

**Foreign Military Sales: Continuous Process Improvement (CPI) as  
a Mechanism for Building International Partnerships Capable of  
Securing the United States' Vital Interests**

**Stacy Poto**



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## Abstract

Continuous Process Improvement (CPI) has often been used in the public sector to make incremental process changes to improve efficiency and quality. This same approach could also be used in the DoD to help identify real-time improvement opportunities. This research will analyze if there is a benefit in utilizing a CPI Board (CPIB) to build customer relationships more effectively and improve timeliness and accuracy within the Foreign Military Sales (FMS), and ultimately better develop positive strategic partnerships between the U.S. and its allied partners and continue to maintain a strong industrial base. Accelerating the defense acquisition process to help get end items to the U.S.'s end users, especially due to the ongoing war efforts in the world today has been a challenge. It is of great importance to recognize the need to help streamline and accelerate the defense acquisition process to ensure that our warfighters can receive critical end items especially in urgent times of need. The same governing principles to streamline the DoD acquisition process must therefore also flow to the FMS process.

FMS is the U.S. Government's program for transferring defense articles, services, and training to our international partners and organizations. The U.S. Department of State oversees the FMS program, which is implemented by the U.S. DoD through the Defense Security Cooperation Agency (DSCA). These procurements provide several benefits to the United States' national security including creating built-in interoperability with allies and partners, lowering unit costs to the U.S. military, expanding regional influence, and maintaining the U.S.'s industrial base and war reserves during conflict (Hallman, 2020, Para 3).

Although beneficial to the U.S., the FMS program is a unique and more complicated process than traditional acquisitions as it includes a need for continual communication of many stakeholders within the U.S and foreign allies and partner nations to develop requirements. One of the biggest complaints of the process is that the U.S. is not adequately addressing our allied partner nations and allies' needs. As such, the U.S. Government habitually provides false impressions, contributing to broken relationships rather than fostering positive and enduring

connections with these countries. CPI methods and tools can help to better align the process to meet our end user's needs and could create efficiencies that would lend to better partnerships with our allied partners and further strengthen our security interests as well. The paper concludes that CPI will only have sustainable long-term impacts if the senior leadership at the DoD commits to the process and champions its success.

The Government and Department of Defense have long been working to streamline the defense acquisition process as it has been recognized that efficiencies can be gained to get the required capabilities to our warfighters and end users for test and evaluation purposes. However, with emerging and ongoing geopolitical conflicts in the world that has now been coupled with the war efforts currently going on in the Ukraine, it has been realized that these same types of principles need to flow more quickly to FMS programs. The programs need to be managed more efficiently to support larger scope benefits beyond acquisition including effectively maintaining the U.S.'s National Security Strategy (NSS) and utilizing partnerships with our allies to not deter from defense items depleting our own industrial base. CPI initiatives are mechanisms to support these improvements.

CPI has been long been implemented within industry and has been successful in improving efficiency and quality. The same type of methods could potentially also be used in the DoD to help identify opportunities for improvement real time and not ahead of a specific requirement or need. This research will analyze if there is a benefit in utilizing a CPIB to positively build customer relationships and timelines within the FMS process. The primary research means of this qualitative descriptive study will include a special collections of peer reviewed papers, book publications, DoD memos and directives, the Defense Acquisition University (DAU) sources, and other DoD/other government publications.

## Chapter 1 – Introduction

### Background

The Defense Security Cooperation Agency’s (DSCA) “mission is to advance U.S. Defense and foreign policy interests by building the capacity of foreign partners in order to encourage and enable allies and partners to respond to shared challenges” (Defense Security Cooperation Agency Fast Facts 2023 Fiscal Year 2022, 2023, Para 1). DCSA states its vision is to

lead the security cooperation workforce in delivering effective, enduring, and timely solutions and serve as the source for Security Cooperation (SC) expertise and innovation for our defense and foreign policy stakeholders to ensure the United States remains the global partner of choice (Defense Security Cooperation Agency Fast Facts 2023 Fiscal Year 2022, 2023, P.3).

The Foreign Military Sales (FMS) process however currently takes approximately two (2) years to complete from the time the partner nation actions a need, requirements are developed, agreements are signed, and funding is received. This timeline does not account for the additional 18–24-month timeline to procure and deliver the end items for most defense items and the appropriate stakeholders are not always involved in the process which has negative impacts to outcomes.

The process has been “cited as a “pain point by American partners and allies” (Lopez, 2023, Para 1). Subsequently after some research and identification of six (6) target areas to fix the process, the Department of the Army issued a tasking memo, signed by Lieutenant General Walter E. Piatt, Director of the Army Staff entitled, “Army Foreign Military Sales (FMS) Reform Efforts” in July 2023 (Lopez, 2023, Para 1). In the memo Army organizations were “tasked to support, lead and execute the Army FMS Reform Initiatives led by the Under Secretary of the Army, HON Gabe Camarillo through the implementation of a Continuous Process Improvement Board (CPIB)” (Lopez, 2023, Para 1).

This came after the Secretary of Defense in 2022, directed the Department of Defense (DoD) to identify potential improvements to the delivery timelines of capabilities through the Foreign Military Sales (FMS) program. As such a Tiger Team was formed. “The efforts of the Tiger Team and the Department’s commitment to improve the FMS system were purposed to advance the direction of the 2022 National Defense Strategy (NDS) and to break down barriers to working with allies and partners” (Department of Defense Unveils, 2023, Para 1).

The Deputy Under Secretary Defense for Policy (DUSD(P)), in collaboration with USD Acquisition & Sustainment (A&S), co-led the DoD FMS Tiger Team (TT) to identify specific challenges within the FMS system and propose solutions to improve capability delivery to allied “partners” (Lopez, 2023, Para 10).

“The Department of Army was designated as Office of Primary Responsibility or Office of Coordinating Responsibility for 50 of the 85 TT recommendations” (Department of Defense Inspector General, 2022, P.1). Now, with the TT recommendations, coupled with lessons learned from a historical review and audit of reform efforts, the establishment of the DoD FMS continuous Process Improvement Board (CPIB) was recently formed in June 2023.

“The forming of the CPIB, has now led to a Secretary of the Army endorsed review of the Army Security Assistance Enterprise (ASAE) and opportunities to improve the efficiency and effectiveness of Army FMS. From the initial analysis, an Army FMS Reform Initiative has been established that will execute along six (6) Lines of Effort (LOEs) focused on resolving challenges across the Army Security Cooperation and Security Assistance ecosystem and improving FMS outcomes” (Department of Defense Unveils Comprehensive Recommendations to Strengthen Foreign Military Sales, 2023, Para 1).

“The Executing Body for this reform effort will be chaired by the Deputy Assistant Secretary of the Army for Defense Exports and Cooperation (DASA (DE&C))” (Department of Defense Inspector General, 2022, p. 1). Each LOE was assigned a dedicated team and lead and “will be required to execute their respective LOE. All of which will be monitored to determine if

the CPIB will be an effective approach to solve the current problems with the FMS process” (Department of Defense Unveils Comprehensive Recommendations to Strengthen Foreign Military Sales, 2023, Para 1).

## Problem Statement

The FMS process inadequately addresses the needs and priorities of the United States’ allies and partner nations, resulting in false impressions and broken relationships. “The State Department and the Defense Department have just completed mutually complementary reviews of the U.S. Foreign Military Sales (FMS) process” (Saab, Horvath, & Jager, 2023, Para. 1). These reviews “identify gaps in the system but also propose ways to retool and streamline the entire enterprise to make it more effective and efficient” (para. 1). Specifically, and most alarming is that “Eastern Europe is looking to restock defense weapons in the wake of the Ukraine war, and while they would normally turn to the U.S. and that countries such as South Korea are closing in on multi-billion-dollar deals promising they can deliver weapons faster and cheaper” (Smith, 2023, P. 1). While the current FMS process is highly procedural for good reasons, a side effect of the process is considered to be “the lack of collaboration and transparency with allied nations that can negatively impact their overall experience” (Smith, 2023, P.1). The realization that this problem exists is evidenced by feedback received from the stakeholders in the FMS process, through DoD initiated audit findings and especially due to the ongoing war efforts in the Ukraine and the need for increased U.S. support.

## Purpose of This Study

The purpose of this qualitative descriptive case study is to describe the efficacy of a Department of Defense (DoD) instituted FMS Continuous Process Improvement Board (CPIB) to establish metrics and create accountability for stakeholders involved in the process. During

this research, I plan on leveraging the perspectives and theories that have been used similarly in private industry and compare those results utilizing CPI instituted measures to the LOEs that require improvements in the FMS process. I will research the applications, metrics and accountability measures and determine if the DoD's mandated CPIB can affect similar changes and be successful in making improvements within the current FMS process. The intended audience for this research is the DoD and the entire U.S. Army international community.

### Significance of This Research

“An organization that is proactively looking for opportunities to improve will not only be at the forefront in terms of effectiveness and efficiency; it will be able to describe the steps they are taking on a monthly, weekly and daily basis to achieve them (through goals, objectives, and metrics)” (Cole, 2010, P.1). With that in mind, if the DoD can include accurate and definitive information into the system at the forefront, it will be more likely to receive a positive outcome on the backend. Incorporating CPIB similarly to those instituted in private industry could significantly eliminate waste and variation from the DoD's existing FMS process flow and structure. In doing so, the DoD could move away from a status quo mentality through refocused time, energy, and improved stakeholder relationships, benefiting not only the U.S. war efforts, but also those of its partner and allied nations. All of which have far-reaching benefits in supporting the U.S.'s National Security and Military strategies.

The significant and original contribution of this research will provide information to the DoD and the international community to make a judgement on the benefits of using lean process improvement techniques and determine how or if the current CPI instituted process for FMS should be maintained. The findings of this research could therefore potentially positively influence the DoD's dedicated resources and desire to maintain the approach of the CPIB. In

doing so, it could become a steadfast process to make the necessary improvements and changes to the FMS process, where positive and long-term benefits could be reaped for both the U.S., and it's allied and partner nations. The CPI mechanism could also potentially trickle down to other processes that also need improvement in the DoD, because of the research conducted.

## Overview of the Research Methodology

The research methodology is based upon published literature, dissertations and case studies, which are mainly derived through process improvements applied within the public sector. Research was conducted through searches in various libraries to include the Defense Acquisition University (DAU) virtual research library, DTIC (Defense Technical Information Center), ProQuest, Google Scholar, Naval Postgraduate School, Research Gate and the Elton B. Stephens Company (EBSCO) research platform.

## Research Questions

1. What are the potential benefits of a continuous process improvement program in the context of FMS?
2. What mechanisms of a continuous process improvement program could enhance FMS programs performance?
3. How can a continuous process improvement board oversee CPI implementation in ways that enhance FMS programs positive outcomes?

## Objectives and Outcomes

I would expect upon conducting this research that the DoD's implemented CPI board will generate positive effects and significantly improve the FMS process, ultimately resulting in establishing a direct focus on increased and frequent communication to ensure that an end user's requirements and priorities are well defined and process timelines are reduced. This expected

outcome is tied directly to the fact that CPI is linked to developing actionable plans to achieve better results in streamlining processes and removing waste. With the development of the current six (6) LOEs constructed for FMS process improvements and with dedicated DoD teams assigned to each LOE, along with established metrics and accountability measures in place, I would expect that the research and case studies would support a positive trend in influencing the needed changes within the FMS process, similar to the positive effects of process improvement initiatives implemented in other organizations. However, initial research has shown that there is “some overly enthusiastic media reporting to the contrary and the Pentagon’s adoption of the Tiger team findings not providing a guarantee that any of these recommendations will become reality” (Lee, 2023, P.1). This is because “the Secretary of Defense instructed the components to move forward with implementation, but the agencies will retain discretion on how to best move forward, and certain aspects of the Tiger team recommendations may be restructured or deferred” (Lee, 2023, P. 1). This research could therefore greatly alter expected outcomes for gaining efficiencies through use of a CPI board to streamline the DoD’s FMS process.

## Limitations

Information obtained will be limited to the data and literature that is currently available in the published reports, theses, and dissertations, specifically within the libraries and resources made available for this research. The research will also strictly apply to the efficacy of the FMS process for the Department of Defense, but hone mainly in on the Army service as opposed to the efforts of the other services. The second limitation is the scope of the discussions and breadth of the research conducted due to inexperience in primary data collection and producing academic papers of a large size, as compared to the works of experienced scholars. My research methodology may not have included or covered all appropriate search terms to cover the topic

from all points of view. The third limitation is the lack of previous studies in the research area. It is more likely that research conducted on this topic will have been conducted and studied by the public sector that tend to employ more consistent and frequent lean process improvement controls, than experienced in the Government sector, whereby processes and regulations tend to impede instituting streamlined approaches. Finally, the CPI being implemented in the DoD is considered a relatively new strategy being employed and the data to support final conclusions or recommendations may be limited.

Key assumptions that were made in designing this research paper are as follows:

1. The research will provide for detailed information to adequately answer the problem statement and research questions.
  2. The data will be definitive in nature to address how continuous process improvement boards have created efficiencies in organizations.
- Further assumptions will be added upon conducting the research.

Potential design flaws in the research methodology include the inability for the researcher to apply CPI results/successes directly to strictly Government entities and specifically the Army.

While my initial research indicates there are plenty of sources of information regarding continuous process improvement boards within the public sector, there may not be specific data that applies directly to the Federal Government and/or Department of Defense. There may also not be comparable processes that involve the same level of complexities with involvement of international counterparts and geopolitical issues similar in nature to the FMS process.

If I had the opportunity to change the methodology I selected, I would choose to do both a case and interview study type of research project, in which I could quantify the results of the employed LOE's by contacting the leads and the stakeholders who owned the process. It would be my desire to report back the level of efficacy and the results of each of the team's efforts in creating efficiencies and improve the FMS process. I could then quantify the results by LOE and

by each team lead on how successful their efforts were to prioritize and define user requirements and reduce process time. I would use the metrics obtained through the data and feedback received utilizing the CPI process, analyze the data by comparing initial timelines and feedback, then define and plot any improvement trends from the start of the process to the current time. This would allow me to more definitively and absolutely with support from the raw data obtained to quantify how effective each team was in utilizing CPI process to create efficiencies in the FMS process. A follow on-study could then also be conducted to determine if the efficiencies were maintained over time as well.

## Chapter 2 – Literature Review

### Introduction

In order, to adequately address the research questions posed in Chapter 1, this chapter will provide a review of the literature associated with an organization's desire to employ and manage CPI boards and tools, the types of programs and initiatives that benefit from CPI and a review of the role and perspectives of stakeholders on outcomes, in the current state of the FMS process. The literature review consisted of internet searches of scholarly and peer reviewed articles/journals utilizing ProQuest, Google Scholar, DTIC, DAU library, ResearchGate and EbscoHost including published dissertations and theses. The DoD Inspector General and Government Accountability Office reports were obtained from DTIC. The Army Directives were obtained from the Department of Army (DA) publications database available on the web. The search terms included phrases such as "Foreign Military Sales Process Relationships, Foreign Military Sales Process, Foreign Military Sales Stakeholder relationships, Continuous Process Improvements in Military Organizations, Benefits of Continuous Process Improvements in Organizations, Effectiveness of Continuous Process Improvements in Organizations,

Implementing Continuous Process Improvements, How to Employ Lean Processes in Organizations.”

## Literature Review

The Government Accountability Office (GAO) performed a study per the direction of the House and Senate committees to assess the FMS process in 2017. The study assessed the extent to which DoD has met FMS timeliness goals, workload and workforce trends and actions DOD has taken to address recommendations to improve the FMS process made by GAO and others.

The GAO analyzed performance data for

FMS from 2009 to 2016, workforce and workload data from the military departments and reviewed relevant DoD regulations and policies for FMS and interviewed DoD officials. The results were that DOD was not meeting two out of three performance metrics for the timely processing of FMS requests and does not collect data for the third metric. The first metric was tracking the time it takes from the receipt of a country’s request for an item to when a Letter of Offer and Acceptance (LOA) is sent to the partner country for approval. The third metric is the time DOD takes to deliver the first item to the recipient country (GAO, 2017, P.2).

A strength of the study is the amount of data accumulated over 7 years of FMS work and that DOD officials were able to conclude several factors that adversely affect their ability to meet the timeliness goals, such as changing customer requirements or delays due to policy concerns regarding sales. A weakness of the study however is that DoD has not collected data on one metric and has not identified the underlying causes for not meeting its goals, it does not know the extent to which these or other factors are impacting program delivery.

The Department of Defense Inspector General conducted an audit in 2020 to determine whether the DoD properly handled foreign partner requirements with the Defense Security Cooperation Agency (DSCA), Military Departments, and other organizations and whether the process was being conducted in an efficient manner. The agency reviewed a

nonstatistical sample of 80 DoD FMS cases, valued at \$16.3 billion, that were in an open status as of March 2019 and managed by the Military Department Implementing Agencies. The sample focused on 70 delayed cases to determine the cause of the delays and included 10 cases developed within the DSCA processing standard to determine why the cases were processed in a timely manner from March 2019 through August 2020. The audit found that although the DoD coordinated foreign partner requirements with the DSCA, Military Departments, and other organizations, the Military Department Implementing Agencies exceeded the DSCA's processing standards for how long it should take to develop FMS agreements for all the cases reviewed (Department of Defense Inspector General, 2020, P.55).

The congressional reporting requirement that prompted this audit stated that “the committee was aware of concerns raised by U.S. military leaders, the defense industry, and foreign partners that the DoD FMS process is slow, cumbersome, and overly complicated” (2020, P. 1). The results of this audit presented similar concerns with the DoD FMS agreement development process as was found in the congressional request. “The congressional reporting requirement also emphasized that an efficient, thorough, and effective FMS process is vital to U.S. foreign policy and national security and contributes to the health of the U.S. defense industrial base” (2020, P.4). The strength of the audit was that it encompassed a large sample size of delayed cases that were distributed amongst all the various military services and was recently conducted within the last 3 years.

The Department of Defense Inspector General subsequently conducted a follow-on audit of the DoD Foreign Military Sales Process in 2022 to determine whether the DoD managed the acquisition of defense articles and services to meet partner country FMS requirements and whether the metrics used by the DoD components maximize the results of the FMS acquisition process. The audit was a result of a reporting requirement contained in “House Report 115-676, to accompany the National Defense Authorization Act for FY 2019 which establishes quarterly and annual congressional reporting requirements on the statuses of open FMS cases and the

associated procurements” ( Department of Defense Inspector General, 2022, P. i). This was the second audit that the DoD Inspector General issued in response to the reporting requirement.

The first report addressed the DoD FMS agreement development process.

Of the 18 FMS cases reviewed, none of them had acquisition-related delays that “negatively affected the agreed-upon period of performance for the delivery of defense articles and services. Instead, there were either no delays with the agreed-upon period of performance or the delays resulted from circumstances outside the control of the Military Department IAs” (2022, P. i). Specifically, no delays occurred for “eight FMS cases as a result of the DoD FMS acquisition process, but delays occurred for seven FMS cases because foreign partners changed requirements, and for the three other FMS cases delays occurred because of contractor-related issues” (2022, P. i). Although the audits are required, a significant weakness of the audit was that the DoD did not meet the objectives and standards required to report FMS to congress.

Specifically, the Military Department IAs used

inconsistent processes to track and report FMS acquisitions and we identified problems with Section 887 reporting for all 18 FMS cases reviewed. The Section 887 reporting problems included inaccurate, incomplete, and unsupported data. In addition, the Office of the Under Secretary of Defense for Acquisition and Sustainment did not obtain Section 887 reporting input from the Military Department IAs in a timely manner (Department of Defense Inspector General, 2022, P.ii).

As a result, the “DoD Section 887 reporting inaccurately reflected the status of the DoD FMS acquisition process and was not submitted to Congress in a timely manner” (2022. P.ii).

The inability to gather this information directly impacts what was reported to Congress and leads to information being reported about deliverables for Foreign Military Sales. The reporting piece displays that there are issues that need to be addressed within the process and that there should be a closer look taken. This is the reason that the Government Accountability Office (GAO) conducted an audit in 2023. They wanted to examine the following:

(1) DOD's allocation of funding for Section 333 projects from 2018 through 2022, (2) the extent to which DOD delivered Section 333 assistance to partner nations as scheduled, and (3) the findings of DOD's Section 333 project evaluations and the extent to which the evaluations met criteria (GAO Highlights, 2023, P. 1).

The study revealed that DoD delivered most Section 333 project activities after the estimated dates but does not monitor aggregate timeliness and has not analyzed the causes of delays. GAO's analysis of DOD data found that as of the end of

FY 2022, 75 percent of deliveries were delayed relative to DOD's estimated dates. DoD monitors individual deliveries' timeliness but has not established a performance measure, such as a targeted percentage, that would let it regularly assess aggregate timeliness. Also, DOD has not systematically identified and analyzed factors contributing to delivery delays (GAO Highlights, 2023, P.1).

The audit points out that the DoD is lacking in setting specific performance measures. The agency therefore cannot appropriately analyze the areas that were causing delays. This inability also prevents the DoD from developing measures to correct these issues and work to make improvements in the FMS process.

Yoo, Duane, & Timothy, 2009 conducted a qualitative research study on how specific FMS processes can be improved through the application of logistics best practices and initiatives utilizing both organic and commercial capabilities as a means of CPI. The data was collected through various sources including the "2006 Historical Facts Handbook from the Defense Security Cooperation Agency, studies of Navy and AirForce programs, the Defense Acquisition University's (DAU) ten Integrated Logistics Systems (ILS) elements, the Surface Deployment and Distribution Command (SDDC) and information sourced from the Naval Aviation Logistics Process Improvement Team (LPIT)" (Yoo, Duane, & Timothy, 2009, P.4).

The analysis concluded that with increased processes for FMS that the "Government has not only the capability to effectively improve FMS supportability but also create new or follow-

on FMS agreements, because of the better support to its partner nations” (2009, P.5). The strength of the literature was that it identified the need for CPI within the FMS process and identified how a specific CPI instrument could improve the logistical supportability piece of it. There were minimal weaknesses, but one included the fact that the literature did not provide a broad perspective of the entire FMS process and was limited to research within the Navy and AirForce. The research was also obtained in 2006 and evaluated in 2009 and may not be considered recent enough to establish current validity metrics.

MAJ Ryan Herman conducted a qualitative study with Air Force (AF) senior leaders in 2017 based upon their attempts to implement an array of types of process models to create efficiencies to support mission requirements. Herman’s qualitative research study served to answer two questions.

(1) if AF leaders desire a symbiotic relationship between efficiency and effectiveness to maintain relevance as a military force, why has it been so difficult to facilitate cultural transformation to adopt AF process improvement ideologies? and (2) In what areas can the AF improve to extract the benefits of this relationship with the contemporary version of AF process improvement—CPI (Herman, 2017, P.9).

Multiple formal interviews were conducted by the researcher, in addition to hundreds of informal conversations, where after analyzing the responses, several themes emerged with how to implement CPI within the AF. It is summarized as follows:

an organization that has quality processes will minimize cost, reduce risk, curtail waste, and make it easier for the members of that organization to perform effectively. This shift in ideology however would need to take place in the AF CPI model. Furthermore, Cost and manpower savings need to be a by-product of a process improvement model that concentrates on empowering Airmen to be more effective and efficient in accomplishing their mission-related tasks. It was concluded that when these areas were considered and employed in conjunction, these items provide the best opportunity to leverage CPI ideologies and processes successfully for the benefit of Airmen to accomplish AF missions (Herman, 2017, P.9).

A strength of the study is that it captured all levels of military with the AirForce to include civilian personnel, but a weakness of the study was that the study was conducted through informal interviews which may have not provided for consistency between participants.

(Kovach, Cudney, & Elrod, 2011) conducted a qualitative study by obtaining data across multiple industries within the U.S. to identify continuous improvement techniques that have been successfully implemented within their organizations. The study “examined the perceived effectiveness and the challenges/reasons for failure associated with these techniques, as well as determined whether implementation and effectiveness differ between types of operations (i.e. manufacturing versus service)” (Kovach, Cudney, & Elrod, 2011, P.1).

A total of 187 practitioners participated in the study, resulting in a 75 percent response rate (i.e., 73 responses were collected for survey items regarding the successful implementation of lean methods and 114 responses were collected for survey items regarding the use of quality tools). Surveys with an excessive number of missing responses were removed from the study, which reduced the final sample size to 157 responses (i.e., 73 for lean methods and 84 for quality tools) (2011, P. 4).

The results of this study suggest that there are some continuous improvement methods that are more well received and implemented than others. The common themes that emerged from the investigation regarding the challenges/reasons for failure associated with continuous improvement techniques provide support that the use and effectiveness of different tools varies between applications in different environments, as well as how various organizational factors, which are often hard to control, have a direct effect on the success of these initiatives” (Kovach, Cudney, & Elrod, 2011, P.10). This study focused on the enduring problems that could arise with CPI implementation so that organizations could be aware of the issues prior to beginning an implementation. The research’s strength that covers various industries and it also pinpoints the tools that have been found to be effective in certain situations and also brought about some of the

challenges that leaders should try to understand when implementing continuous process improvement techniques.

(Unzueta, Esnaola, & Eguren, 2020) conducted a qualitative research study that described “the efficacy of a continuous process improvement process system through the use of an established continuous improvement process assessment system” (Unzueta, Esnaola, & Eguren, 2020, P.1). The case study conducted covered a two-year period that included the

managers of 8 units within a mature industrial small and medium sized capital goods company. The assessment identified “critical elements and related routines for effective execution of the CIP in the company while the evaluation system allowed for a visualization of the company’s CI maturity level progression which can be applied to any type of company and serves to define future actions for its evolution (2020, P.1).

The current field research shows that the Continuous Improvement Process (CIP) that was developed and implemented was able to successfully

develop improvement routines, advance the CI maturity level and develop the basis of an organizational CI culture. The results also showed that Management, middle management and employees developed several improvement routines after the CPI was implemented. The application of the CIP allowed for acquiring and assimilating improvement routines and reinforcing the key elements of the CIM (2020, P.17).

Furthermore, being able to reinforce the teamwork and involvement of the promoter team made it possible to “define and launch new projects and create improvement teams to respond to the problems identified in the evaluation and diagnosis” (2020. P.17). The study results however indicated that participation of management through the CI leader was key. A strength of the study was that the same process was replicated in multiple areas for consistency to see how the changes would affect each business unit. A weakness of the study was that the company studied was located outside the United States (Spain).

(Day, 2015) performed qualitative research through data obtained from a random sample survey to research the barriers to CPI implementation in a military organization. The survey

participants were members of the United States Air Force either as an active-duty military member or government civilian assigned to Air Mobility Command (AMC).

Through the Literature Review, 35 barriers were identified in organizations implementing continuous process improvement. “Using an affinity diagram, the 35 were reduced to 12 for inclusion in the initial model. The results indicated that the top ranked barrier, “which is a significant, positive predictor of Change Support and the only significant, positive predictor of Institutionalization, is Senior Management/Leadership Commitment” (2015, P.11). Other barriers identified through the research included culture, structure, measurement/metrics, change management/implementation strategy and motivation for change. A strength of the study was that studied military organizations, but a weakness was that it was limited to the AirForce in AMC and did not include a broader range of military organizations, or government agencies.

(Hamm, 2013) conducted a qualitative and exploratory study of

eighteen participants who were selected from a pool of 146 senior leaders with each participant having at least 15 years’ experience within the DoD. Participants in the study were civil servants or military members serving in leadership positions during the time of the study or had served in leadership positions prior to the study (Hamm, 2013, P.2).

The collection methodology for the study included “Seidman’s three-phase interview approach used to explore the experiences, perceptions, and insights of senior leaders through open-ended questions provided to participants through semi-structured, in-depth interviews” (2013, P.2). The research concluded up to three quarters of the attempts to implement change initiatives fail because senior leaders “do not align their behaviors and organizational culture change and that successful implementation of continuous process improvement increases efficiency and effectiveness within organizations” (2013, p.1). The strength of the study was that it involved leaders within a military organization and coincides with more of the organizational dynamic of the Department of Defense and Army, where processes like FMS are complicated.

A weakness of the study is that it did not include Civilian Senior leaders and was also limited to the AirForce and not inclusive of other military services.

Finkelmeier, Madison and Boyd conducted a qualitative research study in 2021 to provide “Federal Government leadership insight into management’s previous experiences of CPI methods, to help understand the best way to positively influence employees to implement CPI initiatives successfully, in turn potentially making the Federal Government more effective and efficient” (Finkelmeier & Boyd, 2021, P.3). Specifically, the study explored the experiences of 9 participants working in the Federal Government which produced the following themes:

T (a) importance of process improvement, (b) leadership, (c) employee satisfaction, (d) CPI methods, (e) challenges, and (f) responsibility for process improvement. The study recommended two options for leaders to maintain process improvement: (a) create a culture that promotes an open, learning, collaborative environment in leu of specific process improvement methods, and (b) create an awards and incentive program to reward employees for process improvement (Finkelmeier & Boyd, 2021, P. 3).

For this study, the researcher recruited participants from a LinkedIn group called Federal Employees of the U.S. Government.

The study was to collect information through Zoom interviews with open-ended questions to explore the CPI methods federal government managers need to implement to maintain employee satisfaction. The researcher sought to understand the “phenomena through the lived experiences of permanent middle-management employees who had experience with strategic continuous process improvement (CPI) initiatives, to provide leaders with different approaches to support CPI initiatives within their organization and thereby help increase organizational efficiency and create a culture conducive to CPI. The sample was extracted from approximately 11,665, geographically dispersed members in the LinkedIn group. Moreover, the researcher specifically targeted middle-managers who have worked for the federal government for a minimum of 5 years (Finkelmeier & Boyd, 2021, P. 11).

The study's target population was middle-manager federal employees with at least 5 years' experience with the United States government. The members were also required to have experience with process improvement. During the interviews, nine participants provided their

perspectives related to the qualitative exploratory study's research question. Their experiences provided insights about process improvement in the federal government, including but not limited to:

(a) the importance of process improvement in the federal government, (b) roles of leadership, management, and employees in process improvement, (c) introduced awards and incentives as a part of process improvement, (d) employee satisfaction, and (e) the best methods to implement process improvement to maintain employee satisfaction” (Finkelmeier & Boyd, 2021, P. 57).

Six themes were revealed through the study including importance of process improvement, leadership, employee satisfaction, CPI methods, challenges, and responsibilities for managing process improvement. A strength of the study is that its data collection and findings are recent, and it pertains specifically to managers within the Federal Government who have had direct experience with implementing CPI in the Government. A weakness of the study is that it was limited to members of a LinkedIn group called “Federal Employees of the U.S. Government” and only targeted those that were classified as middle managers.

## Conclusion

From the research conducted it is clear to synthesize that the FMS process is a complex process. The FMS program’s premise is to support our allied partner nations and it is important to work to adequately maintain those relationships. The DoD and its regulatory agencies have been monitoring performance of the process and have been working towards identifying areas where improvements need to be made. There are many stakeholders involved in the process and there is a set of laws, regulations and procedures that must be followed for these international agreements. Following several reform efforts including the identification of “85 recommendations by the DoD FMS Tiger Team, it is the Undersecretary of the Army, HON

Camarillo who has endorsed the Army FMS Reform Initiative to improve the efficiency and effectiveness of Army FMS process.

DoD acquisition must follow a set of regulated processes, however as part of a checks and balance system, the Government needs to ensure that we are also being efficient in our procedures. Based upon the research conducted there is the potential for the Government to make progress in improving timelines, accuracy and relationships while also preserving our U.S. Industrial Base and supporting our NSS. The success and effectiveness of the improvements are however dependent on organizational structure, dedicated and consistent leadership with an ability to create a culture of change and produce repeatable processes that effectively achieve desired outcomes. The DoD has partnered with the Boston Consulting Group (BCG) to support analysis, provide recommendations, and assist with implementation of a CPIB to improve its FMS process. Despite being a complex process, the literature has shown that CPI can support a change in making the FMS process a leaner, more efficient and timely process to produce greater customer satisfaction and outcomes.

Part of the DoD's analysis in implementing CPI measures requires undergoing stakeholder interviews to understand where there are existing pain points across FMS business processes and ways to improve. It would therefore be my recommendation for future researchers who may conduct literature reviews in this area, to study the results of those interviews and analyze the data behind the implementation of the Continuous Process Improvement Board for the FMS process once it is initiated. I would also recommend that these researchers also study future DoD IG audit reports to determine if the CPI tools implemented have made improvements from prior year audits.

## Chapter 3 – Research Methodology

### Research Questions

This chapter will discuss the research methodology utilized in this paper for the purpose of understanding the key research elements that were used to collect and analyze the data for the research questions that were posed in chapter 2. In addition, a discussion of the specific research strategies and tools will be explained to determine if they are adequate and appropriate for this study. It will provide information on the setting and environment in which the research was conducted, along with an exploration of potential validity or reliability issues due to the data collection methods utilized, along with possible sources of bias or error.

### Research Design

The research was conducted after clearly establishing the research questions and clearly capturing the intent of my research. I then began to break down the questions and utilized the DAU library to begin my research. I structured my search utilizing peer reviewed sources obtained through both Government and business specific databases. I utilized the abstracts to ensure that the sources would add support to the research topic and questions as part of this qualitative study. The search terms that I specifically used included “Purpose of Continuous Process Improvement (CPI), Defining success of CPI in organizations, Foreign Military Sales Process Relationships, Foreign Military Sales Process, Foreign Military Sales Stakeholder relationships, Continuous Process Improvements in Military Organizations, Benefits of Continuous Process Improvements in Organizations, Effectiveness of Continuous Process Improvements in Organizations, Weaknesses in Continuous Process Improvement methodologies, Best methods to incorporate changes within an organization, Implementing Continuous Process Improvements and How to Employ Lean Processes in Organizations.” I

compiled the data and then worked to begin to evaluate the information upon effectively reading each source. I then compartmentalized the data to indicate which source of data could be used to answer each of the research questions. I then worked to divide the information into folders indicating which research question it was answering and utilized my research advisor and librarian for support on ensuring I was on track and following an understandable process for collecting and analyzing the data.

## Data Collection

The information obtained utilizing these search terms was quite substantial, but the amount of research that could be conducted also had to be bounded to coincide with the time allocated within the program of the Senior Service College Fellowship (SSCF) program. Additionally, there is no means to conduct any other type of research or obtain data that is not published within these databases. Additionally, since DAU will publish this study, and since they do not have an Internal Review Board (IRB) in place, therefore the use of interviews and surveys to generate data is not permissible. Because of these limitations, the researcher restricted her data search to peer reviewed journals, reports and studies and also through research on policy, regulation and audits of the FMS process through ProQuest, Google Scholar, DTIC, DAU library, ResearchGate, EbscoHost and DoD databases. The intent of my research was to obtain data specific to the military/government agencies, but also looked towards commercial organizations due to the fact there was more information found within the private sector versus the government sector.

## Bias and Error

In conducting the research, I attempted to mitigate the limitations indicated in Chapter 1 to control bias in the data and conclusions. Researcher bias has been mitigated through a

conscious effort to detect biases that might influence the outcome of the research conducted. Specifically, the research conducted by the researcher, extracted the maximum amount of data due to the time limits of the program using various sources of published reports, theses and dissertations within the libraries and resources made available for this research.

The research focused on the Department of Defense, but to control any bias or error, all data and information obtained was evaluated even if derived from other service entities and organizations. Therefore, data was not eliminated during the research process and was fully utilized even if it pertained to organizations outside the government sector. This approach was applied since the principles and context of research in this area may be the same despite being a different type of organization. I was also able to mitigate the second of not having detailed experience in data collection and producing academic papers of a large size, by utilizing the advice, support and expertise of my research advisor, research lead and advice from the DAU librarian to help guide me through this process. Opposing views were sought to address confirmation bias. The researcher performed an exhaustive search within the databases indicated in chapter 1 to counteract potential inherent bias. In order to obtain a wide perspective of data and to minimize bias, the researcher also used broad search terms.

## Validity of the Research

For each research question, the relevant sources were compiled and compared with the goal of cross-referencing themes between them to measure the appropriateness of the data related to the scope of the research questions. The research indicated that I have fully achieved data saturation using the search terms that I have identified, as numerous sources began to overlay each other on the various themes. For example, sources that discuss how implementation of a CPI has improved processes thereby streamlining and reducing process time and improved

relationships among stakeholders were grouped together. This helped to show the subcomponents of CPI were directly supporting an advantage in an organization. Separately, research discussing the Foreign Military Sales process as a unique and complex process with stakeholder identifying pitfalls of using it were also grouped together.

The research was designed to begin by looking at a broad population and then narrow down to Federal Government/Department of Defense/service entities. Army Civilians. By design, this paper shows that the finding is applicable to larger populations beyond the Department of Defense and its military services. Throughout this process, data was found to be abundant at the broad level and scarcer when looking narrowly at the Department of Defense/service levels. There was however sufficient data to address the research questions. Finally, by using the standard research conceptual framework other researchers should be able to repeat this research while obtaining the same results. In addition, the results of the research were strictly based upon the available resources that were published describing the implementation and use of methods and techniques of CPI in organizations.

### Reliability of the Data

The data included both peer reviewed studies as well as opinion journal articles. Within these various sources, there were many lessons learned and recommendations. This study is not inclusive of all the findings. It is focused on recurring themes and set forth a few of the most discussed themes. This paper has been reviewed by the research professor, research advisor, Senior Service College Fellowship director, and an independent reviewer who all found the logic to be sound and with all sources cited appropriately.

## Chapter 4 – Findings

### Introduction

This chapter discusses the data found that addresses the overall research objective of assessing the efficacy of a continuous process improvement board and practices to improve the FMS process in key areas. The themes found within this research will focus on these key areas which include timeliness, accuracy, building stronger relationships between the U.S and its allied partner nations and the health and national security interests of the U.S and its defense industrial base. The researcher developed these themes based upon the research conducted and will present them in this chapter. The first theme is the timeliness of the FMS process and the deliverables. The second theme includes the positivity of the relationships and partnerships that the U.S. is building with its Partner Nations. The third theme is the impact of the process on funding programs, National Security and the health of the U.S. Defense's industrial base. The fourth theme is the mechanisms to succeed in CPI implementation and finally the last theme is working against CPI barriers to improve FMS and sustain success.

### Theme 1 – Timeliness and Accuracy of the FMS Process and Deliverables

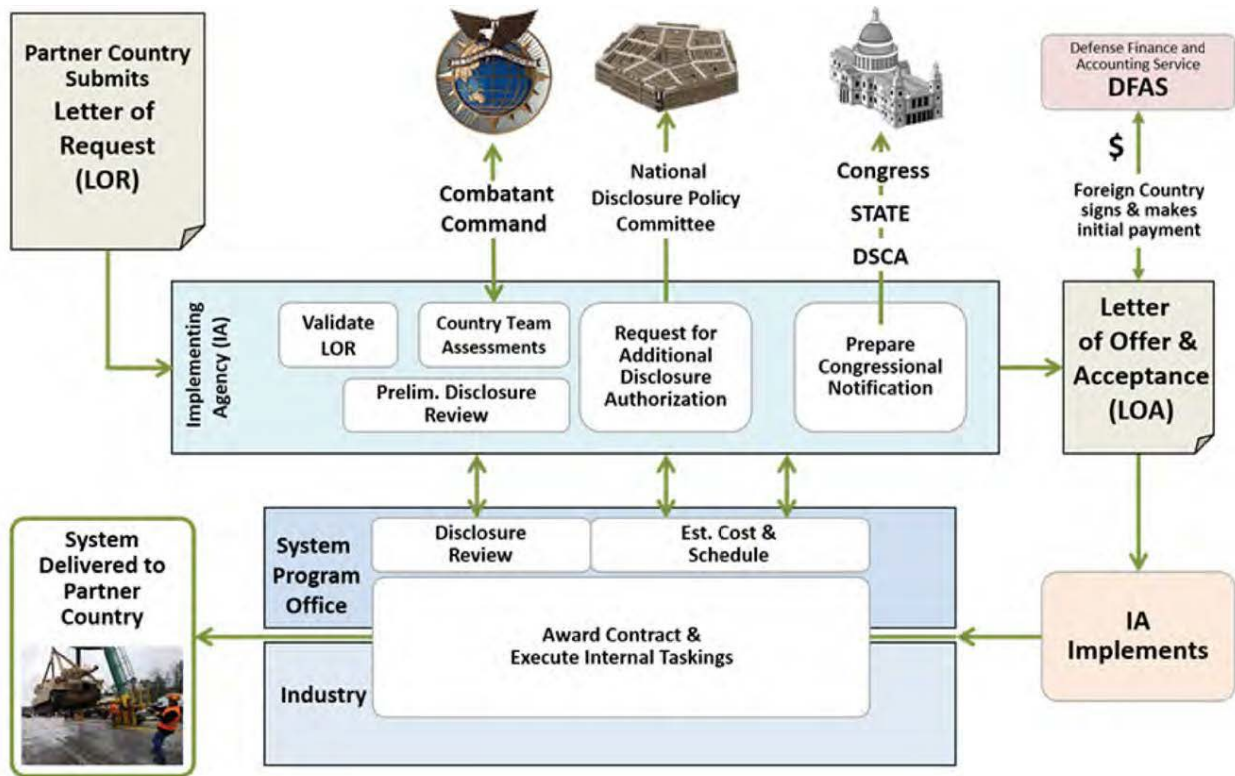
#### Collected Data

To understand the issues with timeliness and accuracy, it is important how the FMS process works. The FMS program uses the

DoD procurement system to support Government-to-Government sales of defense articles and services. The Department of State has overall responsibility of the program, including the approval of sales. The DoD administers the FMS program and manages procurements executed by Military Department and other DoD Component acquisition programs on behalf of foreign partners. The FMS program includes multiple DoD Components, including the DSCA, the Combatant Commands, the Joint Staff, and the Military Departments ( Department of Defense Inspector General, 2022, P.2).

The acquisition piece of the process begins when the foreign partner formally accepts the Letter of Acceptance (LOA) and receives the funds to initiate the procurement process. The FMS case becomes an implemented case at this point and the Military Department IAs begin to work with their respective contracting and acquisition professionals to issue requests for proposals for the end items from the defense industry to be able to award contracts to fulfill the FMS agreements.

The FMS process is initiated when a foreign partner submits a Letter of Request (LOR) for defense articles and services, and this can be done informally or formally in writing. “The IA is required to use the DSCA SAMM criteria to validate the sufficiency of the LOR and, once validated, enter the LOR data in DSAMS and acknowledge receipt of the LOR to the prospective purchaser.” (2022, P.4) The FMS Process has many stakeholders and gatekeepers and takes an average 2 years from the time of initiation to the time of case implementation, which does not account for the time to delivery which can also take another 15-18 months depending on the time needed for production and method of delivery. The level and intricacies of the process are displayed in the below figure which is obtained directly from the “Air Force Security Assistance and Cooperation Directorate” (2002, P.6).



**Figure 4-1: DoD Foreign Military Sales Process**

(U) Source: The Air Force Security Assistance and Cooperation Directorate, 2022

As part of this paper, the researcher collected data primarily through a comprehensive review of the GAO audits completed on the FMS process. In particular, the first one the researcher reviewed occurred in 2017. It was in this study that the GAO focused on the DoD’s ability to provide timely military equipment and services to its foreign partners and allies to build and/or enhance their security capability. This specific study assessed the extent to which the DoD has met FMS timeliness goals and workload/workforce trends. The data that the GAO analyzed was from 2012-2016 and obtained through military departments and interviews conducted by DoD officials. The audit measured the time it took to receive a country’s request to when a formal agreement was signed through an official LOA. As shown in the table, this metric

is based on the complexity of the requests, and although DOD’s timeliness has improved, it is still short of the 85 percent goal. The second missed metric was the time

the Defense Security Cooperation Agency (DSCA) took to review and approve FMS cases. The review time in 2016 was more than the 1-day goal. The third metric was the time the DoD took to deliver the first item to the recipient country; however, DSCA was not collecting data on this metric and therefore did not know if it is meeting the goal (GAO, 2017, P.2).

**Table 4-1 - Percentage of Letters of Offer and Acceptance (LOA) Meeting Timeliness Goals by Type**

Type of LOA (Goal in days)	2012	2013	2014	2015	2016
Simple (45 days)	57%	58%	74%	72%	70%
Standard (100 days)	59%	58%	70%	78%	77%
Complex (150 days)	64%	61%	71%	76%	61%

Source: Defense Security Cooperation Agency data. | GAO-17-703

Note: The goal is for 85 percent of LOAs to be dispatched

The DoD Inspector General’s office conducted a further audit in 2020 to determine whether the DoD coordinated foreign partner requirements properly with DSCA, military departments and other organizations to maximize the FMS process in response to reporting requirements and found that DSCA’ has been exceeding processing standards for how long it should take to develop FMS agreements. There are standards in place that the IA’s must adhere to starting from time the IAs receive a foreign partner’s LOR to when the LOA is offered.

“The DSCA’s goal is for the IA’s to offer 85 percent of their LOAs on or before the established timelines by AOD group” The table below provides this data from Fiscal Years (FY) 2016 through 2018” (Department of Defense Inspector General, 2020, P.10).

**Table 4-2- Processing Standards from LOR to LOA by the Foreign Partner from FY2016-FY2018**

<b>AOD Group (Standard In Days)</b>	<b>FY 2016 Percent of LOAs Meeting Standard</b>	<b>FY 2017 Percent of LOAs Meeting Standard</b>	<b>FY 2018 Percent of LOAs Meeting Standard</b>
Group A (45 days)	70	71	63
Group B (100 days)	77	73	77
Group C (150 days)	61	47	55

Source: The DSCA.

In providing some insight into the delays, the table below provides the primary reasons for why the 70 cases that did not meet standards in FY2016 (2020, P.11):

**Table 4-3 – Breakout of Delayed Cases Reviewed By the DoD**

<b>Cause of Primary Delay</b>	<b>Number of Cases Delayed</b>
Incomplete LORS or Changing Requirements	27
Extraordinary Coordination Required	21
Complex Pricing Efforts or Funding Issues	12
IA Processing	10
<b>Total Delayed Cases Reviewed</b>	<b>70</b>

Source: The DoD OIG, 2020.

The delays indicate that there is a need to investigate the cause and work to improving the process to eliminate the areas causing these delays.

The Government continually reviews FMS and reports on its findings, especially since the reporting has not been accurate and the process has been showing that standards set by DSCA are not being met. As such, in 2022, the IG conducted a further audit that also centered on

how the DoD was doing on being time with the FMS acquisition process and the accuracy of FMS acquisition data that was reported to Congress.

Of the 18 FMS cases reviewed, none of them

had acquisition-related delays that negatively affected the agreed-upon period of performance for the delivery of defense articles and services. Instead, there were either no delays with the agreed-upon period of performance or the delays resulted from circumstances outside the control of the Military Department IAs ( Department of Defense Inspector General, 2022, P.11).

The table below provides the results of the 2022 audit and the reason for why in which the cases reviewed were delayed:

**Table 4-4 – DoD Office of Inspector General 2022 Audit Summary**

Status of Period of Performance and Cause of Delay	Number of Cases
No Delay as a Result of the DoD FMS Acquisition Process	8
Foreign Partner Changed Requirements	7
Contractor-Related Issues	3
<b>Total Cases Reviewed</b>	<b>18</b>

(U) Source: The DoD OIG.

Despite the 2022 audit findings regarding timeliness of the FMS process,

“Secretary of Defense Lloyd J. Austin III approved a tasking memo for the DoD FMS Tiger Team that highlights six areas of the process that need to be improved upon and directs implementation of recommendations to improve and accelerate the Department’s commitment to improve the FMS system” (Department of Defense Unveils, 2023, p.1).

The Tiger Team was instructed to improve the FMS system to help fix these areas to maintain the U.S.’ 2022 National Defense Strategy and to create more positive relationships with our allied foreign partners. The team was built utilizing “senior representatives from across the Department of Defense, is co-led by Deputy Under Secretary of Defense for Acquisition and

Sustainment Dr. Radha Plumb and Deputy Under Secretary of Defense for Policy Sasha Baker” (Department of Defense Unveils, 2023, Para 12). The goals of the team include “accelerating discussions with allies and partner nations to reduce delays during the FMS lifecycle and accelerate acquisition and contracting support and award timelines” (Lopez, 2023, para 16). The issued SECDEF tasking memo was a result of “reviewing all historical findings of reform efforts for FMS and also through solicited and incorporated feedback from allies and partner nations and U.S. industry on needed improvements” (Department of Defense Unveils, 2023, Para 2).

Direction from the Secretary of Defense was partially a result of GAO study conducted in 2023 on the DODs use of security cooperation programs. DOD is required to report to Congress on the status of its Section 333 projects and to evaluate the efficiency and effectiveness of its security cooperation programs. The GAO found that most Section 33 projects were delivered late. GAO’s analysis of DOD data found that as of the end of FY 2022, 75 percent of deliveries were delayed relative to DOD’s estimated dates. DOD monitors individual deliveries’ timeliness but has not established a performance measure, such as a targeted percentage, that would let it regularly assess aggregate timeliness (GAO Highlights, 2023).

Sasha Baker, the deputy undersecretary of defense for policy states that

what is implemented, must be sustained — and going forward, the FMS program must undergo continuous process improvement to keep it relevant and efficient. "We very much envision this process not as having been a sprint that then goes away, but that there will actually be a tail to this in terms of continuous process improvement and looking to ensure that the recommendations that we're making are implemented over time," she said. Part of that continuous process improvement involves establishment of an FMS "continuous process improvement board, which Baker said would act as an enduring governance structure within the department. The department will also establish clearer business processes and metrics for each stage of the FMS process (Lopez, 2023, para 11-13).

## Analysis

Based upon the data collected, analyzed and synthesized, it can be concluded that the FMS process is complicated one with many stakeholders involved. As such there are identifiable points in the process where delays have and can be experienced. The findings are from a sample

of cases that are reported to the DoD and may not completely define the full scope of impact of the delays or cover all the causes completely. Also, the research has been bound by the time restraints for which can occur during the SSCF. As a researcher, I would conclude that there is a strong indication from the data presented within this paper, that indicates that the FMS process needs to improve its timeliness to better support the receipt of deliverables and services being requested by the U.S' partner nations. As such, the DOD has not yet identified and analyzed the areas that are contributing to delays in delivery. Setting a performance measure for aggregate timeliness and systematically analyzing factors causing delays would help DOD ensure effective corrective measures. By working to improve the process and these specific areas, the DOD is also developing an enduring structure with clear guidelines and metrics for sustainability.

## Theme 2 - Positivity of the relationships and partnerships that the U.S. is building with its Partner Nations and Supportability of the FMS Process

### Collected Data

Yoo, Mallicoat and Simpson (Yoo, Duane, & Timothy, 2009, P.1) conducted a qualitative research study on “how specific FMS processes can be improved through the application of logistics best practices and initiatives utilizing both organic and commercial capabilities as a means of CPI” (2009, P.1) The data was collected through various sources including the “2006 Historical Facts Handbook from the Defense Security Cooperation Agency, studies of Navy and AirForce programs, the Defense Acquisition University’s (DAU) ten Integrated Logistics Systems (ILS) elements, the Surface Deployment and Distribution Command (SDDC) and information sourced from the Naval Aviation Logistics Process Improvement Team “(2009, P. 4-7). The analysis concluded that with increased processes for

FMS that the Government has not only the capability to effectively improve FMS supportability but also create new or follow-on FMS agreements, because of the better support to its partner nations.

“There can be substantial benefits in using FMS as part of security cooperation applicable to DoD and the partnering country. An example of the potential benefits came to light when the former administration announced the latest potential U.S. Middle East FMS opportunity. The administration offered more than \$60 billion in new weapons and military assistance to Egypt, Israel, Saudi Arabia, and other U.S. allies in the Middle East.” (Yoo, Duane, & Timothy, 2009, p. 5).

Looking back at the history of these agreements, it can be concluded that future there are potential benefits that can be achieved in a variety of areas including better strategic partnerships and goodwill, as well as a boost to the U.S. industrial base and economy. Some of the tools that help foster better FMS agreement include the following: “subject matter expert exchanges, conferences, large multinational exercises, where all of these falls under the larger umbrella of “Security Assistance” and “International Cooperation” (Yoo, Duane, & Timothy, 2009, P.5).

The study indicated that process achievement can be achieved through many pathways.

One way would be to provide a more effective and supportable FMS program and the general approach of any FMS program should be to: 1) provide a faster and more efficient output performance that meets or exceeds the requirements set forth by the international customer; 2) take advantage of potential initiatives and existing best business practices; and 3) improve life cycle support” (2009, P.6).

## Analysis

From the research conducted through this specific study, it can be concluded that there are several initiatives that can be taken at larger level to improve FMS and of which can be pursued due to the fact that the Security Assistance and FMS process “comprises many regulations and bureaucratic constraints from different stakeholders, “mimicking the three DoD decision support system processes of the Joint Capabilities Integration and Development System (JCIDS); Defense Acquisition System; and the Planning, Programming, Budgeting, and

Execution (PPBE) processes” (2009, P. 7). Working to improve defense acquisition and understanding which initiative(s) to pursue for process improvement is not an easy one. This specific research study specifically mentions improving logistics as one relatively tangible way to improve support to foreign countries and creating a climate of mutual support and cooperation among the U.S. Government, the U.S. defense industry, and the FMS countries.

### Theme 3 - Impact to Funding Programs, National Security and Health of U.S. Defense Industrial Base

#### Collected Data

The sale of U.S.-origin armaments and other defense articles

have been a part of ‘national security policy since at least the Lend-Lease programs in the lead-up to U.S. involvement in World War II. Historically, Presidents have used sales of defense articles and services to foreign governments and organizations to further broad foreign policy goals, ranging from sales to strategically important countries during the Cold War, to building global counterterrorism capacity following the terrorist attacks of September 11, 2001 (Transfer of Defense Articles, 2020, P.5).

The sale of U.S. defense articles to foreign countries is governed by a broad set of statutes, public laws, federal regulations, and executive branch policies, along with international agreements. It is the responsibility of the Department of State and the Department of Defense (DOD) to take control of the “administration of the sale, export, and funding of defense articles to foreign countries, which can be found in both Title 22 (Foreign Relations) and Title 10 (Armed Services) of the *United States Code*” (2022, P.5).

The FMS process expends a significant amount of fund and fiscal responsibility is important to manage appropriately. Specifically, in fiscal years (FY) 2018 through 2022, the Department of Defense (DOD)

allocated nearly \$5.6 billion through Section 333—one of its largest security cooperation programs—to build the capacity of partner nations’ national security forces to conduct certain operations. This funding supported projects intended to provide equipment, training, services, and construction activities to the security forces of at least 90 partner nations to address threats such as terrorism and narcotics trafficking. DOD allocated nearly 16 percent of this funding to projects in Lebanon and Jordan. In FYs 2019 through 2022, 77 percent of allocations supported projects related to maritime and border security operations and counterterrorism operations (GAO Highlights, 2023, P.1).

According to the GAO,

In FY2018, the latest year complete agency data is available, the value of authorized U.S. arms sales to foreign governments and export licenses issued totaled about \$184.3 billion. Foreign entities purchased \$47.71 billion in FMS cases and the value of privately contracted DCS authorizations licensed by the State Department (distinct from actual deliveries of licensed articles and services) totaled \$136.6 billion (Table 1 and Table 2) (Department of Defense Inspector General, 2020, P. 6).

That same year, the State Department requested

\$7.09 billion (base and OCO) for all of its Title 22 security assistance authorities in its International Security Assistance account, while DOD executed \$4.42 billion for Title 10 security cooperation authorities totaling \$11.51 billion, or 24.1% of what foreign entities spent on FMS and 8.4% of the amount of DCS approved licenses” (Department of Defense Inspector General, 2020, P. 6).

**Table 4-5. Foreign Military Sales (FMS) Totals, FY2016to FY2018**

<b>Fiscal Year</b>	<b>Partner Nation Funded</b>	<b>U.S Funded Title 22 Authorizations</b>	<b>U.S. Funded Title 10 Authorizations</b>	<b>Total</b>
<b>FY2018</b>	\$47.71 billion	\$3.52 billion	\$4.42 billion	\$55.66 billion
<b>FY2017</b>	\$32.02 billion	\$6.04 billion	\$3.87 billion	\$41.93 billion
<b>FY2016</b>	\$25.7 billion	\$2.9 billion	\$5.0 billion	\$33.6 billion

**Source:** Defense Security Cooperation Agency;

The FY 2022 National Defense Authorization Act includes a provision for GAO to review Section 333 assistance.

This report examines (1) DOD’s allocation of funding for Section 333 assistance in FYs 2018 through 2022, (2) the extent to which DOD delivered Section 333 assistance to partner nations as scheduled, and (3) the findings of DOD evaluations of Section 333 projects as well as the extent to which the evaluations met criteria for evaluation quality.

GAO analyzed DOD data for Section 333 projects, reviewed DOD evaluation policies and other relevant documents, and compared six Section 333 project evaluations to criteria for quality. GAO also interviewed DOD officials and Contractors (GAO Highlights, 2023, P.1).

DOD “delivered most Section 333 project activities after the estimated dates but does not monitor aggregate timeliness and has not analyzed the causes of delays” (2023, P.1).

While the DoD is not meeting delivery dates, the audit findings could not determine the reasons for the delays. Specifically,

GAO’s analysis of DOD data found that as of the end of FY 2022, 75 percent of deliveries were delayed relative to DOD’s estimated dates. DOD monitors individual deliveries’ timeliness but had not established a performance measure, such as a targeted percentage, that would let it regularly assess aggregate timeliness (GAO Highlights, 2023, P.1).

Also, the report indicated that the DOD has not systematically identified and analyzed factors contributing to delivery delays. This research indicates that the DoD needs to address the areas of timeliness and funding.

## Analysis

Based upon the research conducted through the audits and surveys conducted by the GAO, it can be concluded that there is a need for more coordination between the DSCA and Military Department Implementing Agencies to establish controls and oversight mechanisms. This would require compliance with DSCA policy for having the ability and means to accurately enter foreign partner Letters of Request and establishing the case initialization and Letters of Request complete milestones in DSAMS. The coordination could benefit from improved processes or systems to help facilitate the information exchange and assist with future audits. GAO has specifically stated that “Setting a performance measure for aggregate timeliness and

systematically analyzing factors causing delays would help DOD ensure effective corrective measures” (GAO Highlights, 2023, P.1). Without set performance measures, it is difficult to know how an organization is doing in terms of performance. By merely creating the mechanisms to measure performance, is the start of process improvement. Building upon those performance measures and starting to tackle challenges or issues.

## Theme 4 – Mechanisms to Succeed in CPI Implementation

### Collected Data

According to Kovach, Cudney and Elrod, “today, irrespective of the business domain, companies must focus on speed, efficiency, and customer value to be globally competitive” (Kovach, Cudney, & Elrod, 2011, P.1) and the long-term health of any organization depends on their commitment to continuous improvement.

This type of vision helps companies remain competitive in the face of customers’ constantly changing and evolving expectations. The principles, practices, and techniques embodied within continuous improvement form a comprehensive organizational philosophy that strives to effectively fulfill customers’ needs and organizations implement such programs in order to create the knowledge necessary to improve performance (Kovach, Cudney, & Elrod, 2011, P.1).

To support these efforts, there are many techniques of CPI from which practitioners can choose to in order to help assess, analyze and ultimately improve work processes to improve both productivity and quality. These techniques help teams effectively use their collective knowledge to develop shared understandings and solve problems. “The aim of Kovach, Cudney and Elroy’s research study “was to obtain a better understanding of the lean and quality improvement methods that practitioners have successfully implemented within their organizations” (Kovach, Cudney, & Elrod, 2011, P.1). In the study, data about the use of continuous improvement techniques were collected through a web-based survey given to manufacturing and service professionals within multiple industries.

The study investigates the perceived effectiveness and the challenges/reasons for failure associated with CPI techniques and the perceived effectiveness and the challenges/reasons for failure associated with these techniques. It also considers these issues separately for manufacturing and service operations to identify important differences that may exist in certain environments” (Kovach, Cudney, & Elrod, 2011, P. 2).

**Table 4-6 Continuous Process Improvement Techniques Included in the Study**

Lean Methods	Quality Tools	
	7 Old Tools	7 New Tools
1. Value Stream Mapping (VSM)	1. Flowcharts	1. Affinity Diagrams
2. 5S/Visual Factory	2. Check Sheets	2. Interrelationship Diagrams (IDs)
3. Standardized Work	3. Histograms	3. Tree Diagrams
4. Single Minute Exchange of Die (SMED)	4. Pareto Charts	4. Process Decision Program Charts (PDPCs)
5. Poke-Yoke (error-proofing)	5. Cause and Effect Diagrams	5. Matrix Diagrams
6. Kanban	6. Scatter Diagrams	6. Prioritization Matrices
7. Heijunka (level out the workload)	7. Control Charts	7. Activity Network Diagrams (ANDs)

Source: International Journal of Engineering, Science and Technology (Kovach, Cudney and Elrod, 2011)

In terms of lean techniques, the majority of practitioners surveyed indicated the following:

5S/visual factory, VSM, standardized work, kanban, and poke-yoke were among the lean techniques their organizations had successfully implemented. Also, VSM is one of the most fundamental lean practices, and although this technique can be very involved, it is often a first step in estimating how much waste exists in a process so that projected savings from a lean program can be estimated (Kovach, Cudney, & Elrod, 2011, P.5).

In addition, since standardized work is already in place to some extent in many work environments, it may not require significant changes. Therefore, it may be relatively easy to implement this technique in different industries by simply documenting existing processes.

Few practitioners, however, reported that their organizations had successfully implemented techniques such as SMED and heijunka, which are more complex lean methods that require greater organizational change to implement In terms of quality improvement methods, the majority of practitioners surveyed reported that five of the 7 Old Tools, including flowcharts, check sheets, histograms, Pareto charts, and control charts, were effective in terms of investigating/solving problems within their organizations(Kovach, Cudney, & Elrod, 2011, P.5).

Furthermore, a larger percent of practitioners working in service environments indicated that “quality improvement methods were more effective than those from manufacturing environments, especially for the several of the 7 New Tools” (Kovach, Cudney, & Elrod, 2011, P.7). It is understood that service and manufacturing environments are different in nature and it is important to work to determine which would be helpful in each of these areas.

It was also found that larger percent of practitioners generally reported that the 7 Old Tools were effective in terms of investigating/solving problems within their organizations as compared with that reported for the 7 New Tools, regardless of whether they work in manufacturing or service operations (Kovach, Cudney, & Elrod, 2011, P.7).

Therefore, there are many tools that can be utilized and all involve the need for senior level management to support the change initiatives.

## Analysis

From the research conducted, it appears that there are many CPI initiatives that could work and for the newer ones being added, they could be explored more by organizations. Knowing which one works best for a project or organization type is important, but it is also important not to focus only on one type or one that has been used repeatedly. Organizations need to balance initiatives with the mechanisms and be able to adjust based upon the situation or issue they are looking to bring about change for.

## Theme 5 - Working Against CPI Barriers to Improve FMS and Sustain Success

### Collected Data

Hamm's (2013) qualitative and exploratory study included “eighteen participants that were selected from a pool of 146 senior leaders with each participant having at least 15 years’

experience within the DoD” (Hamm, 2013, P.2). Participants in the study were either classified as civilian or military who were currently working in leadership positions during the time of the study or had previously served in leadership positions prior to the study. “The collection methodology for the study included Seidman’s three-phase interview approach used to explore the experiences, perceptions, and insights of senior leaders through open-ended questions provided to participants through semi-structured, in-depth interviews” (Hamm, 2013, P.2). The research concluded up to “three quarters of the attempts to implement change initiatives fail because senior leaders do not align their behaviors and organizational culture change and that successful implementation of continuous process improvement increases efficiency and effectiveness within organizations” (Hamm, 2013, P.1).

Day (December 2015) also performed qualitative research through data obtained from a random sample survey to research the barriers to CPI implementation in a military organization. The survey participants were “members of the United States Air Force either as an active-duty military member or government civilian assigned to Air Mobility Command (AMC)” (Day, 2015, P.87).

Using an affinity diagram, the 35 barriers identified were reduced to 12 for inclusion in the initial model. The results indicated that the top ranked barrier, “which is a significant, positive predictor of Change Support and the only significant, positive predictor of Institutionalization, is Senior Management/Leadership Commitment (Day, 2015, p. 151).

Other barriers identified through the research included culture, structure, measurement/metrics, change management/implementation strategy and motivation for change.

Day cites that the “implementation of cultural change, such as CPI, involves changing organizational performance and the way employees accomplish their tasks” (Day, 2015, P.55).

Though it sounds easy to change, elements are at work that help or hinder the process. Those that help are success factors and motivators.

Success factors are those organizational elements that facilitate and contribute positively to the implementation of a process improvement initiative. Two factors that hinder the effort to change are barriers and demotivators. Barriers are factors that hamper, impede, or impose restrictions on the desired initiative while demotivators are factors that degrade or discourage the change effort (Day, 2015, P.55).

An organization's ability to encourage success factors and motivators, while minimizing/eliminating barriers and demotivators, creates a better chance at successful implementation leading to institutionalization. It is crucial for organizational leadership, at all levels, to be able to recognize and address the barriers to CPI implementation before the change effort is stopped and the investment of time and resources wasted. Day specifically provides some early empirical data from CPI implementation and the rate of failure/success in the table below:

<b>Table 4-7 -CPI Implementation and the Rate of Success/Failure</b>			
<b>Study/Date</b>	<b>Method</b>	<b>Sample</b>	<b>Findings</b>
Kearney (1992)	Survey	100 UK organizations	80% of initiatives failing to deliver expected benefits
Little (1992)	Survey	500 US organizations	67% rate of failure
Economist Intelligence Unit (1992)	Case studies	50 European organizations	Many initiatives failing in implementation
Rath & Strong Management Consulting (1992)	Survey	95 top managers from Fortune 500 organizations	55% rate of failure
Wilkinson et al. (1994)	Survey	880 managers (UK & foreign organizations)	53% rate of failure
Mohrman et al. (1995)	Survey	290 US organizations	33% rate of failure
Kunst and Lemmink (2000)	Survey	227 hospitals (125-UK, 46-Spain, 56-Netherlands)	23% rate of failure
Walsh et al. (2002)	Survey	100 medium or large-sized organizations in Ireland	7% perceived overall success of TQM program
Taylor and Wright (2003)	Survey	109 TQM firms in Northern Ireland	59% rate of failure
Sila (2007)	Survey	286 manufacturing and service organizations	86% rate of failure

Source: Day, 2015, P.62

The results of Day's study conducted in 2015 indicated that that the top ranked barrier, "which is a significant, positive predictor of Change Support and the only significant, positive predictor of Institutionalization, is Senior Management/Leadership Commitment" (Day, 2015, P.167). Other barriers identified through the research included culture, structure, measurement/metrics, change management/implementation strategy and motivation for change.

In the qualitative study conducted by Finkelmeier & Boyd in 2021, there were "six major themes: the importance of process improvement, leadership, employee satisfaction, CPI methods, challenges, and responsibilities for process improvement" (Finkelmeier & Boyd, 2021, P.82) that determined the success of CPI in the Federal Government, especially regarding employee satisfaction and support.

This study aimed to identify the CPI methods most effective and relevant for maintaining employee satisfaction in the federal government. Results from this study provide valuable information for leaders within the public sector to understand how employees perceive their involvement when initiating and implementing CPI projects. Leaders can use the results to provide an alternative method in their approach when leading CPI initiatives (2021, P.86).

For the importance of process improvement in the public sector theme, the study revealed that maintaining agency efficiencies and effectiveness is important and that we should be working continue to make improvements. All of which the participants felt their organizations were trying to do. For example,

a participant from the Department of Veterans Affairs indicated that process improvement is a performance plan and evaluation requirement. Another participant from the Air Force stated that there had been a significant change in process improvement over the last 3 years. At one point, managers could ignore process improvement, but participants now believe managers are being inspected, and it is now a requirement for leaders to improve their units, many times by using CPI methods such as LeanSix Sigma (2021, P.87).

For the leadership theme, each of the participants mentioned that “leadership is the primary decision-maker and be responsible for understanding the overall organizational needs and establishing goals, but they should listen to and trust their employees to help identify and ultimately implement process improvement initiatives” (2021, P.88). It was determined through the research however that the changes need to be accomplished through clear and concise communication when implementing process improvement and there should be two-way communication concerning CPI initiatives.

For the theme of maintaining employee satisfaction, the study revealed some ways to maintain employee satisfaction and involvement while implementing CPI. It involved creating an organizational culture that is team drive and promotes learning, with having each member contributing to the initiative, even at the lowest levels of the organization. Interesting enough, the study revealed that participants felt that leadership ignored the group that were the subject matter experts. Employees could be incentivized and rewarded for creating process improvement initiatives. In addition, leaders need to understand their organization and each employees’ strengths and weaknesses so that they can properly train the workforce and build that culture for change.

For the theme of CPI methods, there were no best methods for CPI, but the participants identified several process improvement methods that organizations can use, “including Lean Six Sigma, Total Quality Management, Kaizen, Kirkpatrick's Model, Manpower studies, and PIC chart” (Finkelmeier & Boyd, 2021, P.90). All of the research again realized that no matter what change model used that leadership approach in making the change was crucial. For the theme involving challenges, the biggest issues with making improvements in the Federal Government is

leadership changes, lack of available resources, funding and time to that can be dedicated to making process improvements.

Leaders in military organizations spend 2 years in an assignment. In many cases, leaders in leadership positions do not fully understand them due to the various assigned positions. Participants noted that the frequent changes could be an issue. To combat this problem, participants recommended the bottom-up approach for the implementation of process improvements. The participants also noted that each employee within the organization must complete process improvement initiatives and their current duties. Essentially, these employees continue to deal with competing priorities when trying to complete tasks within the organization (2021, P.91).

For the last theme of responsibilities for managing process improvement, all of the respondents agreed that it was the leader's responsibility for CPI initiatives.

Some participants were in jobs requiring them to find opportunities for CPI. Some managers were in leadership positions where they were responsible for managing continuous process improvement within their sections. Essentially, they establish processes based on organizational goals set by higher-level leaders and align them with their team or organization's needs. Participants from the Airforce and the Army identified that continuous process improvement is a part of manpower (2021, P.91).

Essentially, this study's research indicates that leaders and managers within the federal government

should create an organizational culture that focuses on learning, collaboration, and open communication instead of focusing on specific CPI methods. Initially, the research aimed to address particular CPI methods essential to maintaining employee satisfaction, but ultimately found that specific CPI methods were the least important factor when implementing CPI. Participants from various agencies identified using multiple CPI methods, such as Total Quality Management, Lean Six Sigma, and Kaizen. However, they believed that organizational culture and strong leadership interested in gaining employee buy-in are essential (2021, P.91).

Furthermore, Unzueta, Esnaola, Eguren's study concluded that to "create and assimilate new CI routines, it is necessary to apply improvement tools and methods through a systematic and structured process" (Unzueta, Esnaola, & Eguren, 2020, P.6)

The current field research shows that the improvement process (CIP) that was developed and implemented helped develop improvement routines and create a more unified organizational culture that supported these improvement efforts. Specifically, the study was able to conclude that there was a benefit for implementing CPI if there was structure supporting the initiative, with support from the top to help promote the changes. The study found the following:

in the first two cycles, the bases of the CI system were established an organizational structure adapted to the organization itself was defined, based on a promoter team and led by a CI leader. During the first cycle, the roles and rules of the team's operations were established, and in the second cycle, the team members assimilated the roles and rules. All of which reinforced the teamwork and involvement of the promoter team, which therefore made it possible to define and launch new projects (self-control system, advanced product quality planning (APQP), picking logistics systems and automated storage, etc.). This created the results for improvement to the problems identified by the organization, however it was clear that the successes were due to management and the CI leaders' actions and support were key (Unzueta, Esnaola, & Eguren, 2020, P.7).

According to the study, organizations must first work to consider where they are currently at and then develop the appropriate improvement tools upon that assessment. Table 4-8 below summarizes the principal tools and methods applied at each level within the study as an example illustration:

**Table 4-8 – Methods and Tools Used for Each Maturity Level**

	<b>CI maturity level</b>	<b>Production maturity level</b>	<b>Methods and tools used at a given level</b>
Level 1	<p><i>Pre-CI:</i> Interest in the concept of CI. Nevertheless, implementation is on an ad hoc basis. No formal efforts or structure for improving the organization.</p>	<p><i>Performed production processes:</i> Processes are not iterative or predictable. Impossible to control progress.</p>	<ul style="list-style-type: none"> <li>• Using employees' tacit knowledge</li> <li>• General control</li> </ul>
Level 2	<p><i>Structured CI:</i></p> <ul style="list-style-type: none"> <li>• There is a formal commitment to building a CI system. CI initiatives have been introduced.</li> </ul>	<p><i>Manage production processes:</i></p> <ul style="list-style-type: none"> <li>• Targets are met as a result of implementing a plan. Progress is monitored.</li> </ul>	<ul style="list-style-type: none"> <li>• 5S</li> <li>• Standard operating procedures</li> <li>• Autonomous maintenance</li> <li>• Provisioning Kanban</li> <li>• Quality goals and standards</li> <li>• Seven quality tools</li> <li>• OEE</li> <li>• Training plan</li> </ul>
Level 3	<p><i>Goal-oriented CI:</i></p> <ul style="list-style-type: none"> <li>• Commitment to linking CI behaviors to the strategic concerns of the organization. Formal deployment of strategic goals. Monitoring and</li> </ul>	<p><i>Defined production processes:</i></p> <ul style="list-style-type: none"> <li>• Targets are met in processes defined in line with the process– approach parameters.</li> </ul>	<ul style="list-style-type: none"> <li>• Production and supply process maps</li> <li>• Value stream mapping (VSM)</li> <li>• Waste identification and elimination</li> </ul>

	<b>CI maturity level</b>	<b>Production maturity level</b>	<b>Methods and tools used at a given level</b>
	<p>measuring CI against these goals. CI activities are part of the main business activities. Most of the staff participate in CI activities.</p>		<ul style="list-style-type: none"> <li>• Work station layout adjusted to the process requirements</li> <li>• Collecting data on quality</li> <li>• Maintenance system (TPM, RCM)</li> <li>• Kaizen events (Blitz)</li> </ul>

Level 4	<p><i>Proactive CI:</i> There is an attempt to devolve autonomy and to empower individuals and groups to manage and direct their own processes. High level of experimentation.</p>	<p><i>Quantitatively managed production processes:</i> Quantitative and qualitative targets and performance control tools defined for processes and operations.</p>	<ul style="list-style-type: none"> <li>• Quality and productivity measures established.</li> <li>• SPC identification of special causes</li> <li>• DMAIC (Six Sigma)</li> <li>• SMED</li> <li>• Production Kanban</li> <li>• Presentation of productivity and quality performance</li> </ul>
Level 5	<p><i>Full CI capability:</i></p> <ul style="list-style-type: none"> <li>• Approximates to a framework of a ‘learning organization’.</li> </ul> <p>Extensive learning behaviors, systematic finding and solving of problems and capturing and sharing of learning.</p>	<p><i>Optimized production processes:</i></p> <ul style="list-style-type: none"> <li>• Processes are continuously improved and adapted to the changing environment and corporate strategy.</li> </ul>	<ul style="list-style-type: none"> <li>• Process re-engineering</li> <li>• Kaizen in the whole organization</li> <li>• SPC identification of common causes</li> <li>• DMAIC (Six Sigma)</li> <li>• Teamwork, culture of 0 defects, 0 equipment failure, 0 time waste</li> </ul>

Source: (Unzueta, Esnaola, & Eguren, 2020, P.8)

The improvement tool selected to start defining the basis for CI was 5S. The 5S methodology is a lean tool developed by Japanese manufacturing companies comprising five stages: sort set in order, shine, standardize and sustain. “The methodology is simple to apply, facilitates the participation of employees in the area and promotes teamwork. Many authors have pointed to 5S as a suitable tool for this purpose” (2020, P.10).

In Herman’s qualitative study conducted in 2017, the results indicated that there are five major focus areas that have the ability to create success or produce failure when implementing CPI initiatives. The five lessons learned highlighted in this study is that:

rebranding was not sufficient to remove the stigma associated with legacy programs, effective leadership is essential to make CPI work well, a proper champion is imperative to facilitate successful CPI efforts, marketing and resourcing CPI efforts is critical to success, and CPI efforts must incentivize participation by Airmen and generate positive effects for Airmen. Finally, the most significant takeaway from this research is that a fundamental shift in ideology must take place to transform CPI's primary focus from generating cost and manpower savings to facilitating mission accomplishment (Herman, 2017, P.51).

With the theme of rebranding for example, when discussing the research topic with "AF personnel who were not directly involved with CPI, the first question almost always was, "What's CPI" (2013, P.51)?

Furthermore, it is important for

commanders and middle managers to realize that the manpower office has the ability to help versus just taking billets away. If we conduct a CPI study and realize that your unit isn't using resources effectively, we will work to ensure they are or we will redistribute them; however, if we find that a unit is conducting the process as efficiently as it can, and the process is needed to accomplish the mission (2017, P.53).

Another theme out of this study is that leadership is an integral piece to make CPI work well. Senior leaders have a tremendous amount of influence in the process of process improvement, but subordinate leaders are considerably influential as well.

Lower-level leaders in an organization have a substantial ability to influence the success or failure of CPI projects. For the purposes of this example, "lower-level leaders" range from subordinate commanders in organizations to front-line supervisors. First, unless lower-level leaders are directed to implement CPI efforts after deficiencies in an inspection, leaders who intend to use CPI in their organizations need to initiate the call to CPI experts for assistance when required. Second, if leaders are not advocates of CPI and rewarding those in their units who attempt to utilize it, there is little incentive for working-class members to use the methodology to enhance their mission (2017, P.54).

Along with leadership support, there also needs to a champion to support the change initiatives. This person will be the one that understands the fundamental tools and ideologies of process improvement and assists in maximizing the potential for a project's success.

Furthermore, a champion could influence subordinate leaders, to develop buy-in for the process, and to assist with the finer points of change management.

“ CPI projects can be intrusive and preparing the battlespace prior to the event is essential. For example, if someone just showed up to a worker’s duty station with a stopwatch, briefly said, ‘hello I’m going to gather data with respect to how you perform your task,’” and started writing on a clipboard, the results would be questionable. If a champion encouraged buy-in to the CPI process from subordinate leaders who could motivate their subordinates, a shift from fear of judgment to an embrace of opportunity is possible that enables the ability for a process to demonstrate its true potential (2017, P.55).

In addition, marketing and resourcing CPI efforts is critical for success. Advertisements or literature in the office may help promote the change, but getting the right people involved is even more critical.

Leaders must identify the “key influencers” and “decision makers” in an organization because they offer useful suggestions about how to implement the process. These are the people who command influence in an organization and are not necessarily those in formal leadership position. For CPI efforts to penetrate the AF culture and establish a lasting role, leaders should resource CPI efforts and employ change-management techniques that have proven success. John Kotter’s book, *Leading Change*, has become a staple for agents of change across industry, and he makes a special note about the proper methods of resourcing to facilitate optimal outcomes. Specifically, he highlights an eight-stage process:”

1. Establish a sense of urgency.
2. Create the guiding coalition.
3. Develop a vision and strategy.
4. Communicate the change vision.
5. Empower broad-based action.
6. Generate short-term wins.
7. Consolidate gains and produce more change
8. Anchor new approaches in culture

(Herman, 2017, P.56-57).

The study results also indicate that CPI efforts must incentivize participation and reward the workforce and not punish them. “If CPI is to be something better than legacy failures, proper

utilization of the tools in line with CPI’s core principles is imperative” (2017, P. 57). The study further concluded that CPI, much like the processes it seeks to influence, is a process itself, and therefore, it was thought that that it would evolve over time to meet the needs of the organization.

The voice of the customer, identification of value- added activities, and elimination of waste are at the core of process improvement ideologies, and when employed properly, enable data-driven decisions that enhance mission accomplishment and deliver effects at reduced risk and cost and through this study provides the below conceptual framework to support changes (2017, P.5):

**Figure 4-2 Conceptual Framework to Support Changes**

Source, Herman, 2017, P



## Analysis

Based upon the research studies conducted the main reasons for failure of implementing change initiatives includes leadership and the culture and commitment of the organization. The research also shows failure rates without providing the necessary reasons for failure and some of which may connected to unsuccessful implementation of CPI initiatives. Finding the

mechanisms to fight against these barriers appears to be the key in finding success in CPI implementation. The results also indicate that management support and leadership are key in ensuring the sustainability of implemented improvements and changes to processes as they are the promoters for the change initiatives. It is also important for management to involve all team members and stakeholders within the change to also ensure success and not to make it a negative experience.

## Chapter 5 – Interpretation

### Introduction

In Chapter 4, the researcher presented the data found regarding the research questions on the areas requiring improvements within the FMS process and the benefits that could ensue if the appropriate mechanisms of CPI were employed. Much of this analysis is based upon research and studies conducted within both the private and military sectors. It also reveals how a CPI board could sustain these improvement measures for long-term success across all themes impacting the FMS process. The research revealed a total of five themes – 3 of which are the areas that are directly impacting the FMS process, and of which have been identified through audits and studies conducted by the DoD and GAO. The other two themes support barriers to implementing CPI, overcoming those barriers and mechanisms and tools that can provide the most sustainable successes for change implementation. In this chapter, the researcher will provide the conclusions, recommendations, and the limitations of the research conducted within chapter 4.

### Conclusions

The research conducted provided the answers to the three research questions provided in chapter one. The research revealed that there is a need to improve the FMS process in terms of

timeliness, accuracy and funding, relationships with stakeholders and partner nations, while also maintaining the U.S. National Security Strategy and industrial base. These specific areas were identified as needing improvement based upon data derived from interviews and specific studies and the DSAMs systems that house historical FMS data. The first question was to determine the potential benefits of a continuous process improvement program in the context of FMS. CPI that is implemented correctly with leadership and organizational support can provide the following benefits:

1. An enduring and governing structure within the DoD that possesses clear business practices and metrics
2. Better coordination between agencies within the Government, the end users and the military departments implementing the FMS process
3. Creation of beneficial subject matter expert exchanges, conferences and large multi-national exercise to foster better FMS agreements
4. A faster and more efficient output providing performance that meets or exceeds the requirements set forth by the international customer
5. Use of already established initiatives and existing best business practices
6. Improvement in life cycle support

The second question was to specifically determine what mechanisms of a continuous process improvement program could enhance FMS programs performance. The research indicated that the FMS process could benefit from CPI because there are specific tools that can be used to help streamline the process, remove inefficiencies and also help to embrace the changes amongst the stakeholders and the organization. This conclusion was drawn from CPI implemented initiatives both within the Government and private sectors. The research data suggested several CPI methods have a proven track record and could be implemented such as 5S/visual factory, VSM, standardized work, Kotter, kanban, and poke-yoke, but these methods cannot be successful without leadership support who will have team members engaged and positively promoting the changes.

The need for leadership engagement leads into the third research question of ways leaders and organizations can effectively build a continuous process improvement board to successfully oversee the CPI implementation to enhance FMS programs positive outcomes. The research provided specific change mechanisms that could be utilized to provide increased performance and how a CPIB could support CPI implementation to foster positive outcomes for long term success. The implemented CPI methods that provided improvements were retrieved from research conducted through studies within military or private industry organizations. The change methods however were not nearly as important in successfully implementing CPI, as was leadership and the way in which it was instituted within the organization. Before implementing a change and selecting a change method, senior leaders need to establish a team that has the following in place:

1. Strong leadership and a culture that fosters teamwork and continual learning & progression
2. Method of communication to effectively communicate, market and resource CPI efforts
3. Build CPI as a welcomed opportunity and not a burden
4. Designate champions of the process
5. Identify key decision makers and influencers
6. Incentivize and reward employees for supporting and building upon the initiative
7. Create empowerment – even at the lowest levels

To summarize, the researcher found that there are significant areas that could use improvement. Many of which are connected and can directly affect each other. The areas that need improvement are based upon the themes developed within this research paper which include timeliness – both in terms of process and receiving end items, accuracy of requests and allocation of funds, developing stronger relationships with stakeholders and partner nations, developing greater national security initiatives, and providing better support to build the health of the U.S. Defense industrial base. Much of the research conducted and the areas of improvement

are well documented through GAO audits and reports conducted since 2017-2023, all of which provide significant evidence of the gaps needed to be filled within the FMS process and clearly provide direct support for the research questions. An organization can clearly see the benefits from CPI but also how to go about instituting it and managing it to help build their change initiatives – all of which are equally applied within the Government and in the private sectors. The research paper provides for these lessons through the research conducted.

## Recommendations

From the research conducted, I have concluded that CPI initiatives pursued to address the areas identified as having weaknesses within the FMS process could be implemented quite readily but will need ongoing support. It can also be concluded from the research that there are significant benefits of obtaining improvements in only one or two of the six LOE established by the Secretary of Defense. A change in one area of focus can therefore have rippling effects and provide for improvements in the multiple themes covered within this paper. This process however require commitment and culture changes within the DoD, military departments and streamline approaches to change policies and procedures. The establishment of the Tiger team and task force that was recently enforced by the Secretary of Defense, is the start to uncover the mechanisms and processes that could be utilized. The DoD can learn from what industry has done to streamline their processes. It is important to make these improvements and continue to support these initiatives to benefit our Joint warfighters and protect our U.S. Industrial Base and National Security.

The are several areas in the research that could have been expanded upon to build upon this research. These areas include:

1. Research in the most effective ways to which promote, advocate and communicate the initiatives being pursued to support the FMS process.
2. A review of the last several GAO recommended actions to correct audit findings regarding the FMS process. The review shall produce the DoD's ability to produce an analysis of the improvements (if any) are being made over time per the recommendations.
3. A subsequent review of the tiger team initiatives and recommended approaches for each Line of Effort in the next year in order to determine what initiatives are making progress or still need work.
4. Review of policies and procedures for FMS that are outdated, redundant or contradictory. Removing these may result in efficiencies immediately.

### Limitations of the Study

This study was limited to existing literature and data and also confined by the time limits of the Senior Service College Fellowship program. It therefore does not include all possible forms of literature and possible change methods. As such, data available but not found from this research may provide further clarity on specific methods or approaches from what is currently presented in this paper. Therefore, not all approaches and mechanisms for implementing CPI were able to be explored and data was mainly retrieved from industry and not within the Government sector. Another limitation due to time was that the research could not include a more diverse sampling of specific change methods within each military service to provide for a greater spectrum of findings.

## Summary

While more research can be conducted, it is clear from the studies and audits completed that there are several areas where CPI can help to improve and streamline the FMS process benefiting our U.S. Industrial base, National Security strategy and building greater coalitions with our partner nations in the support the DoD provides to our Joint Warfighters. It is extremely important that Senior leaders work in the appropriate manner to implement changes – especially this transformational change to FMS. Without effective employment measures, metrics, control points and rewards, it is likely that the initiative will not be successful. In the case of FMS, not being successful in managing these efforts can have far-reaching and detrimental effects. It is therefore of critical importance that stakeholders who are involved within the process become champions for the changes and work collectively to support the measures and areas of effort outlined by the Secretary of Defense.

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## Glossary of Acronyms and Terms

AF .....AirForce

ASA(ALT) ...Assistant Secretary of the Army, Acquisition, Logistics and Technology

AT&L.....Acquisition, Technology and Logistics

CPI.....Continuous Process Improvement

CPIB.....Continuous Process Improvement Board

DA .....Department of Army

DAG.....Defense Acquisition Guidebook

DSCA.....Defense Security Cooperation Agency

DoD.....Department of Defense

DoDI .....Department of Defense Instruction

DoS.....Department of State

DAU.....Defense Acquisition University

DCMA.....Defense Contract Management Agency

DSCA.....Defense Security Cooperation Agency

DSAMS .....Defense Security Assistance Management System

DTIC .....Defense Technical Information Center

DoD.....Department of Defense

DoDD.....Department of Defense Directive

EBSCO .....Elton B. Stephens Company

FMS .....Foreign Military Sales

GAO .....General Accounting Office (now known as the Government Accountability Office)

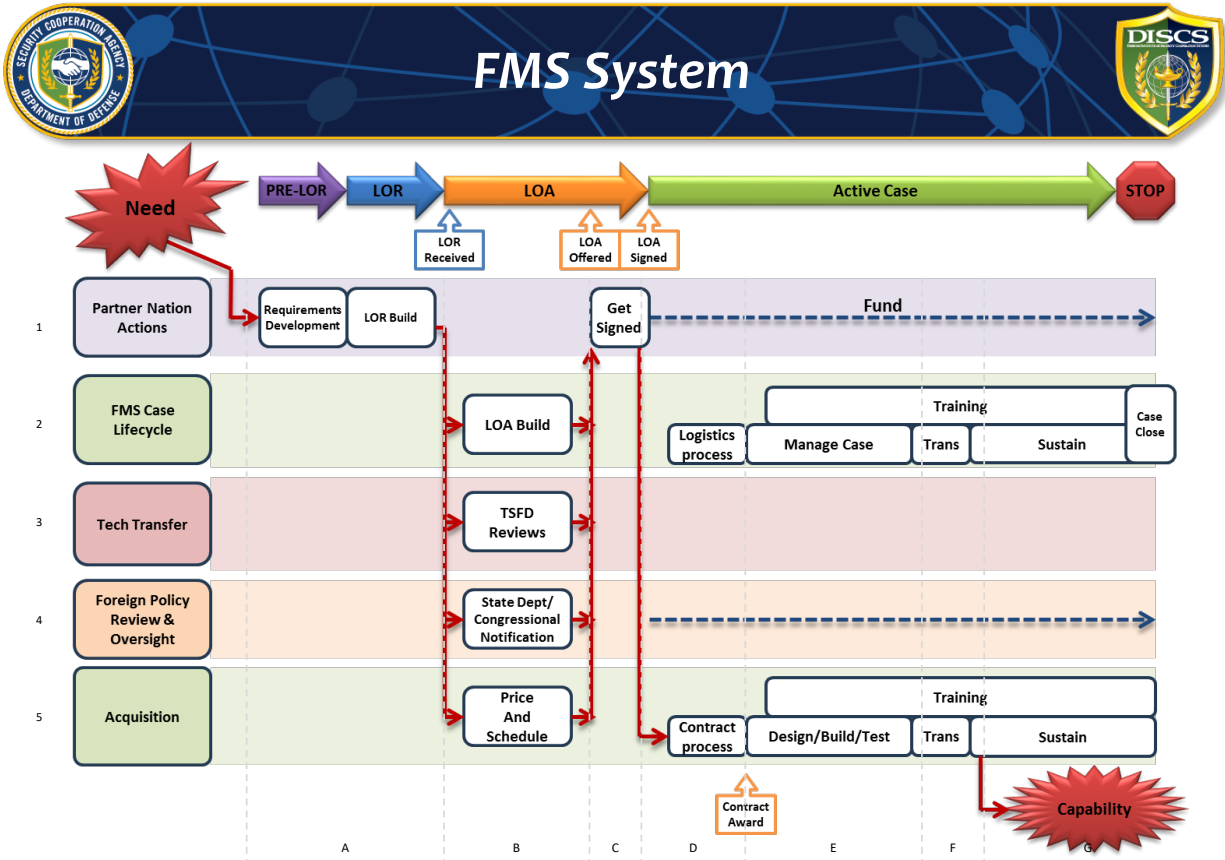
LSS .....Lean Six Sigma

IG .....Inspector General

NSS .....National Security Strategy

USD(AT&L)..Under Secretary of Defense for Acquisition, Technology and Logistics

# Appendix A – FMS System Chart



# Appendix B –Recommended Resources for FMS and Security Cooperation Updates



**Defense Security Cooperation Agency**  
Solutions for America's Global Partners™

Home About DSCA News & Media Major Arms Sales E-SAMM Programs Resources

**Leading Change - Fulfilling DSCA's Strategic Plan, Vision 2020**  
DSCA's plan to guide the Defense Security Cooperation community in the development and execution of innovative security solutions that support mutual U.S. and partner interests. See Latest Updates.

**Who We Are**  
DSCA is the Department's lead agency for the execution of Security Cooperation programs. DSCA subject-matter expertise spans the gamut of Security Cooperation activities to include policy, financial, legal, legislative, programmatic, and weapons systems experts.

**Leadership**  
The DSCA leadership team oversees a dynamic workforce spanning expertise across the Security Cooperation (SC) spectrum. Under the leadership of the DSCA Director, Vice Admiral Joseph Rowy and the Deputy Director, Ms. Jennifer Zakrinski, DSCA's Principal Directors are working to fulfill the goals and objectives laid out in DSCA's strategic plan, Vision 2020. Focused on continued process improvements of a

<http://www.dscamil>

**Defense Security Cooperation Agency**  
DEFENSE INSTITUTE OF SECURITY COOPERATION STUDIES

DSCA Home Page  
International Training Management (ITM)  
Ask an Instructor Search

HOME COURSE CATALOG ONLINE LEARNING PLANNING TOOLS ACADEMIC PFA PROGRAMS PUBL & OTHER RESOURCES SC TOOLS RESEARCH

**WHO WE ARE**  
Located at Wright-Patterson Air Force Base, Ohio, the Defense Institute of Security Cooperation Studies (DISCS), known prior to 1 July 2016 as the Defense Institute of Security Assistance Management (DISAM), provides professional education, research, and support to advance U.S. foreign policy through security assistance and cooperation. Choose a drop down item from "Home" at the main menu above to learn more about this dynamic institution and the talented people who work here!  
Note: Some references to DISAM courses, publications, etc. on this website will remain and are valid through a transition period that should be complete within a few months.

**COMMANDANT'S MESSAGE**  
I'm hoping that you've not had issues finding us! As you can tell by our new website -- The Defense Institute of Security Assistance Management (DISAM) transitioned to the Defense Institute of Security Cooperation Studies (DISCS). This became effective 1 July 2016, and comes as DSCA more closely aligns the schoolhouse, its curriculum, and its mission priorities with DOD strategic guidance, and DISCA's vision for the future. The name change reflects DSCA's focus on full spectrum capability building and that the schoolhouse's mandate for training the workforce has...

**NEWS & NOTICES**  
**Action Officer Course (SCM A0) New!**  
The name of this course has been changed to Security Cooperation Management Policy, Programs, and Planning (SCM-P3). Course content and objectives remain unchanged, but the name better reflects the intent of the course and the personnel that would benefit.  
**New Learning Guidest**  
A new International Military Student Briefing (IMSIB) is available as a replacement for the International Military Student Pre-Departure Briefing (IMSIPB). This is designed for International Military Students (IMS) who are scheduled to attend training at Department of Defense schools or other military-sponsored training in the United States. This complies with the Security Assistance Management Manual (SAMM) requirements for IMS pre-departure briefings and may be viewed by international military students before their departure from their home country in lieu of in-person briefings provided by US Security Cooperation Organizations (SCOs).  
The International Military Visitor Briefing learning guide is also available. This guide provides important information to international military personnel scheduled to visit the United States.

**Quick Find**  
Can't find something? Just enter all or part of what you're looking for in the box below, click one of the suggestions that pop up, and you will quickly be taken to the correct location.  
Enter all or part of feature name  
**Links**  
Groups of specialized links to web sites and other resources that are of special interest to those in the Security Cooperation community.  
For Students  
Information Guide  
Base Access  
Blackboard Login/Help  
Bus Schedule  
Directions to WPAFB & Billeting  
Inclement Weather Policy  
International Students  
Student Survey  
Travel Voucher  
Contact Request  
**Upcoming Classes**  
Shown below are DISCS classes scheduled for this month and/or next month. Classes are held on Wright-Patterson Air Force Base, Ohio unless indicated otherwise. Please see the Class Schedule for a complete list of all upcoming classes.

5 - 9 Dec	SCM-F3
Alexandria, VA	SCM-C
5 - 9 Dec	SCM-F3
12 - 16 Dec	SCM-F3
12 - 16 Dec	SCM-F

**Mobile Device Compatibility**

<http://www.discs.dscamil>

## Author Note

Stacy Poto, Senior Service College Fellow, Picatinny Arsenal NJ and former Deputy Product Director for Special Ammunition and Weapon Systems within the Joint Program Executive Office for Armaments and Ammunition under the Assistant Secretary of the Army for Acquisition, Logistics and Technology.

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Correspondence concerning this paper should be addressed to Ms. Stacy F. Poto, Picatinny Arsenal, NJ 07806; email: [stacy.f.poto.civ@army.mil](mailto:stacy.f.poto.civ@army.mil)