



## Table of Content

## Foreword

## Introduction

### Module 1: The Challenge of Creating Innovation in Organizations

1.1	What is Innovation?	3
1.2	Why Do We Need Innovation in Government and Why Is It So Hard?	3
1.3	How Can I Bring Innovation to My Organization?	4
1.4	Innovation Organization and Innovative Organizations	5
1.5	Defining the Innovation Problem	6
	Use Case 1: CISA's Innovation Hub	7
1.6	Framing the Innovation Strategy	8
1.7	Staying Alive in Creating Your Innovative Organization	9
	Module 1 Key Takeaways	9
	<i>Exercise: Defining Your Innovation Strategy</i>	10

### Module 2: The Innovation Pipeline

2.1	What is The Innovation Pipeline?	13
2.2	Why Do We Need an Innovation Pipeline?	14
2.3	Why Will the Innovation Pipeline Help Us Achieve Mission?	14
2.4	What Does The Innovation Pipeline Entail?	15
	Sourcing Problems	17
	Curating and Prioritizing Problems	19
	Discovering Problems	21
	Incubating Solutions	23
	Transitioning Solutions	24
2.5	Crafting Your Innovation Pipeline	25
2.6	Pipeline Infrastructure Resources	26
2.7	Losing Velocity Through Attrition	27
2.8	Getting Started in Creating Your Innovation Pipeline	28
	Use Case 2: U.S. Army's Rapid Equipping Force	29
	Module 2 Key Takeaways	30
	<i>Exercise: Mapping Your Innovation Strategy to the Innovation Pipeline</i>	31

### Module 3: Innovation Organization Models

3.1	Innovation Organization Models	35
3.2	Types of Innovation Federal Organizations	35
	Commercial Technology Acquisition	37
	Use Case 3: Department of Defense's Defense Innovation Unit	38
	Workforce Engagement	39
	Use Case 4: National Aeronautics and Space Administration's NASA@WORK	39
	Leveraging Academia and Research	40
	Use Case 5: DHS Hacking for Homeland Security	40
	Prizes & Challenges	41
	Makers	41
	Facilitators	42

3.3	Understanding Startup Culture	42
	Module 3 Key Takeaways	43
	<i>Exercise: Creating Your Innovation Model</i>	44
<b>Module 4: Building Innovation Organizations</b>		
4.1	Building Innovation Organizations	49
4.2	Key Components of Innovative Organizations	49
	People	
	Partnerships	
	Use Case 6: SOFWERX	51
	Contracting Authorities and Acquisition	
	Funding	
	Agency Support	
	Communications	
4.3	Building an Operational Support Plan	57
	Module 4 Key Takeaways	58
	<i>Exercise: Resourcing Your Innovation Pipeline</i>	59
	<i>Exercise: Mapping Your Agency's Acquisition Process</i>	60
<b>Module 5: Building Your Stakeholder Network</b>		
5.1	Building Your Stakeholder Network	63
5.2	Leveraging Stakeholders to Drive Innovation	63
5.3	Key Stakeholders to Drive Innovation	64
	Use Case 7: US Agency for International Development's Global Innovation Exchange	65
5.4	Mapping Stakeholders	66
5.5	The Importance of Stakeholders	66
5.6	Creating a Stakeholder Map	67
5.7	Communicating with Stakeholders	67
	Module 5 Key Takeaways	67
	<i>Exercise: Mapping Your Stakeholders</i>	68
	<i>Exercise: Building Your Stakeholder Communication Plan</i>	69
<b>Module 6: Tools to Support an Innovation Pipeline</b>		
6.1	Tools to Support an Innovation Pipeline	73
6.2	Leveraging Tools to Drive Innovation	73
	Use Case 8: U.S. Navy's Tactical Advancements for the Next Generation (TANG)	75
6.3	Why It's Important to Get Commercial Technology into Government	78
	Module 6 Key Takeaways	80
<b>Module 7: Creating and Maintaining an Innovation Culture</b>		
7.1	Creating and Maintaining an Innovation Culture	83
7.2	Getting Innovation Adopted	83
7.3	Instrumenting Your Innovation Pipeline	84
7.4	Monitoring Progress of Your Innovation Pipeline	85
7.5	Using Your Stakeholders	86
7.6	Project Management Under Fire	86
7.7	Killing a Project or Program	87

Module 7 Key Takeaways	87
<i>Exercise: Mapping Potential Roadblocks</i>	88
<b>Module 8: Metrics That Matter: Outcome-Based Performance</b>	
8.1 Metrics That Matter – Outcome-Based Performance	91
8.2 What to Measure in Your Innovation Pipeline	91
8.3 When to Measure Your Innovation Pipeline	91
8.4 Measuring the Impact of Your Innovation Pipeline	92
8.5 How to Measure Elements of Your Innovation Pipeline	92
8.6 How to Measure Results of Your Innovation Pipeline	93
8.7 Communicating Your Innovation Pipeline	96
Module 8 Key Takeaways	96
<i>Exercise: Creating Metrics to Measure Your Innovation Pipeline</i>	97
<i>Exercise: Innovation Pipeline Self-Assessment</i>	99

## Glossary

## Appendices

Appendix A: Innovation Pipeline Infrastructure	107
Appendix B: Innovation Pipeline Inputs, Activities, and Outputs	112
Appendix C: Problem Sourcing & Good Problem Owners	118
Appendix D: Creating "How Might We" Statements	120
Appendix E: Talking to Humans	121
Appendix F: Interview Notes Template	122
Appendix G: Conducting Remote Interviews	125
Appendix H: Problem Curation and Discovery Tips and Questions	127
Appendix I: Assessing Problems and Solutions: A Step-by-Step Guide	128
Appendix J: Mission Model Canvas	132
Appendix K: Value Proposition Canvas	134
Appendix L: Assessing Technology Progress Toward Deployment	135
Appendix M: Creating a Transition Agreement	139
Appendix N: Problem and Solutions Progress Map and Scoring Matrix	142
Appendix O: Periodic Innovation Pipeline Assessment	144