Lean Startup Method (LSM) and Agile (Scrum) for Initial Project Planning (IPP)

“Getting It Right, Right From the Start!”

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JHU Instructor (Software Systems Engineering)
LSM/Agile IPP Presentation slides are posted:

• In INCOSE CONNECT:
  • at the Object-Oriented Systems Engineering Method (OOSEM) Working Group site.

• In Dropbox:
  • https://tinyurl.com/ycmsdlbo
LSM/Agile Presentation Topics

Topics for this **LSM/Agile IPP Presentation:**

- Where Lean Startup Method (LSM) and Agile (Scrum) fits in Initial Project Planning (IPP).
- Introduce LSM/Agile IPP artifacts, or Focus Mechanisms:
  - ‘Six Hats’ and Agile (Scrum) for selecting the right IPP Perspectives and IPP Team
  - ‘Systems Thinking Round Table’ for vetting Project Title and Purpose
- LSM and Agile (Scrum) Product Backlog Item (PBI) for Detailed IPP Artifacts:
  - ‘Product Vision Board Extended (PVBE)’
  - Product ‘Persona’ (i.e. Stakeholder Groups) Templates/Cards
  - ‘Product Canvas’
- Project ‘Epic’ (i.e., Title-level) User Stories
LSM/Agile: Right, Right From The Start – Or Else

WALLY, WE DON'T HAVE TIME TO GATHER THE PRODUCT REQUIREMENTS AHEAD OF TIME.

I WANT YOU TO START DESIGNING THE PRODUCT ANYWAY. OTHERWISE IT WILL LOOK LIKE WE AREN'T ACCOMPLISHING ANYTHING.

OF ALL MY PROJECTS, I LIKE THE DOOMED ONES BEST.
IPP in the NASA Systems Engineering Life Cycle

Figure 3.1 - Systems Engineering (SE) Engine

IPP in the Agile (Scrum) Lifecycle
IPP in the Agile (Scrum) Life Cycle

https://tinyurl.com/y83g9vvl
LSM/Agile IPP In MBSE Roadmap

Abstract/Plain Language Problems, Issues, Needs, Scenarios, etc.

Lean Startup Method (LSM)/Agile Scrum Meetups

Consensus Project Vision, Stakeholder Groups, Product, Use Cases, Work Items, etc.

Other Model-Based Systems Engineering (MBSE) Methods

High-Level Product or Service Concept Model

Object-Process Methodology (OPM) MBSE Method

Other Product or Service Models
Hybrid LSM/Agile Scrum IPP Approach Three Stages:

1. Meetup:
   - IPP Team collaboratively develops the ‘raw’ IPP Artifacts.
   - ‘Brainstorming’ using Flip Charts, Whiteboards, Stickie Notes, etc.
   - Output is pictures of Meetup Raw IPP Artifacts.

2. Clean Up:
   - IPP Team (along with Project Development Team) collaboratively ‘cleans up’ the Meetup Raw IPP Artifacts in something like Microsoft® Office.

3. Post Up:
   - The Project Development Team (consulting with IPP Team) finalizes IPP Artifacts, then posts them into repository-based Collaboration Tools.
LSM/Agile IPP Approach – Focus Mechanisms

LSM/Agile Scrum IPP Approach **Seven Focus Mechanisms:**

FM1: Project ‘Perspectives’ (‘Hats’ or ‘Product Owners’)

FM2: Project ‘Title’ and ‘Purpose’ Statements.

FM3: Project ‘Product Vision Board Extended (PVBE)’.

FM4: Project ‘Persona List’.

FM5: Project ‘Persona Templates/Cards’.

FM6: Project ‘Product Canvas’.

FM7: Project ‘Initial Solution-Ready Work Items’.
LSM/Agile IPP - FM1: ‘HATS’

CUSTOMER

USER

SOFTWARE ENGINEER

SYSTEMS ENGINEER

OTHER STAKEHOLDERS

PROJECT MANAGER
LSM/Agile IPP - FM1: Agile (Scrum) Product Owner

Eight uGrid RM MBSE Project ‘HATS’

Project Lead
Consumer
  (Hospital, etc.)
Customer
  (County, etc.)
Engineers
  (Systems, Software, etc.)
System Integrator
Producer
Infrastructure
Ops Manager
  (County, etc.)
**FACILITATOR GUIDE** (300 words: 2.5 minutes read aloud)

At __:__00 a.m. begin. Don’t read words in parentheses.

1. Welcome, to our Systems Thinking RoundTable (RT). My name is ____, and I am today’s facilitator. The RoundTable Guide is in front of you. (Be sure new people have RT Guides). We propose to suspend judgment and experience this together without stopping for 45 minutes today. Let’s take one minute and go around the room for initial introductions—about three words: e.g., your first name, role/title, school. (Cue the person on your left).

2. Thank you and welcome again to everyone. For our reflection today, I’ll suggest the topics ___ (see bottom of page) for everyone to comment on. While we each consider the topics for a few minutes, I’ll ask for volunteers to read aloud the RoundTable Guidelines on the right. Will ____ read OUR FORMAT?... OUR PURPOSES?... GUIDELINES FOR LISTENING? ..... GUIDELINES FOR SPEAKING?.. GUIDELINES FOR RESPONDING?..

(At __:__05 a.m. please read...)  
3. Did anyone come in after the introductions?... Welcome! (Option: Ask for 3-word intro and offer RT Guide).

4. Again, today’s suggested topics are: ____*. I would like to hear everyone’s thoughts about these topics or anything else that is on your mind. Let’s each take about (__) minutes to speak. I will use a timer to help us stay on time. Please speak so that everyone can hear. What you say is important to us. (Options: I will start, or we’ll start with ____) and continue around the circle. (If time permits: a 2nd, 3rd full round.)

5. (If there is time) Anyone who hasn’t spoken who is ready to speak now?

(At __:__45 a.m. please read...)  
6. It’s time to close.

7. Thank you all for coming today. We hope to see you at a future session. If you have something more to say, ask a colleague to listen to you on your way out.

**READINGS: RoundTable Guidelines** (300 words: 2.5 min.)

**OUR FORMAT.** Our unique format is a new best practice in systems thinking. We spend 5 minutes listening to short readings and the suggested topics. We then spend 40 minutes on individual comments, time divided equally among all present (e.g. 22 people = 2 minutes each). Each session is facilitated by a different volunteering facilitator chosen from those in attendance.

**OUR PURPOSES.** We use a facilitator guide/script and basic readings—RoundTable Guidelines—for many reasons: 1- We pack in a great deal of information in a very short time, thus leaving maximum time for each of us to present our ideas. 2- The result is we hear everyone’s point of view on a topic. 3- We experience some new real-time effortless practices in equal participation: including rotating, distributed leadership; equal time; as well as a simple scaffold to facilitate conscious self-guided evolution. 4- We have found that just as we break the sound barrier when we travel faster than the speed of sound, we break the communication barrier when we hear 20 authentic viewpoints in 45 minutes—and a different facilitator at each session.

**GUIDELINES FOR LISTENING.** Listening to the 5 minutes of readings allows us the opportunity to quiet our minds and silently reflect on the topics, the readings, our inner thoughts, and our work and lives. Listening to each other's comments, we hear a great variety of viewpoints. We consciously shift our attitudes from "evaluation" to "valuation," from critiquing to appreciating, from problem-solving to ideal-seeking -- towards one another and towards ourselves.

**GUIDELINES FOR SPEAKING.** At your turn, please say your name again. Then say something about today’s topic, or anything else that is on your mind. Let’s each take only one turn to speak and limit our time, so we can offer everyone a turn. Or, if you prefer, pass your turn and just listen today.

**GUIDELINES FOR RESPONDING.** The facilitator may say “thank you” after you speak. In the interest of time and purpose, we will save all other responses to each other until after the session. We don’t want to divert others, or be diverted, from our own individual learning. If someone says something that you want to build on, you may want to make a note of it so you can do so during your turn.
Project Title:
“Microgrid (uGrid) Reference Model (RM) and Application Process”

Project Purpose:
“Use LSM to Produce Initial Work Items for uGrid RM Project”
Lean Startup Method (LSM): Introduction

• Also called, “Lean Launchpad”

• A philosophy and methodology based on 1980s Lean Manufacturing.

• A learnable and shareable stakeholder-centric method to quickly and iteratively start to develop a new product or service, or update existing products or services.

• Developed in its current form by American entrepreneur Eric Ries, founder and CEO of the Long Term Stock Exchange (LTSE).
  • A former student of Steve Blank, who pioneered the Lean Startup Movement with his Customer Development concept.

Understanding Stakeholders and Stakeholder Feedback are at the center of successful use of LSM for Initial Project Planning.
Who’s Using LSM?

- National Science Foundation (NSF) Innovation Corps (I-Corps)

- National Geospatial Intelligence Agency (NGA)
  - https://federalnewsradio.com/fed-access/2017/10/innovation-at-the-nga/

- National Security Agency (NSA)
  - https://www.acast.com/leanstartup/7-season-3-how-lean-startup-coaches-support-department-of-defense-innovation

- Office of Naval Research (ONR)

- U.S. State Department
  - https://steveblank.com/2016/10/31/the-state-department-gets-schooled-hacking-for-diplomacy/

- U.S. Government “FedTech”
  - https://www.fed-tech.org/

- Dropbox, Wealthfront, Grockit, imvu, Votizen, Aardvark
  - http://theleanstartup.com/casestudies#dropbox
LSM/Agile IPP: Process Flow

“PROBLEM VALIDATION”

Product Vision Board Extended (PVBE)

- Compliant with Lean Business Model Canvas (BMC)
- Can be shared in tools like Atlassian ‘Confluence’

“USER VALIDATION”

Persona Templates

- Can be shared in tools like Atlassian ‘Confluence’

“SOLUTION BUILDING BLOCKS”

User Story Workshop/Story Mapping

- Can be linked/shared in tools like Atlassian ‘Confluence’ & ‘Jira’

“SOLUTION-READY PBIs”

Initial Product Backlog Items (PBIs)

- Can be linked/shared in tools like Atlassian ‘Confluence’ & ‘Jira’

“SOLUTION VALIDATION”

Product Canvas

- Can be shared in tools like Atlassian ‘Confluence’

**“PROBLEM VALIDATION”**

Product Vision Board Extended (PVBE)

<table>
<thead>
<tr>
<th>Vision</th>
<th>What is your vision, your overarching goal for creating the product?</th>
</tr>
</thead>
</table>
| Target group | Which market segment does the product address?  
Who are the target users and customers? |
| Needs | How does the product create value for its users?  
What problem does it solve?  
Which benefit does it provide? |
| Product | What product is it?  
What makes it desirable and special?  
Is it feasible to develop the product? |
| Business Goals | How is the product going to benefit the company?  
What are the business goals?  
Which one is most important? |
| Competitors | Who are product’s main competitors?  
What are their strengths and weaknesses? |
| Revenue Sources | How can you monetise your product and generate revenue?  
What does it take to open up the revenue sources? |
| Cost Factors | What are the main cost factors to develop, market, sell and service the product?  
What resources and activities incur the highest cost? |
| Channels | How will you market and sell the product to the customers?  
Do the channels exist today? |

-- Compliant with Lean Business Model Canvas (BMC)  
-- Can be captured and managed as a ‘Confluence Space’
### LSM/Agile IPP – FM3: PVBE (Meetup Example)

**Facilitate a model-based systems approach to develop microgrids.**

<table>
<thead>
<tr>
<th><strong>TARGET GROUPS:</strong></th>
<th><strong>NEGS:</strong></th>
<th><strong>PRODUCT:</strong></th>
<th><strong>MSN/GOALS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- System Integrator</td>
<td>- Challenge to reconcile multiple stakeholder concerns and emerging threats</td>
<td>- Common Vocabulary</td>
<td>1. Optimize Development</td>
</tr>
<tr>
<td>- Customer</td>
<td>- Improved collaborative decision-making for acquisition and development.</td>
<td>- Multiple Views</td>
<td>2. Improved Planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Decision-making criteria</td>
<td>3. Risk Reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Scalable Scope</td>
<td>4. Improved Comms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Composable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Configurable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COMPETITORS:</strong></th>
<th><strong>REV. SOURCES:</strong></th>
<th><strong>COST FACTORS:</strong></th>
<th><strong>CHANNELS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Legacy Methods (AD HOC/RY)</td>
<td>- Governments</td>
<td>- Maintenance</td>
<td>- Professional Society (Journals, etc.)</td>
</tr>
<tr>
<td>- Non-Profits</td>
<td>- Crowd Resources</td>
<td>- Schedule</td>
<td>- Conferences/etc.</td>
</tr>
<tr>
<td>- Commercial Enterprises</td>
<td>- Non-Profits</td>
<td>- Training</td>
<td>- News Media</td>
</tr>
<tr>
<td>- Governments</td>
<td>- Venture Capitalists</td>
<td>- Tools</td>
<td>- Government Comms</td>
</tr>
<tr>
<td></td>
<td>- Commercial Enterprises</td>
<td>- Labor (Volts vs Profits)</td>
<td></td>
</tr>
</tbody>
</table>
LSM/Agile IPP – FM3: PVBE (Clean Up Example)

**VISION:** Facilitate a Model-Based Systems Approach to Develop Micro-Grids

**TARGET GROUP**
- System Integrator
- Customer

**NEEDS**
- Challenge to reconstruct multiple stakeholder concerns and emerging threats.
- Improved collaborative decision-making for acquisition and development.

**PRODUCT**
- Common vocabulary
- Multiple views
- Decision-making criteria
- Scalable scope
- Composable
- Configurable

**MISSION/GOALS**
1. Optimize Development
2. Risk Reduction
3. Improved Comms
4. Improved Planning

**COMPETITORS**
- Legacy Methods
- Non-Profits
- Commercial Enterprises
- Governments

**REVENUE SOURCES**
- Governments
- Crowd Resources
- Non-Profits
- Venture Capitalists
- Commercial Enterprises

**COST FACTORS**
- Maintenance
- Schedule
- Training
- Tools
- Labor (Vols vs Professionals)

**CHANNELS**
- Professional Societies
- Conferences
- News Media
- Government Communications
**“USER VALIDATION”**

**Persona Templates**

<table>
<thead>
<tr>
<th>PICTURE &amp; NAME</th>
<th>DETAILS</th>
<th>GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>What does the persona look like? What is its name?</td>
<td>What are the persona’s relevant characteristics and behaviours? Consider demographics, job, lifestyle, spare time activities, attitudes, and common tasks, for instance.</td>
<td>Why would the persona want to buy or use the product? What problems should the product solve? What benefits does the persona want to achieve? If there are multiple problems or benefits, identify the main one and put it at the top.</td>
</tr>
</tbody>
</table>

Choose a picture and a name that are representative, and that allow you to develop sympathy for the persona.

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-- Can be captured and managed as a ‘Confluence Space’

[Link to source](http://www.romanpichler.com/)
Ricky the Risk Manager
Logan the Logician

- Mtm the Model Maintainer
- Eddie the Environmentalist
- Nigel the NW Engineer
- AL the Standards and Governance Specialist
- Fred the Tester
- Ted the Toolsmith
- Paul the Power Provider
- Wally the Wire Guy
- Kitty the Configuration Mgr
- Nat the Natural Resource Provider

Personas

- Carl the City Planner
- Rob the Economics Analyst
- Sam the SWE
- Tony the Terrorist
- Tom the Threat Analyst
- Mike the System Integrator
- John the County Planner
- Larry the Insider
- Harry the Hacker
- Sarah the Campus Facilities Mgr
- Victoria the Venture Capitalist
## LSM/Agile IPP – FM4: Persona List (Clean Up Example)

<table>
<thead>
<tr>
<th>uGrid RM Personas (Stakeholder Groups)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ricky the Risk Manager</td>
<td>Carl the City Planner</td>
</tr>
<tr>
<td>Logan the Logistician</td>
<td>Rob the Economics Analyst</td>
</tr>
<tr>
<td>Mike the Model Manager</td>
<td>Sam the Software Engineer</td>
</tr>
<tr>
<td>Eddie the Environmentalist</td>
<td>Nigel the Network Engineer</td>
</tr>
<tr>
<td>Alan the Standards &amp; Governance Specialist</td>
<td>Tony the Terrorist</td>
</tr>
<tr>
<td>Fred the Model Tester</td>
<td>Marty the Systems Integrator</td>
</tr>
<tr>
<td>Ted the Toolsmith</td>
<td>Tom the Threat Analyst</td>
</tr>
<tr>
<td>Paul the Power Provider</td>
<td>John the County Planner</td>
</tr>
<tr>
<td>Wally the Wire Guy</td>
<td>Larry the Insider (Threat)</td>
</tr>
<tr>
<td>Kitty the Configuration Manager</td>
<td>Harry the Hacker</td>
</tr>
<tr>
<td>Nat the Natural Resource Provider</td>
<td>Sarah the Campus Facilities Manager</td>
</tr>
<tr>
<td>Victoria the Venture Capitalist</td>
<td>Rita the Systems Engineer</td>
</tr>
</tbody>
</table>


**LSM/Agele IPP – FM5: Persona Template (Meetup Example)**

<table>
<thead>
<tr>
<th>Picture/Name/Title/Role</th>
<th>Details</th>
<th>Goals</th>
</tr>
</thead>
</table>
| Sandy | - Expert MBSE Modeler.  
- Systems Engineer  
- SE Tool(s) Expert  
- Highly motivated  
- (see Resume/CV) | - Demonstrate value of MBSE in general and UGrid RM in particular.  
- Promote using models for decision-making.  
- Convey thinking and give direction to modeling team.  
- Demonstrate a real potential solution for real-world problems. |

**Ugrid RM modeler**
<table>
<thead>
<tr>
<th>PICTURE/NAME/TITLE</th>
<th>DETAILS</th>
<th>GOALS</th>
</tr>
</thead>
</table>
| Samantha          | -- Expert MBSE Modeler  
|                   | -- Systems Engineer  
|                   | -- Systems Engineering Tools Expert  
|                   | -- Highly Motivated  
|                   | -- (See Resume and CV)  | -- Demonstrate value of MBSE in general and uGrid RM in particular.  
|                   |         | -- Promote using models for decision-making.  
|                   |         | -- Convey thinking and give direction to modeling team.  
|                   |         | -- Demonstrate a real potential solution for real-world problems.  
| uGrid RM Modeler  |         |       |
“SOLUTION VALIDATION”
Product Canvas

-- Can be captured and managed as a ‘Confluence Space’
LSM/Agile IPP – FM6: Product Canvas (Meetup Example)
# LSM/Agile IPP – FM6: Product Canvas (Clean Up Example)

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>GOAL: Facilitate MBSE for uGrids</th>
<th>Metrics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>uGrid RM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target Group:</th>
<th>Big Picture:</th>
<th>Product Details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex. Samantha</td>
<td></td>
<td>-- Templates for Data Visualization</td>
</tr>
<tr>
<td>uGrid RM Modeler</td>
<td>Logical Modeling</td>
<td>-- Templates for Information Visualization</td>
</tr>
<tr>
<td>(Other Personas as decided in this Target Group)</td>
<td>Use Cases</td>
<td>-- Aggregate Data into Information</td>
</tr>
<tr>
<td></td>
<td>Scenario s (Story Boards)</td>
<td>-- Provide at least One Use Case Template for every Scenario</td>
</tr>
<tr>
<td></td>
<td>High Level Decision Support</td>
<td>-- etc.</td>
</tr>
<tr>
<td></td>
<td>External Interfaces</td>
<td></td>
</tr>
</tbody>
</table>
LSM/Agile IPP – FM7: Initial Work Items

“SOLUTION-READY PBIs”

Initial Product Backlog Items (PBIs)

- **High**
  - Small User Stories, detailed and item ready for consumption in the next iteration.

- **Medium**
  - Medium and Large User Stories. Might need to be split into smaller User Stories, or incorporate more detail.

- **Low**
  - Epics, Use Cases, larger requirement specifications, ideas.

“D-E-”

-- Can be linked/shared in tools like Atlassian ‘Confluence’ & ‘Jira’

“SOLUTION BUILDING BLOCKS”

User Story Workshop/Story Mapping

“I-N-V-E-S-T”

-- Can be linked/shared in tools like Atlassian ‘Confluence’ & ‘Jira’
LSM/Agile IPP – FM7: Initial Work Items (Meetup Examples)
<table>
<thead>
<tr>
<th>Reflect External uGrid Interfaces</th>
<th>Reflect Internal uGrid Interfaces</th>
<th>Represent Constraints</th>
<th>Enable Model Instantiations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow Established Modeling Guidelines</td>
<td>Depict Real-Life uGrid Domain</td>
<td>Reflect uGrid Infrastructure</td>
<td>Describe uGrid Logical and Physical Components</td>
</tr>
</tbody>
</table>
LSM/Agile IPP – FM7: Initial Work Items (Meetup Examples)
<table>
<thead>
<tr>
<th>Work Flow</th>
<th>Describe Electric Power</th>
<th>Reflect Arch. Behavior</th>
<th>Follow Model Guides</th>
<th>ID Products Needed</th>
<th>Reflect External Interface</th>
<th>Reflect Limits</th>
<th>Describe Model Parts</th>
<th>Enable Mods</th>
<th>Depict uGrid Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>ID Specific Needs</td>
<td>ID Simulate Needs</td>
<td>ID all User Needs</td>
<td>Review all Use Cases</td>
<td></td>
<td></td>
<td>ID Changes Required</td>
<td>ID all Hazards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ID all Policy Limits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I2</td>
<td>ID all Scenarios</td>
<td>ID all Sub Systems</td>
<td>ID all Ops Processes</td>
<td>ID Power Available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I3</td>
<td>ID all Power Mediums</td>
<td>ID all Customer Types</td>
<td>ID all Weather Limits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LSM/Agile IPP: Key Points

• This Hybrid Lean Startup Method (LSM)/Agile (Scrum) Product Backlog Item (PBI) Development Approach to Initial Project Planning (IPP) has proven itself to be an effective approach to help projects, “Get It Right, Right From the Start”.

• A small group of Decision Makers and Subject Matter Experts (SMEs) can use this approach in a series of off-site style Meetups to quickly and efficiently develop together an actionable set of IPP Focus Mechanisms that any Development Team can use throughout the life cycle of any system solution project:
  • ‘Hats’ or ‘Product Owners’ project perspectives/insights
  • Project Title & Purpose
  • Product Vision Board Extended (PVBE)
  • Persona List
  • Persona Templates/Cards
  • Product Canvas
  • Initial Set of Solution-Ready Work Items
MBSE, LSM, and Agile References

  [http://tinyurl.com/y8bazggw](http://tinyurl.com/y8bazggw)

  [http://tinyurl.com/y7nvq66c](http://tinyurl.com/y7nvq66c)

  [http://tinyurl.com/yc9ucoox](http://tinyurl.com/yc9ucoox)

  [https://tinyurl.com/y856stnk](https://tinyurl.com/y856stnk)

  [https://tinyurl.com/yby2esm9](https://tinyurl.com/yby2esm9)
LSM/Agile IPP: Presentation QR Codes

07Jun18 NDIA
LSM/Agile QR Codes

- 07Jun18 Info In Dropbox
- Eric Ries LSM URL
- Mike Pafford Contact Info
- Steve Blank LSM URL
- LSM Use URLs
- “Six Hats” URL
- BMC/MMC URL
- Roman Pichler Agile Blog URL
- Atlassian Confluence URL
- Gartner Agile URL
- Persona Cards URL
- Agile Scrum Guide URL
- MBSE, LSM, Agile Refs
THANK YOU!!

Michael E. (Mike) Pafford
Past President, INCOSE Chesapeake Chapter
Co-Chairman, INCOSE Object-Oriented Systems Engineering Method Working Group
Co-Chairman, INCOSE System and Software Interface Working Group
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