

Fall 2023

More with Less: How Visual Media Can Improve Training

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Author Note

This Project was completed for the Bachelor of Applied Science with Certificate in Leadership Program at Boise State University, Boise, Idaho

Abstract

The human mind is only able to process a finite amount of information. Learning new processes can invoke significant stress levels. By applying modern research into brain processing and tailoring visual media to capitalize on those processes we can reduce overall stress while optimizing the learning process expediting information uptake and application.

Keywords: Learning, Visual-Media, Stress Reduction.

Section 1: Introduction to your Capstone Project

I have worked in administration for almost two decades. Within the bureaucracy, everything has a how-to manual where everything is written down. You can pick up the continuity binder read through it and learn the task at hand the job as a whole. The one that waited for me on my desk was 6 inches thick. Within it, there were references to thousands of other pages of instructions. My predecessor was gone so there was no handoff. Instead, there were millions of dollars, dozens of projects, and hundreds of stakeholders depending on me to get their money in the right places. They needed me to learn this Finance job and they needed me to learn it yesterday. I knew I was going to end up in jail for fraudulent spending somehow. The delays piled up, and my checklist on my dry-erase board filled up with to-do's so much I had to get a second board.

People would come into my office with asks and I would just point to the board to add it to the pile. From sun up to sun down, I toiled away stressing that each process I learned I was doing wrong with the threat of financial and personal consequences looming over me. I ate drank and slept finances for months. I took no days off because I was the only person in the office and money makes the world go round.

That was two years ago. I worked as my organization's Chief and sole Finance Officer for almost two years before they finally hired me a team member. In fact they gave me five and one final deadline. I was told to train them up because I was being repositioned to a different office, across the world. So I needed to train them, and I needed to train them quickly. I thought back to how I learned the job and knew I could not in good conscience put them through the stress fest that I had gone through. So I needed to do it differently. I needed to do it smarter, in ways less stressful than what I had to go through.

When tasked with monumental tasks such as teaching 5 people a career field in a short time you look for areas in the process where you can get the most return on your investment. And I knew that thousands of pages of words was a great place to start.

“Based on the analysis of 190 studies (18,573 participants), we estimate that the average silent reading rate for adults in English is 238 words per minute (wpm) for non-fiction and 260 wpm for fiction.” (Brysbaert, 2019) In contrast by concentrating on visual media, we could take the age-old adage of a picture being worth a thousand words. In fact a picture is worth closer to sixty times that “The human brain processes visuals around 60,000 times faster than text by quickly deciphering illustrative elements simultaneously, whereas when dealing with text, it has to decode elements in a sequential manner, thus, taking more time to process the information.” (Bay Atlantic University, 2022)

Additionally, there was a key issue to consider in the learning process and that was the stress of learning itself “Immediately on encountering something that causes stress (known as a ‘stressor’), changes are triggered in different signaling chemicals in the brain (Joëls & Baram, 2009). As a result, there is a change in activity in brain areas involved in arousal, alertness, and attention (particularly sustained attention) (Joëls et al., 2011). These changes alter the way that we pay attention and learn in complex ways” (Mind Brain and Education, 2021) Stress can have a negative feedback loop on the learning process and should be avoided as much as possible and if unavoidable then mitigated into a fun challenge compared to an impossible task.

So I went into this project with two main goals. Make it visual, and make it less stressful.

We started the project with a brainstorming session. I wanted to have the team involved. People are more receptive to change when they are helping drive the change. We wanted the project to be most beneficial to the learning styles and needs of the team themselves. Suggestions

flowed in and we highlighted common themes such as not knowing why we had to route certain forms or where it was in the process as a whole. We would take pages of guidance and create quick and easy explanation pages that visually showed where you were in the process and what our section looked like in the overall process. The final product could explain our job quickly with zero experience into why we were doing things and the importance of it. This gives anyone involved a sense of purpose and accomplishment and anyone who helped us along the way could see where they had helped out in the bigger picture.

Section 2: Elements coming together

I lead my team through two main perspectives. Driving change and empowering others. I could see the end goal within my mind but I knew if I simply created that and implemented it I would get minimal buy-in. By empowering my team members to be involved in the project creation and implementation their buy-in would increase substantially because it went from my project to the team's project. It wouldn't be my implementation it would now be the teams' product.

As we innovated the project I ensured the entire team was of the mindset that this was not simply us trying to create a new product where we could bounce back or use one of the other. I made them understand that the why of all of this was that we were improving the process. Concentrating on the Why was key because as Simon Sinek stated when explaining the golden circle “lifting yourself out of the ”what” you do and the “how” you do it in order to think about why you do what you do.” is key to getting people to understand your end goal and the impact you are aiming for. We were creating a smarter more efficient way to learn while reducing the stress for ourselves and all future team members.

As we formed the visual guides we tailored them to our intended audience. One of the best ways to reduce stress is to treat people with trust and respect. If I show someone two pictures of a piece of paper on a desk one with the paper on the left and one with the paper on the right and tell them that it is the same paper and desk I can operate on the assumption that they will also assume that the paper moved instead of teleported. The previous guidance would walk you through every single action to get the paper from one side of the desk to the other. In a movement of emotional intelligence and trust in our team member's intelligence we opted to simply show two photos and drop pages of hand-holding.

We wanted to be creative in our project while also avoiding visual overstimulation. This led us to implement a slider metric in our process visuals. At a quick glance, you could see where this action was on our timeline and on the bigger-picture timeline. Many of our documents are processed through our office as only a portion of their total lifecycle but we wanted to show the entire cycle to help convey where we were in the big picture and give the action a meaningful purpose.

We also wanted to make the training manual useful beyond simply training the process. The previous guidance was a printed-out binder with no limited ability to cross-reference. By incorporating hyperlinks and cross-referencing we turned the digital documentation into a useful repository of information. This came as direct feedback from my team members' desire to be able to know at the click of a button what a specific acronym stood for compared to the old way of having to learn by digging for information. This proved especially useful when there were multiple definitions for the same acronym within the same sentence. A simple hover over now clarified the sentence for the uninitiated.

The final innovation of our project was that we embraced digitization completely. During

creation, we found that we were naturally utilizing the find function instinctually. Almost all computer users know how to search for keywords. It was one final way to expedite information. No longer would a user need to manually flip through thousands of pages of information back and forth.

Section 3: Results

So here we were with the final product in place. We had reduced information overload on a scale of 60 thousand words per task. We reduced stress by making the tasks less daunting and easier to process. The measured impact was not numerical but was measured by the amounts of team members stating how much easier the new process was and how quickly they were comfortable and ready to take over their assigned roles.

Section 4: Conclusion

As anticipated the new process streamlined and increased the uptake of information for my team members while reducing overall stress compared to the previous methods. It was satisfying to watch my team members learn individual processes that took me weeks to complete in mere hours. Reflecting on the success and the lessons learned along the way and applying what I have learned about brain information processing In future projects with more time I would incorporate more learning styles beyond visual. Auditory and tactile can help cement knowledge by expediting neural pathway development further streamlining information uptake as explained by Judy Willis. “The more regions of the brain that store data about a subject, the more interconnection there is. This redundancy means students will have more opportunities to pull up all of those related bits of data from their multiple storage areas in response to a single cue. This cross-referencing of data means we have learned, rather than just memorized” (Willis, 2023)

Section 5: References

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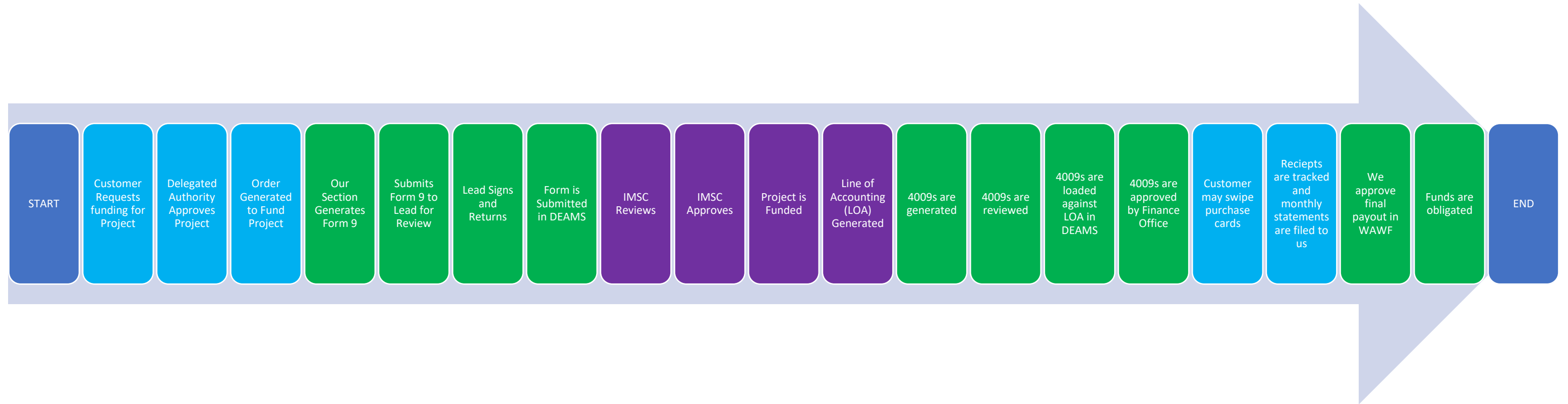
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Section 6: Appendix

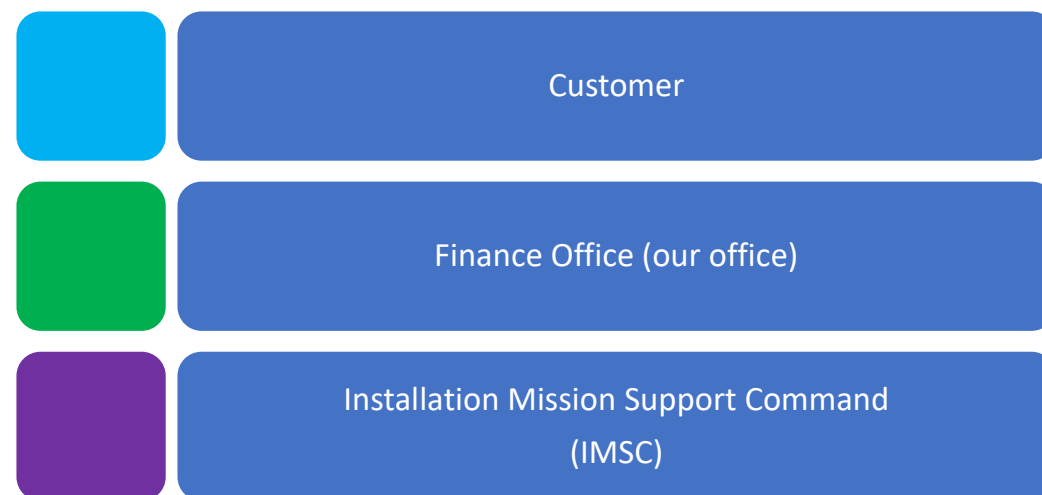
[Project Link](#)

PROJECT FUNDING FOR PURCHASE CARDS

OVERALL PROCESS



Areas of Responsibility



- This Training Aid shows How funding flows from start to finish for a specific Project Purchase and the Finance Office responsibilities.
- Stakeholders Involved are the Customer, the Finance office, and IMSC.
- Forms Involved are
 - [Form 9](#)
 - [Form 4009](#)
 - Monthly Credit Card Statements
- Programs Involved are
 - Defense Enterprise Accounting Management System (DEAMS)
 - CITI Bank
 - Wide Area Work Flow (WAWF)

PROJECT FUNDING FOR PURCHASE CARDS

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PROJECT FUNDING FOR PURCHASE CARDS

AF FORM 9

REQUEST FOR PURCHASE				NO.	
INSTALLATION Deployed Wing			DATE		
TO: CONTRACTING OFFICER Deployed CCO			CLASS		
THROUGH Deployed customer			CONTRACT, PURCHASE ORDER OR DELIVERY ORDER NO.		
FROM: <i>(Insert RC/CC, if applicable)</i>					
IT IS REQUESTED THAT SUPPLIES AND SERVICES ENUMERATED BELOW AND IN THE ATTACHED LIST, BE PURCHASED FOR _____ FOR DELIVERY TO _____ NO LATER THAN _____					
ITEM	DESCRIPTION OF MATERIAL OR SERVICES TO BE PURCHASED	QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
0001	1.5 Liter Bottled Water (12 per case)	500	CS	10.00	5000.00
COORDINATION: COMM: _____ LGT: _____ LGS: _____ Deliver to: Bldg 1207 / Customer POC: _____ Phone: _____					
TOTAL					\$
PURPOSE					
DATE	TYPED NAME AND GRADE OF REQUESTING OFFICIAL	SIGNATURE			
		TELEPHONE NO.			
DATE	TYPED NAME AND GRADE OF APPROVING OFFICIAL	SIGNATURE			
I certify that the supplies and services listed above and in the attached list are properly chargeable to the following allotments, the available balances of which are sufficient to cover the cost thereof, and funds have been committed.					
ACCOUNTING CLASSIFICATION					AMOUNT
DATE	TYPED NAME AND GRADE OF CERTIFYING OFFICIAL	SIGNATURE			

AF FORM 9
MAR 77



- This Training Aid shows an example of how a FORM 9 is accomplished
 - All blocks are filled out with relevant information
 - Item descriptions must be detailed!
- Once completed you will route to your supervisor for review
- Supervisor will route to Lead for Signature and return for routing in DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

FORM 9 PROCESS



Areas of Responsibility

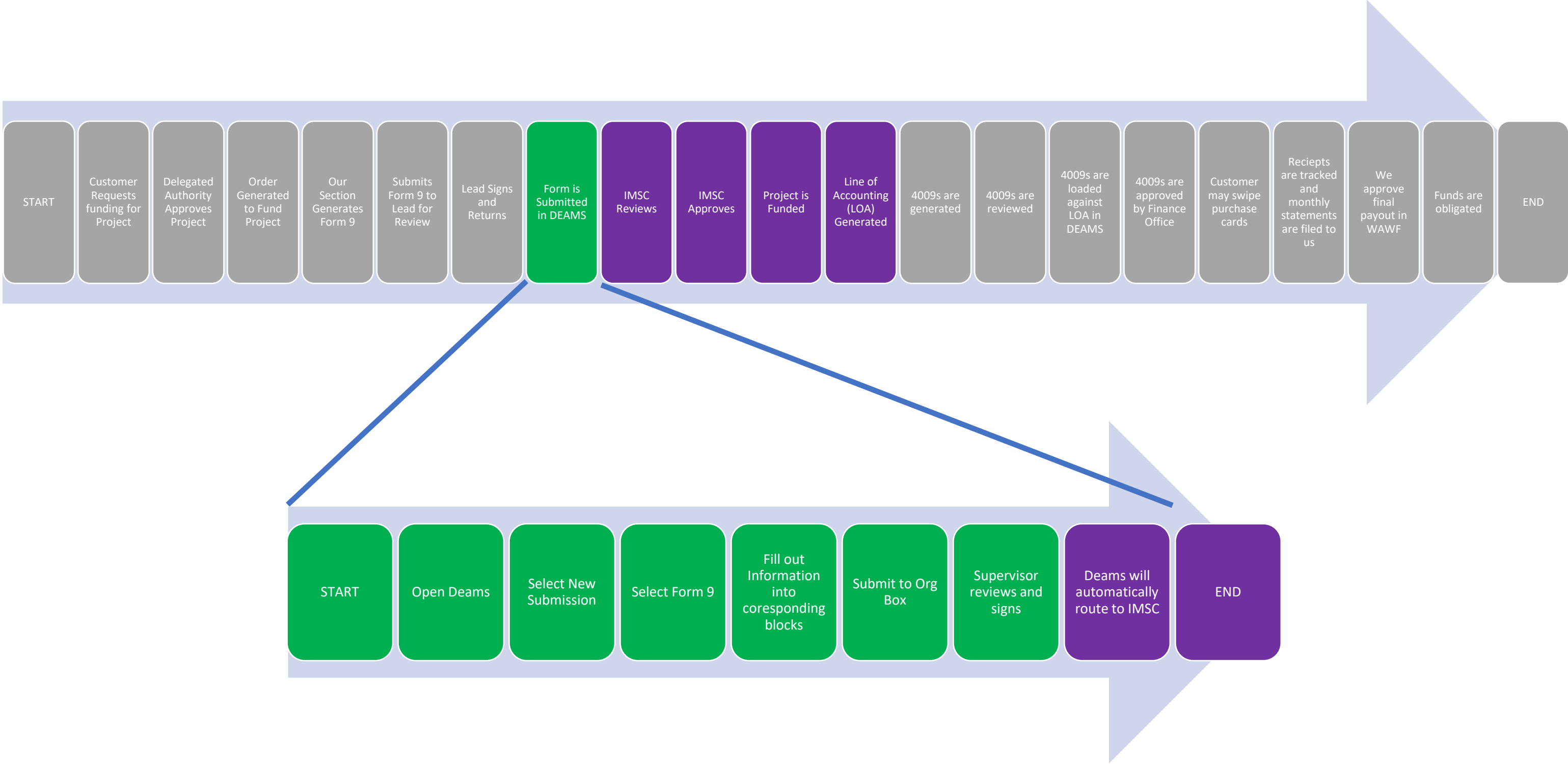
Finance Office (our office)

Installation Mission Support Command
(IMSC)

- This Training Aid shows how a FORM 9 is accomplished
- Stakeholders Involved the Finance office, and IMSC.
- Forms Involved are
 - [Form 9](#)
- Programs Involved are
 - DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

FORM 9 ROUTING IN DEAMS



PROJECT FUNDING FOR PURCHASE CARDS

Areas of Responsibility

Finance Office (our office)

Installation Mission Support Command
(IMSC)

- This Training Aid shows how a FORM 9 is routed in DEAMS
- Stakeholders Involved the Finance office, and IMSC.
- Forms Involved are
 - [Form 9](#)
- Programs Involved are
 - DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

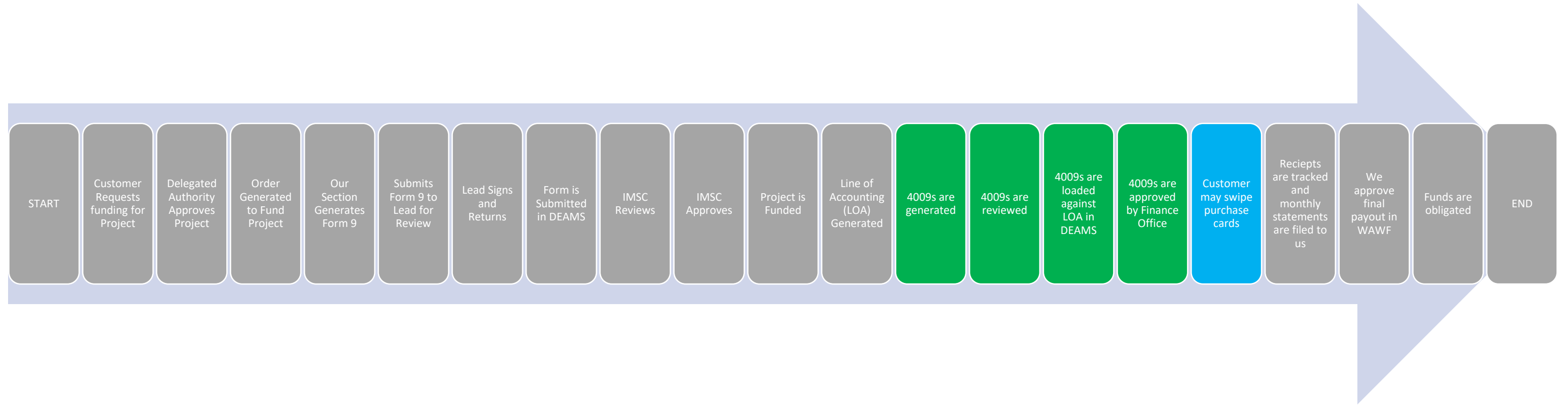
AF FORM 4009

GOVERNMENT PURCHASE CARD FUND CITE AUTHORIZATION				
DOCUMENT NUMBER:	DATE ISSUED	CHANGE NO.	EXPIRATION DATE	MASTER ACCOUNT CODE
INSTRUCTIONS TO APPROVING OFFICIAL				
<p>This form is to be used by the Approving Official (AO) to request authority to expend funds for Government Purchase Card transactions. AO shall coordinate with Unit Resource Advisors (RA) to initiate requests for funding and to establish new managing accounts. Unit RAs shall provide a copy of the certified AF Form 4009 to the AO. This funding document is issued to establish a Master Account Code assigned to the accounting classification cited below. This document also supports the reservation of funds when applicable. An amount equal to 1/3, 1/2, or the remaining balance of the quarterly amount will be obligated during the month that this document remains in effect. The accounting classification below will be charges for all authorized purchases made by approved cardholders. Cardholders are required to maintain a transaction log with a running balance of available funds. Cardholders must not expend funds after the expiration date shown below even if an available balance remains. If cumulative expenditures exceed the commitment amount shown below, the card-holder and AO can cause a violation of DFAS-DE7200.1R and may be held pecuniary liable and be subject to disciplinary action. A separate funding document and Purchase Card account must be established for purchases to be charges to a different appropriation. Failure to certify and promptly submit the Approving Official's Monthly Summary Statement will result in the withdrawal of funding. Return this document to the Financial Services Office (FSO) upon expiration.</p>				
REMARKS				
REQUESTING OFFICIAL	OFFICE SYMBOL	RESOURCE ADVISOR	OFFICE SYMBOL	
PHONE NO.		PHONE NO.		
PRIOR QUARTERLY AMOUNT	INCREASE (+)	DECREASE (-)	NEW QUARTERLY AMOUNT	
ACCOUNTING CLASSIFICATION				
FUNDING CERTIFYING OFFICIAL'S STATEMENT				
I CERTIFY THAT THE NEW QUARTERLY AMOUNT ABOVE WILL BE AVAILABLE ON THE FIRST DAY OF EACH QUARTER UNLESS OTHERWISE ADVISED BEFORE THAT DATE.				
SIGNATURE		TYPE NAME OF FINANCIAL SERVICES OFFICER OR OFFICIAL DESIGNEE		
REQUESTING OFFICIAL		TELEPHONE NUMBER		

- This Training Aid shows an example of how a FORM 4009 is accomplished
 - All blocks are filled out with relevant information
 - Remarks must be detailed! Use the Five W's
- Once completed you will route to your supervisor for review in DEAMS
- Supervisor will route to Lead for Signature in DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

FORM 4009 PROCESS



Areas of Responsibility

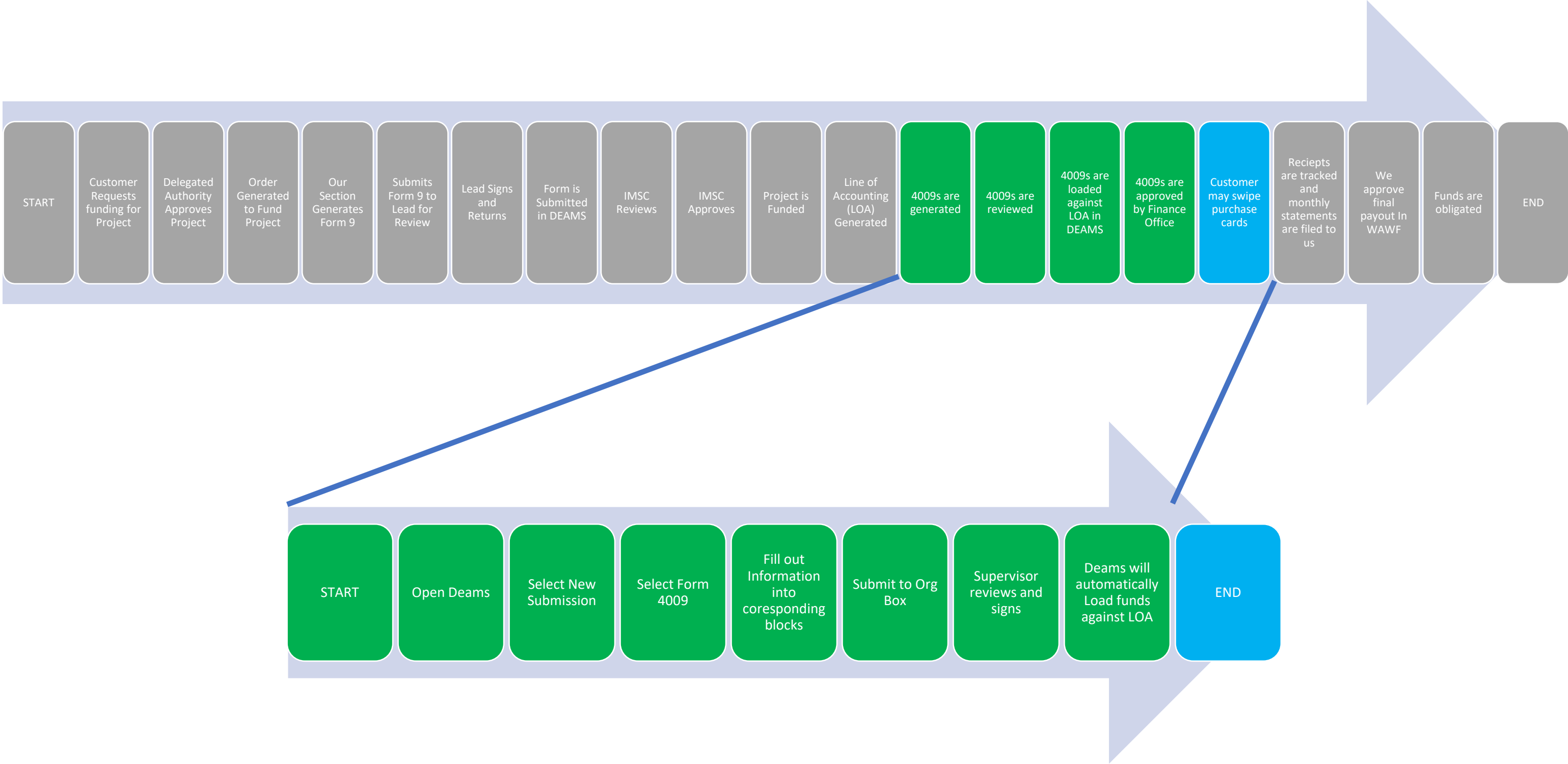
Finance Office (our office)

Customer

- This Training Aid shows how a FORM 4009 is accomplished
- Stakeholders Involved the Finance office, and the Customer.
- Forms Involved are
 - Form 4009
- Programs Involved are
 - DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

FORM 4009 ROUTING IN DEAMS



PROJECT FUNDING FOR PURCHASE CARDS

Areas of Responsibility

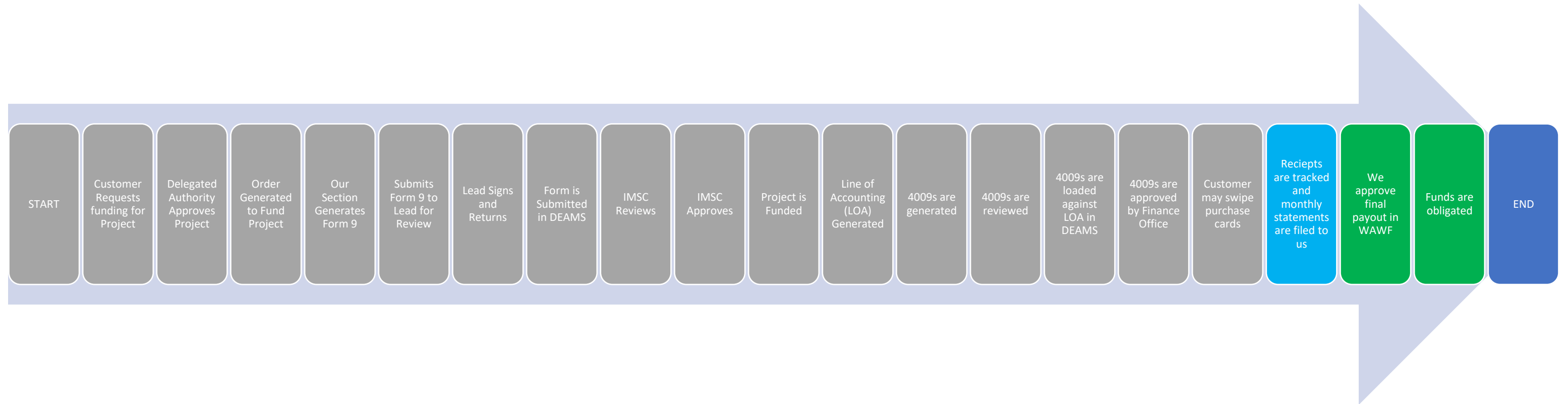
Finance Office (our office)

Customer

- This Training Aid shows how a FORM 4009 is routed in DEAMS
- Stakeholders Involved the Finance office, and the Customer.
- Forms Involved are
 - [Form 4009](#)
- Programs Involved are
 - DEAMS

PROJECT FUNDING FOR PURCHASE CARDS

RECIPT TRACKING AND FUND OBLIGATION



Areas of Responsibility

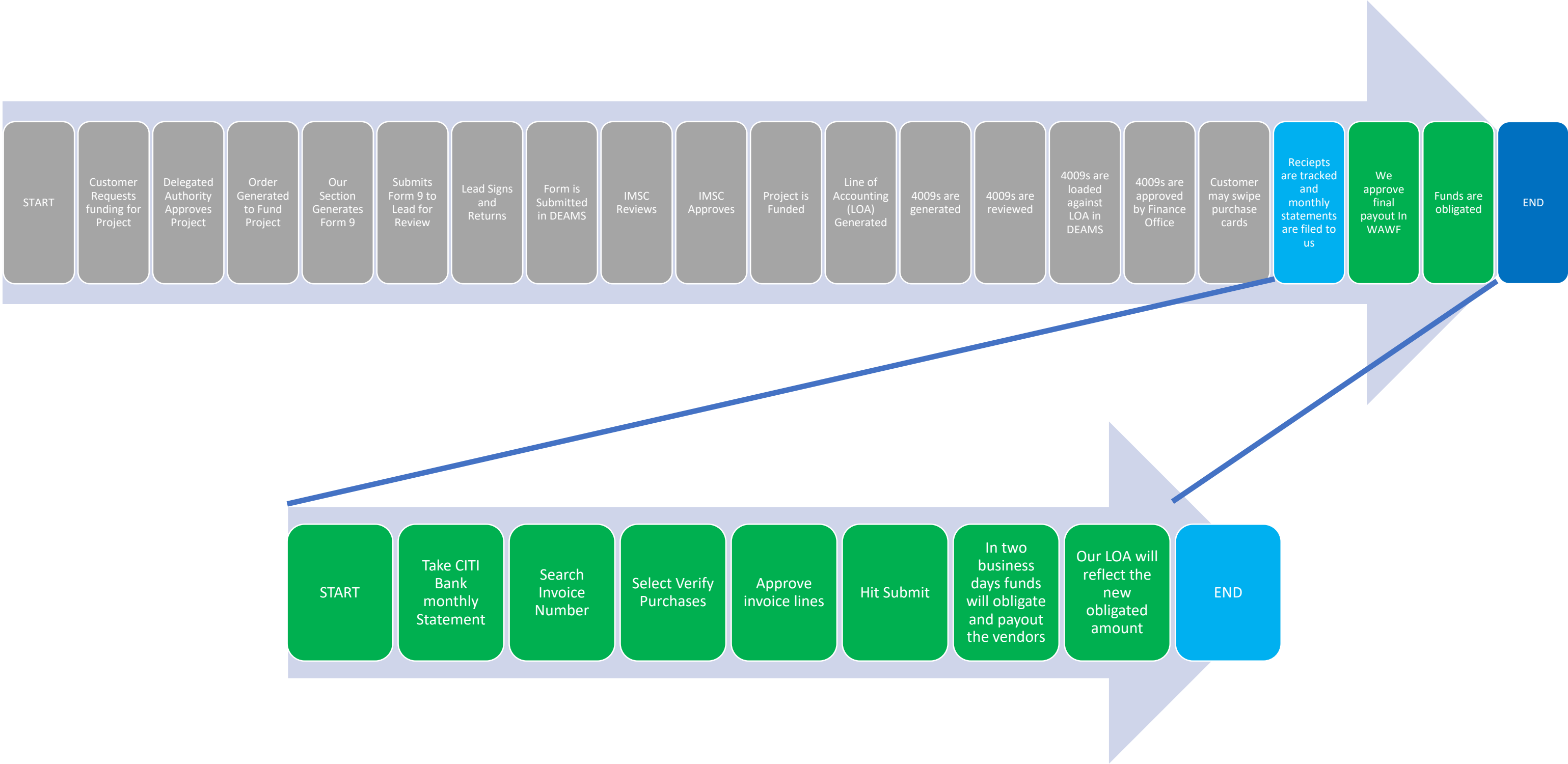
Customer

Finance Office (our office)

- This Training Aid shows How receipts are tracked and filed in WAWF
- Stakeholders Involved are the Customer, and the Finance office.
- Forms Involved are
 - Monthly Credit Card Statements
- Programs Involved are
 - CITI Bank
 - Wide Area Work Flow (WAWF)

PROJECT FUNDING FOR PURCHASE CARDS

RECEIPT ROUTING IN WAWF



PROJECT FUNDING FOR PURCHASE CARDS

Areas of Responsibility

Finance Office (our office)

Customer

- This Training Aid shows how a Receipts are filed in WAWF and funds are moved from committed to obligated.
- Stakeholders Involved the Finance office, and the Customer.
- Forms Involved are
 - Monthly Credit Card Statements
- Programs Involved are
 - WAWF