the-right-to-speak>

⁴³ Elkeles, Simone (n.d.) <https://www.goodreads.com/quotes/212186-opinions-are-like-assholes-everyone-has-one-but-they-think>

100+ years of hands-on field experience “initiating, planning, executing, controlling and closing projects” where our own money is on the line if they succeed or fail, here are our recommendations for consideration, debate but more importantly, IMPLEMENTATION:

❑ **ACTIONABLE ITEM #1-**

Throw the PMBOK Guide 7th Edition in the trash where it belongs before it causes any more damage to the practice of project management and instead adopt as the STANDARD for being accepted as a “Best Tested and Proven” tool, technique, methodology or workflow is determined by how well it meets or fulfills the 5 Attributes of the Scientific Method as the Guiding Principles. Those 5 Attributes are:

.1. **Scientific Method.**

.1.1. **Empirical,**

.1.2. **Replicable,**

.1.3. **Provisional,**

.1.4. **Objective and**

.1.5. **Systematic.**

.2. IF the tool, technique, or methodology cannot meet all five criteria, it does NOT qualify as a “best tested and proven” or “fit for purpose” standard.

.3. Implicit in this is different tools, techniques, methodologies, and workflows are almost sure to vary depending on the context or application. (What used to be called by PMI “Specific Interest Groups” or SIGS.)

❑ **ACTIONABLE ITEM #2-**

Stop trying to “own” or “control” the “body of knowledge.” For those willing to do the research, there are plenty of “real life” examples published by organizations such as [NASA](#). As PRACTITIONERS, we need to be taking responsibility for COMPILING the tools, techniques, methodologies, and workflows and keeping a common “Compilation of Best Tested and Proven Practices” (“CoBTaPP”) current and UPDATED and SHARING that knowledge. This program should be funded and supported by EVERYONE. PRAXIS Framework is an example of a well-organized layout (but their content does not currently meet the criteria of “best tested and proven” practices) as well as the [Guild of Project Controls](#) (which has not been updated and thus is now growing outdated) and our own updated version of the work we originally did for the Guild. “[The Project Controls/PMO Handbook of Best Tested and Proven Practices](#),” which we update QUARTERLY. (Q4 2021 with the updates having just been released)

❑ **ACTIONABLE ITEM #3-**

To ensure SUSTAINABILITY and to support the [UN's 17 “Sustainable Development Goals](#),” (SDG’s) this “Compilation of Best Tested and Proven Practices” (“CoBTaPP”) should be accessible to anyone with a need or interest, FREE OF CHARGE using a Kindle or Wiki-like interface and licensed for use by ANYONE and EVERYONE under

Creative Commons License BY SA. We call it the “Gideon Bible” approach to knowledge management and sharing. There should be a FREE COPY in every hotel room around the world. It also needs to be a “living document” updated quarterly and more frequently if something new is developed or discovered. Charging a SUBSCRIPTION FEE to DOWNLOAD the content and access the TEMPLATES is OK, provided the fee is linked to purchasing power parity. (i.e., Big Mac Index) No legitimate “not for profit” professional society should have 600 million dollars in liquid assets, ESPECIALLY one that is selling a “Body of Knowledge” that has not proven to work and selling what amounts to being nothing more than a “learners permit” and passing it off as a legitimate professional-level credential.

There should NOT be a PMI standard, an AACE standard, an APM/APMG or a PRAXIS standard. There should be a single standard for each application (“Specific Interest Group”), and the professional societies should DIFFERENTIATE themselves through their CREDENTIALING PROGRAMS for each application they purport or aspire to represent.

□ **ACTIONABLE ITEM #4-**

Consistent with the recommendations of both [Glenn Butts](#) and [Bent Flyvbjerg](#), compensation to project teams needs to be based on earned value as it was originally designed as a “pay for performance” or “incentive payment” scheme. This was and remains a very common practice in private sector construction, and has worked for hundreds of years, qualifies as a “best tested and PROVEN” practice. The only challenge is how to adapt this for knowledge work, which is doable using the incremental milestone method rather than the unit in place method.

□ **ACTIONABLE ITEM #5-**

In Construction Management degree programs, much of the program is built around what we in construction know as “[Engineering Economics](#).” Likewise, for our “sustainable development” and “climate change” colleagues, much of today’s Environmental Engineering degree programs are built around “[Environmental Economics](#).” So why are these textbooks not referenced in PMI’s PMBOK or APM/APMG or IPMA or PRAXIS materials? A good start would be a total rewrite of the PMBOK Guide and other standard-setting organizations to base their “Bodies of Knowledge” on the fundamental tools and techniques advocated in most Engineering or Environmental Economics textbooks.

We use two textbooks for all our COMPETENCY DEVELOPMENT/CAPACITY BUILDING courses: [Sullivan, Wickes and Koelling’s Engineering Economics, 17th Edition](#), and the 2nd required textbook is Gary Humphrey’s “[Project Management Using Earned Value Management, 4th Edition](#)”.

The only two professional societies we are aware of that formally embrace engineering economics as the basis underlying their “Bodies of Knowledge” is

AACE with [Jelen's Cost Engineering and Optimization, 3rd Edition](#) and the Guild of Project Controls, which uses [Sullivan, Wickes and Koelling's Engineering Economics, 17th Edition](#).

❑ **ACTIONABLE ITEM #6-**

Stop trying to create a “one size fits all” model. Focus on identifying the “tools and techniques” that we know for a fact have WORKED and then publish them as best tested and proven” practices, INCLUDING the templates that have been DEVELOPED by actual PRACTITIONERS and used on REAL projects. We need fewer ACADEMICS and THEORISTS and more PRACTITIONERS. This means following the advice of Butts and Flyvbjerg and identifying “Master Builders” from different sectors and putting them in charge of compiling the Body of Knowledge for that sector. (PMI started down this path with their Specific Interest Groups or SIGS)

This means we need REAL PRACTITIONERS with “hands-on” experience. We do NOT need any more “Corporate Suits.” “Big 4” B school graduates, “Pure Academics” or, worse yet, Politicians. We need people who have been on the front lines, preferably people who have “skin in the game” where their own money was or is on the line if the projects succeeded or failed. The last thing we need is any of Umberto’s “Useless Idiots.” The test is whether you produce BCWP? If you did not generate BCWP, then all you are is OVERHEAD or what those of us in the military know derisively as “REMF’s”⁴⁴ (For the record, I’ve been informed that the new “official” acronym to replace REMF is PUNTS (Personnel of Utterly No Tactical Significance). But either way, you get the point?

❑ **ACTIONABLE ITEM #7-**

Since the 1960s, construction has been advocating not a SINGLE WBS for each project (as PMI, AACE and the US Government still advocate), but MULTIPLE WBS/CBS structures starting with CSI’s Masterformat (now Omniclass Table 22) and Uniformat. (now Omniclass Table 23) The Norwegian Government recognized the development of MULTIPLE WBS/CBS structures back around 1990-1992 when they researched and developed [Norsok Z-014 WBS/CBS for offshore oil and gas](#), now superseded and replaced with ISO 19008:2016. CSI now has expanded on what was originally Masterformat and Uniformat into a 15 Dimension WBS/CBS coding structure called “[Omniclass](#)” that enables us to filter, sort and organize our project deliverables in a way that makes sense to each major category of STAKEHOLDERS. In addition, instead of developing “Flat File” hierarchical structures, by moving to “Object-Oriented” or “Relational” databases, we have much more flexibility in how we organize our deliverables and their associated costs and other information for different stakeholders.

⁴⁴ Urban Dictionary Definition of REMF- <https://www.urbandictionary.com/define.php?term=REMF>

□ **ACTIONABLE ITEM #8-**

The day of the “exam-only” based credentialing programs has ended. We can see that in the declining growth rates of PMI’s PMP and AACE’s certifications. Why? Because PMI was so quick to over-promise what their PMP validated, and then when those who hold the PMP failed to deliver, the marketplace began to realize they had been sold a lie- a SCAM.

The focus for the future needs to be on DEVELOPING, ASSESSING and VALIDATING COMPETENCY in the individual and BUILDING CAPACITY in the organizations, whether they be OWNER or CONTRACTOR organizations.

Or, as Miguel de Cervantes allegedly told us in Don Quixote (1605), “the proof of the pudding lies in the eating.”⁴⁵ In the world of project management, RESULTS (physical progress as measured by BCWP) is the only thing that counts.

Applying the “Common Sense” test, what can you or should you reasonably expect if you hire me as a contractor to construct a house for you? That I finish the house on time? That the quality of the work meets the technical specifications of the design? That I fulfilled the contractual terms and conditions? That no one got killed or injured on the project? What else? If I use YOUR design and specifications, can you hold me accountable if the house meets your intended needs or purpose? If you hired me to DESIGN and BUILD the house, then can you hold me accountable if the house meets your needs?

As someone paying for TRAINING, what do YOU expect at the completion of the TRAINING? What RESULTS do you expect? As an HR professional? As a boss, who sent your people to the training? As a person sitting in the training? Think about what RESULTS training should be delivering and how to MEASURE and VALIDATE those results?

Having been doing this for 30 plus years, these are the six standards we have adopted and have a standing challenge to benchmark what the graduates of our six-month-long, graduate-level courses can and have done vs. what the graduates of any other training provider can or have done.

⁴⁵ Cervantes in Don Quixote (1400) <https://www.phrases.org.uk/meanings/proof-of-the-pudding.html>

**We design and deliver all our courses based on the following
 6 SPECIFICATIONS or STANDARDS:**

- 1) DESIGN our course content using the ILO’s “Regional Model Competency Standards” <https://tinyurl.com/yzqromj2>
- 2) DESIGN our courses using the IOWA STATE Revised Blooms Taxonomy- <https://goo.gl/HNcuv8>
- 3) DESIGN our courses to develop the SKILLS that employers are SEEKING and VALUE- <https://goo.gl/U61YxY>
- 4) DELIVER our courses in a way that FULFILLS all 7 of the Project Based Learning attributes- <https://tinyurl.com/yyss2dyg>
- 5) DELIVER our courses in a way that FULFILLS all 7 of the Project Based Teaching attributes- <https://tinyurl.com/y4mr6hnd>
- 6) MEASURE the EFFECTIVENESS of our training using all 4 Levels of Kirkpatrick- <https://goo.gl/8YpZEA>

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<https://creativecommons.org/licenses/by/4.0/legalcode>

Figure 16- “Best in Class” Competency Development Standards and Specification

These represent what we believe to be “Best in Class” standards, and consistent with the five basic tenets of the Scientific Method, we encourage people to come forward with OTHER standards if you believe you have found something better than what we have adopted and advocate.

❑ ACTIONABLE ITEM #9-

As advocated for over ten years by both Glen Butts from NASA⁴⁶ and Prof. Bent Flyvbjerg⁴⁷, we need to start holding project SPONSORS (in their roles as Asset and Operations Managers), Project MANAGERS and Project CONTROLLERS (PMO’s) both criminally and financially ACCOUNTABLE for their misfeasance, malfeasance, or nonfeasance.

We are starting to see this starting to happen in the nuclear debacle that destroyed South Carolina owners SCANA, its subsidiary, South Carolina Electric & Gas, and state-owned utility Santee Cooper,

“As evidenced by the recent filing of both criminal and civil charges against SCANA Corp. CEO Kevin Marsh and SCANA Executive Vice President Stephen Byrne signed a deal Tuesday agreeing to plead guilty to felony fraud charges in federal and state court.

⁴⁶ Butts, Glen (2009, 2010) “Mega Projects-A History of Denial” <https://www.slideshare.net/NASAPMC/glennbutts-mega-projects-estimates>

⁴⁷ Flyvbjerg, Bent (2017) “Sue the Forecaster?” <https://www.linkedin.com/pulse/sue-forecaster-bent-flyvbjerg-%E5%82%85%E4%BB%A5%E6%96%8C-/>

Marsh pleads guilty to conspiracy to commit wire and mail fraud and is facing 18-36 months in federal prison and will have to pay \$5 million in restitution, with \$3 million of it due before he is sentenced.”⁴⁸

We also see this in the loss of electricity in Texas in the February of 2021 ice storm.

“Texas county DA opens criminal investigation into whether any person or entity should face charges for last week’s deadly power outages

- *José Garza, the District Attorney for Travis County - which includes Austin, did not indicate if the Electric Reliability Council of Texas would be targeted*
- *Top ERCOT board leaders said on Tuesday they will resign after more than 4 million customers lost electricity during the winter storm last week*
- *Republican Gov. Greg Abbott has largely blamed the outages on ERCOT and called for investigations*
- *This week, the State Legislature is set to begin hearings amid calls for reform of its deregulated electricity market.”⁴⁹*

The starting point is for PMI, AACE, APM/APMG, and other professional societies wanting to raise the professional image of Project Management and Project Managers is to make the acceptance of “Death March” projects an ETHICAL VIOLATION (akin to the Hippocratic Oath “Do no harm?”). The Guild of Project Controls adapted the Model Code of Ethics drafted by the Society of Compliance and Ethics Practitioners (SCCE) and, paying close attention to Paragraph R1.4, outlines four steps to follow if we are faced with accepting projects that we have reason to believe will fail due to misfeasance, malfeasance or nonfeasance on the part of others.

❑ **ACTIONABLE ITEM #10-**

As a follow up to the Four Levels of Strategy dating back 2500 years to Sun Tzu, and having been validated around 1985 by R. Max Wideman as being applicable to project management as shown in Figure 3 and based on the “Best Tested and PROVEN” model that has been in use since 1955 by “Big Oil,” as adopted and validated by AACE in their “[Total Cost Management Framework](#),” and the Guild of Project Controls in their “[Compendium of Best Tested and Proven Practices](#),” we have long been advocating for the Integration of ISO 55000 and a CORRECTED and UPDATED version of ISO 21500.⁵⁰

Additional references supporting what is being advocated in Figure 17 is this 10-minute video from the Institute of Asset Management- “[The Asset Management Journey](#)” and these two PAS 55 documents-

⁴⁸ Collins, Jeff (2020) ABC News Article <https://abcnews.go.com/US/wireStory/executive-faces-prison-time-sc-nuclear-debacle-74400377>

⁴⁹ By [ADAM SCHRADER FOR DAILYMAIL.COM](#) and [ASSOCIATED PRESS](#)

PUBLISHED: 22:38 EST, 23 February 2021 | UPDATED: 03:18 EST, 24 February 2021

⁵⁰ Giammalvo Paul (2021) <https://pmworldlibrary.net/wp-content/uploads/2021/02/pmwj102-Feb2021-Giammalvo-should-we-challenge-or-cancel-iso-21500-2020.pdf>

- 1) [PAS 55 Part 1](#) - Specification for the optimized management of physical assets
- 2) [PAS 55 Part 2](#) - Guidelines for the application of PAS 55-1

But the best way to CONFIRM the validity of this model is to look at the Integrated Asset, Portfolio, Program (Operations) and Project Management methodology that is in use by all the major and nearly all national oil and gas companies. This was made public by Esso or Diamond Shamrock Oil circa 1955 and standing as evidence it WORKS, is still in use today, after 67+ years?

Given what is shown in Figure 17 has been ADAPTED from the above references, we believe there is ample evidence that it meets all five criteria of the Scientific Method and thus needs to be EMBRACED IMMEDIATELY as being a “best tested and PROVEN” practice.

Of specific concern right now, we are indirectly involved in a heated debate between a PMI Chapter and a large National Oil company. Contrary to the principle of “Do no harm,” the PMI chapter is aggressively lobbying the oil company to adopt Agile, which is not only inappropriate for most oil and gas projects⁵¹ but has not proven to work well even for IT projects while the National Oil Company already has a model build around BP’s version of the Asset Life Span which we know for a fact has in the past, is now and is likely to continue to work.

⁵¹ Giammalvo, Paul (2019) “Agile is not a Subset of Project Management” <https://pmworldlibrary.net/wp-content/uploads/2019/03/pmwj80-Apr2019-Giammalvo-Agile-is-not-a-subset-of-project-management.pdf>

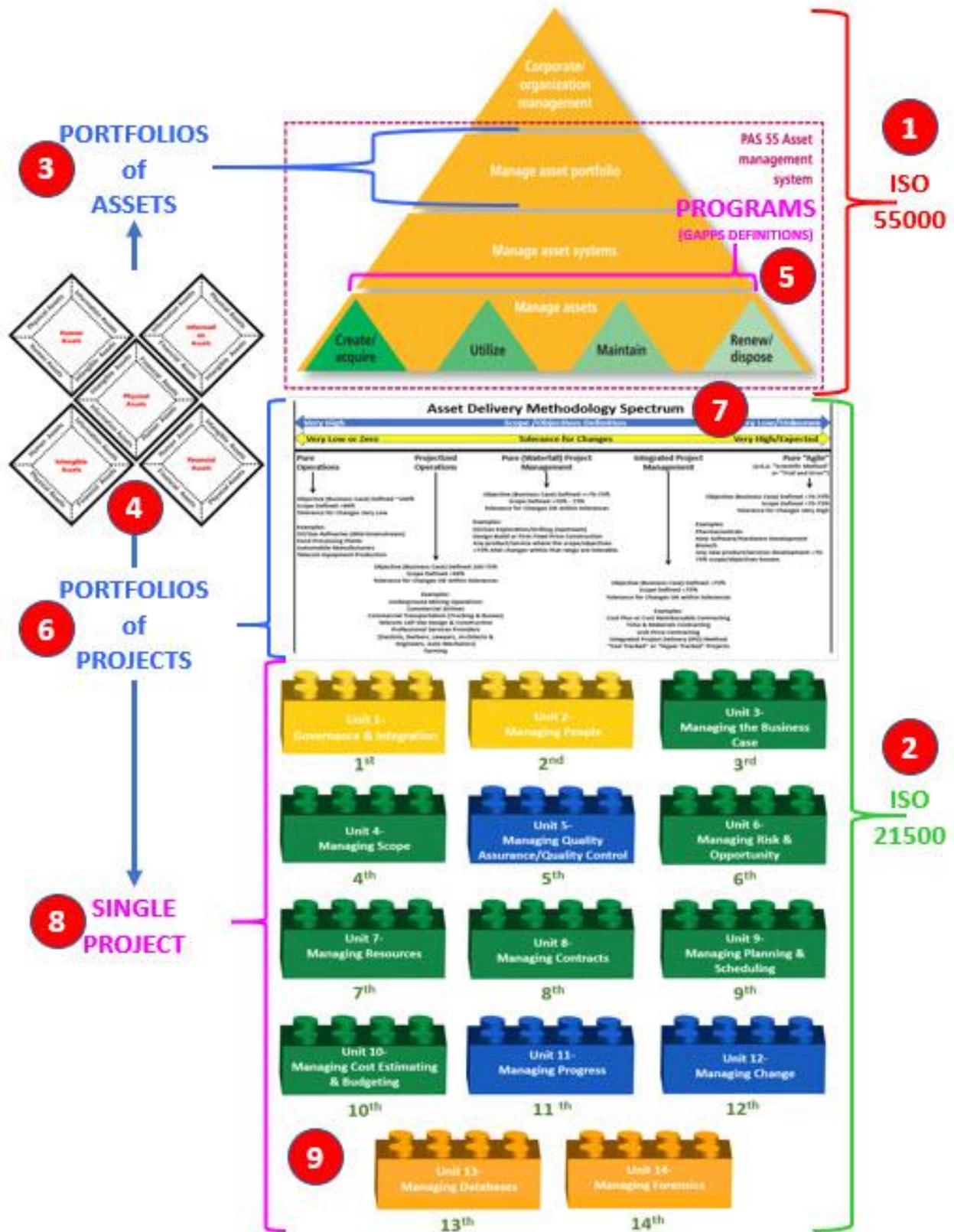


Figure 17- Proposed Integration of ISO 55000 with a REVISED ISO 21500⁵²

⁵² Giammalvo et al, (2021) Project Controls Handbook of Best Tested and Proven Practices, Unit 1- Governance and Integration <https://build-project-management-competency.com/1-4-1-1-unit-1/>

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Dr. Paul D. Giammalvo, CDT, CCE (#1240), MScPM, MRICS, is a Senior Technical Advisor (Project Management) to PT Mitratata Citragraha. (PTMC), Jakarta, Indonesia. www.build-project-management-competency.com. He is noted for the development and delivery of graduate level, blended learning curricula designed for the mid-career path, English as Second Language (ESL) professionals to develop competency in the local practitioner and build capacity for the local organizations. For 25+ years, he has been developing and delivering Project Management training and consulting throughout South and Eastern Asia Pacific, the Middle East, West Africa, and Europe.

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, the UN Projects Office, 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 Ph.D. in Project and Program Management through the Institute Supérieur De Gestion Industrielle (ISGI) and Ecole Supérieure De Commerce De Lille (ESC-Lille) under the supervision of Professor Christophe Bredillet. “Dr. PDG” can be contacted at pauldgphd@gmail.com.

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