

# eli<sup>2</sup>'s Strategic Next Moves

We Again Need Your Strategic Guidance

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# We Need Your Input Again...

We've Crossed the 1<sup>st</sup> River



What's Next?



# Essence of the Message

- We Are Driven by Our Mission.
  - Create the burning desire and confidence to deliver world-changing solutions
- I am Grateful for Our eli<sup>2</sup> Partners, Our Matrixed eli<sup>2</sup> Team, and My Industry Partners.
- We've Delivered on Your Previous Requests.
- We Are Here Today to Set the Path for Our Next Evolution.
  - Undergraduate—How do we move beyond a “feel good” story”?
  - Graduate—How do we maintain and grow our impact?
  - Executive—Does the community want to come together?
  - Capability—How do we sustain our capability to deliver?

We Are Driven By Our Mission...































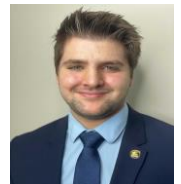



Create the Burning Desire and Confidence to Deliver World-Changing Solutions.



# I Am Grateful...Our eli<sup>2</sup> Partners Make a Difference.

Program	Partners
Undergraduate	
Graduate	
Executive	

# I Am Grateful...Our Matrixed eli<sup>2</sup> Team Makes a Difference.

Undergraduate			Graduate			CECS Dean's Office	
							
							
							
							
							
							

# I Am Grateful...My Industry Partners Provide the Learning Lab.

## US Government

- Department of Energy—NETL
- Department of Defense--TARDEC



## NASA

- Glenn Research Center
- Wallops Flight Facility
- Science Mission Directorate (Helio)



## Commercial

- EA Sports
- Zynga
- Warner Brothers Interactive Entertainment
- Raytheon
- Harris
- PSM
- GOAA



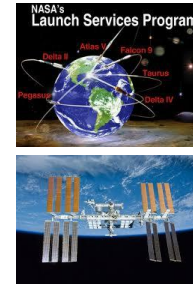
## The Community

- Men's Group
- Church Leadership



## Advisor to NASA's Kennedy Space Center

- Executive & Senior Management Teams
- Launch Services Program
- Exploration Ground Systems
- Exploration & Research Technology
- Engineering



## UCF Professor

- Lockheed Martin St. Laurent Professor
- Director—Engineering Leadership & Innovation Institute (eli<sup>2</sup>)
- Director—MSEM

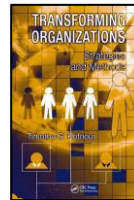
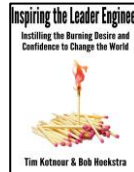


## The Family

- Husband
- Father

## The Profession

- Book Author
- Professional Speaker
- European School of Management & Technology
- Editor of the Engineering Management Journal



## Executive Education

- Harris
- KSC
- Lockheed Martin
- Raytheon
- Siemens
- WDW



## Learning Community

- Darden
- Boeing
- CCCI
- CNL
- Harris
- HD Supply
- Siemens
- WDW



# We've Delivered On Your Previous Requests... The Complete Story is Available.

- Undergraduate Program

- <https://www.cecs.ucf.edu/eli2/wp-content/uploads/2020/02/UCF-eli2-Undergrad2.mp4>
- 3:47 long

- Graduate Program

- <https://www.cecs.ucf.edu/eli2/wp-content/uploads/2020/02/UCF-eli2-MSEM.mp4>
- 3:38 long

## **Inspiring the Leader Engineer**

**Instilling the Burning Desire and  
Confidence to Change the World**



**Tim Kotnour & Bob Hoekstra**

# We've Delivered On Your Previous Requests.



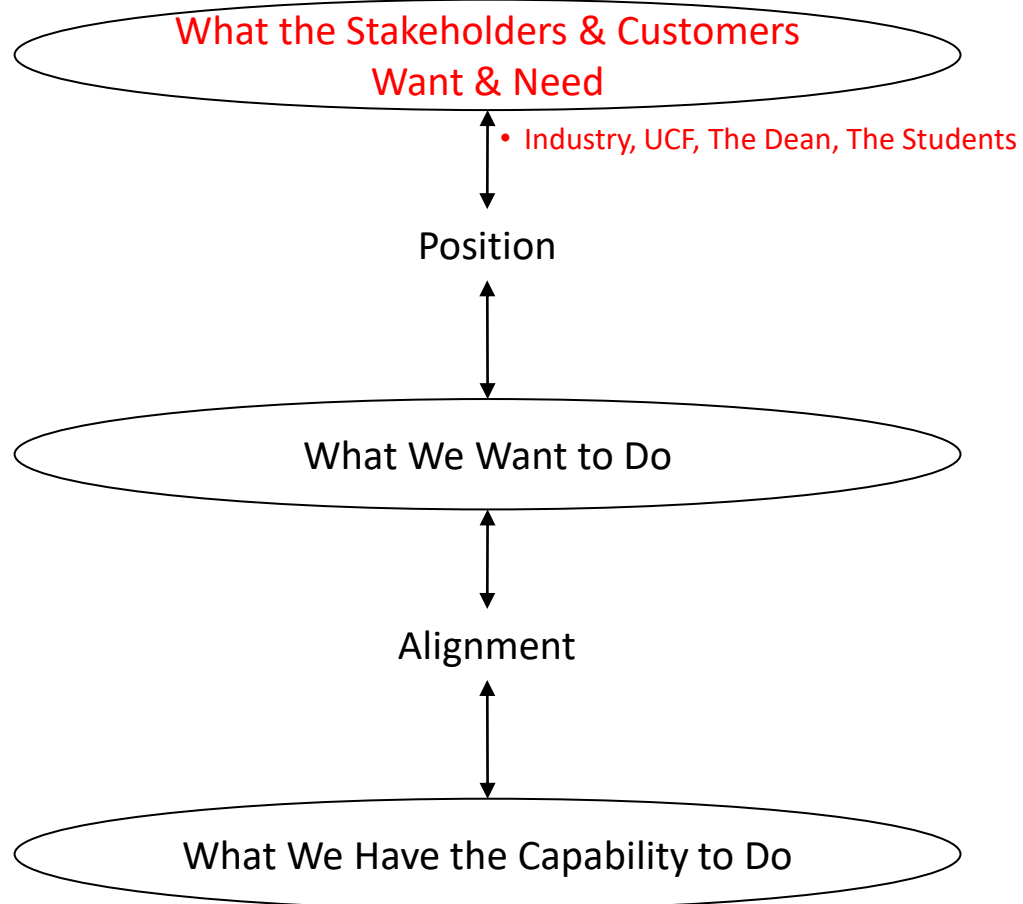
<p><b>How can new graduates/employees be more employable?</b></p>
<ul style="list-style-type: none"> <li>• All Get Some, Some Get All Program</li> <li>• Integrated Program Across All 4 Years</li> </ul>
<ul style="list-style-type: none"> <li>• 18 Program Elements</li> <li>• Significant Impacts                     <ul style="list-style-type: none"> <li>• Creativity (80%), Innovation (78%), Collaboration (79%), Accountability (72%), Solution Delivery (84%)</li> </ul> </li> <li>• Student Ownership of the Process                     <ul style="list-style-type: none"> <li>• See lunch speakers</li> <li>• Just say yes</li> </ul> </li> </ul>

<p><b>How can we lead teams to deliver innovative, world-changing solutions?</b></p>
<ul style="list-style-type: none"> <li>• Executive Style MSEM Program</li> <li>• Focused on Solution Delivery                     <ul style="list-style-type: none"> <li>• Strategy + PM + SE + Leadership</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• 9 Cohorts with 197 + 23 (in process) Alumni</li> <li>• Significant Impact to Organizations                     <ul style="list-style-type: none"> <li>• \$1 Billion in business impacts</li> </ul> </li> <li>• Significant Impact to Alumni                     <ul style="list-style-type: none"> <li>• Over 75% of the alumni had significant increases in their job responsibilities</li> </ul> </li> </ul>

<p><b>How can we become a more innovative organization?</b></p>
<ul style="list-style-type: none"> <li>• CIO Community of Practice</li> <li>• Conferences</li> <li>• Special Projects</li> </ul>
<ul style="list-style-type: none"> <li>• Ten Years of the Community of Practice</li> <li>• Solution Delivery Methodology for WDW IT</li> <li>• Leadership Development Program for PSM</li> <li>• Growth Study for GOAA</li> </ul>

# We Are Here Today to Set the Path for Our Next Evolution... We Need to Have Alignment.

## Strategic Analysis



“Leaders are path finders...leaders owe it to the organization to find the way through”  
Chester Kennedy, Former LM Executive and eli<sup>2</sup> Champion

“The choices you make today determine the choices you can make tomorrow”  
Dennis Lind, Former WDW Executive and eli<sup>2</sup> Champion

“Do your customer’s job for them”  
Bev Seay, Former SAIC Executive, UCF Board of Trustee, and eli<sup>2</sup> Champion

“Today I get to...”  
Lesa Roe, Former NASA Executive and eli<sup>2</sup> Champion



# The Undergraduate “All Get Some, Some Get All” Program is Intentional on the Impact.

<b>Number of Students Engaged in the Program Element</b>	<b>1,000s</b>	1) L3Harris Gathering Lab	5) Inspire Students to Join the Engineering Journey (EGS 1006 presentation) 6) Inspire Students to Join the Own their Academic Journey & Provide a Roadmap (EGS 1007 presentation)		10) Senior Design Boot Camp 11) Maker Spaces
	<b>100s</b>			7) NAE Grand Challenges Competition (in EGS 3030) 8) Google Sprint Competition (in EGS 3031) 9) Leaders Up Close Seminar Series (EGS 3030/3031)	12) Engineering Leadership & Innovation (EGS 4624) 13) Professional Development Workshops 14) Development Circles
	<b>10s</b>	2) Hope & Proud Breakfast 3) Freshman Social 4) eli <sup>2</sup> Interns and Student Committee			15) Engineering Leadership Minor/Certificate 16) Engineering Leadership Capstone (EGS 4950) 17) Engineering Entrepreneurship (EGS 4641) 18) eli <sup>2</sup> Interns and Student Committee
		<b>Build Community</b>	<b>Enhance Awareness</b>	<b>Enhance Understanding</b>	<b>Enhance Capability</b>
<b>Intent of the Experience</b>					

# Undergraduate Program...

## How Do We Move Beyond the “Feel Good” Story?

### Major Drivers

We need students who are technically sound, creative, innovative, collaborative, and accountable.

- Students desire to create a sense of community

### Proven Program

- All Get Some, Some Get All Program
- Integrated Program Across All 4 Years

### Objectives & Potential Moves

- Truly Infuse CICA and Career Ownership Throughout the Curriculum
  - 1) Mandatory “Professional Responsibilities Roadmap”
  - 2) Automated SDBC Tool + Multiple Lessons Learned Sessions
  - 3) “Deliverable” & Professional Practice Based Syllabi
- Help Students Build Community
  - 4) Student Led Engineering Community Building Week During 2<sup>nd</sup> Week of Each Semester
- Create a Direct Pipeline to Professional Experiences
  - 5) Direct Pipeline from EL Minor/Cert to Corporate Internship/Co-Op Programs
  - 6) Direct Pipeline from EL Minor/Cert to Corporate Leadership Programs

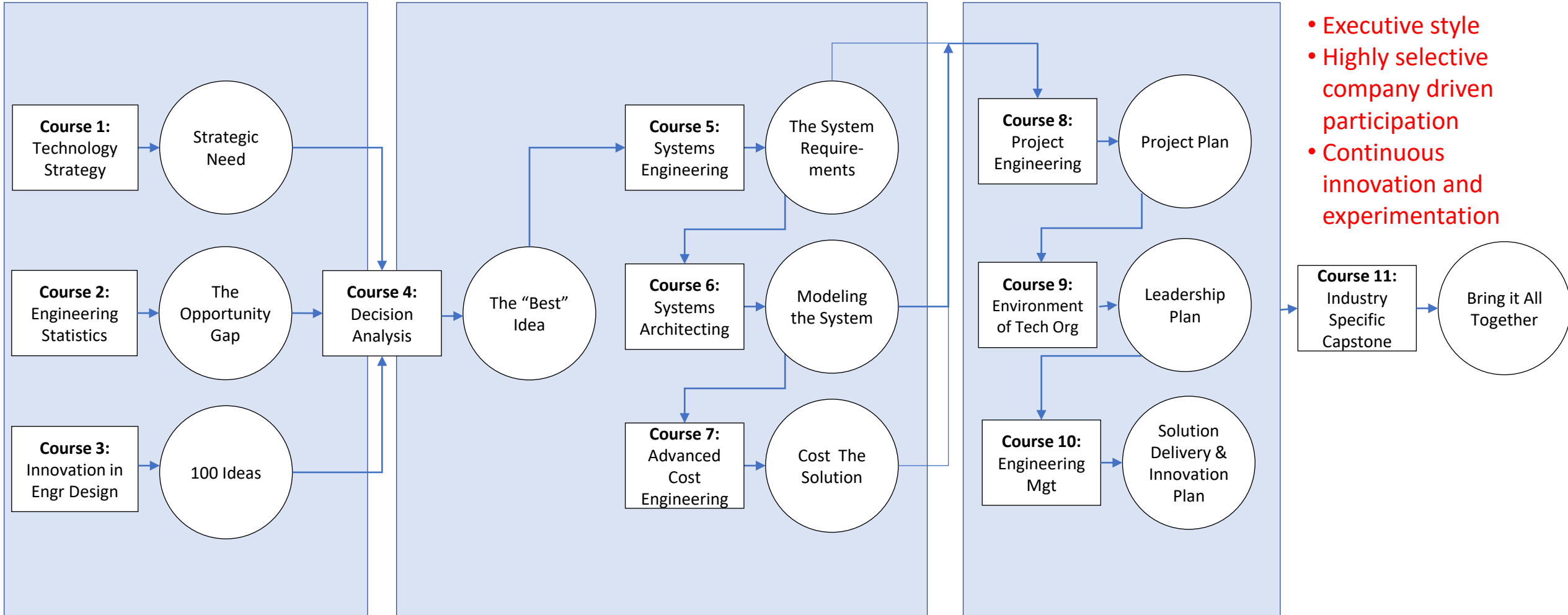
# The Graduate Program Focuses on Innovative Solution Delivery.

## Identify Gaps & Generate Ideas

## Model & Validate the Solution

## Plan & Execute the Solution

- Executive style
- Highly selective company driven participation
- Continuous innovation and experimentation



# Graduate Program...

## How Do We Maintain and Grow Our Impact?

### Major Drivers

We need teams to deliver world-changing solutions.

- The hybrid work environment is emerging

### Proven Program

- Executive Style MSEM Program
- Focused on Solution Delivery
  - Strategy + PM + SE + Leadership

### Objectives & Potential Moves

- **Operate a Sustainable Model**
  - 1) More Sustainable Business Model
  - 2) Annual Cohorts
- **Go National**
  - 3) New Delivery Models: Light Residency Program
- **Tie the Classroom Discussions with the Emerging Business Challenges**
  - 4) Applied Research Tied to Assessments in the Classroom

## Does the Community Want to Come Together?

### Major Drivers

We need for our organizations to be strategic and innovative.

- Organizations will be continuing to adapt to the “Future of Work”

### Proven Program

- CIO Community of Practice
- Conferences
- Special Projects

### Objective & Potential Moves

- Document and Share Lessons Learned Across Leaders and Organizations
  - 1) Learning Community
  - 2) “Leaders in Residence” Program (present and former industry leaders to support projects + memoirs)
  - 3) “Leaders Up Close” Series
  - 4) Non-Degree “Certificate” Workshop & Executive Education Model

# Sustainable Capability & Executive...

## How Do We Sustain Our Capability to Deliver?

### Major Drivers

We need the ability to deliver practical, experienced based instruction.

- Universities are pushing for a greater emphasis on research
- Faculty are becoming more and more focused on research

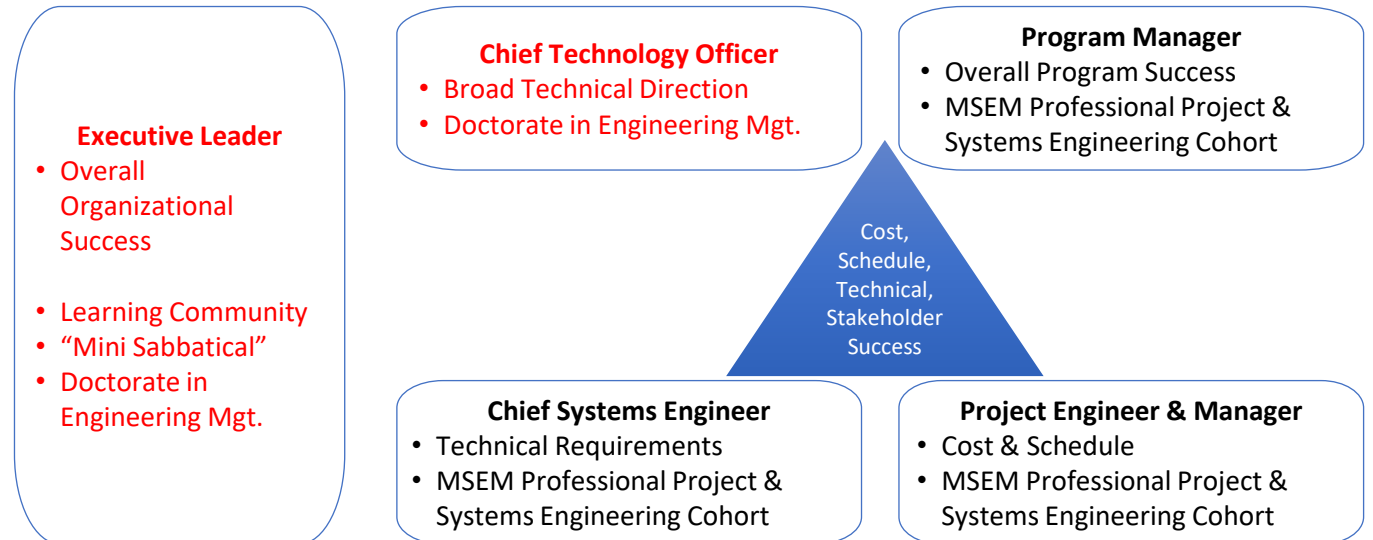
### Proven Capability

- Matrixed team

### Objective & Potential Moves

- Create a Cadre of “Professors of Practice”

- 1) Formalized “Professor of Practice” Position
- 2) Doctorate in Engineering (Management) to Develop Stream of Professors of Practice



# We Believe in Our Mission...We Need to Be Intentional on the Next Move.



Undergraduate	Graduate	Executive	Capability
<p><b>Major Drivers</b></p> <p>We need students who are technically sound, creative, innovative, collaborative, and accountable.</p> <ul style="list-style-type: none"> <li>➤ Students desire to create a sense of community</li> </ul>	<p><b>Major Drivers</b></p> <p>We need teams to deliver world-changing solutions.</p> <ul style="list-style-type: none"> <li>➤ The hybrid work environment is emerging</li> </ul>	<p><b>Major Drivers</b></p> <p>We need for our organizations to be strategic and innovative.</p> <ul style="list-style-type: none"> <li>➤ Organizations will be continuing to adapt to the “Future of Work”</li> </ul>	<p><b>Major Drivers</b></p> <p>We need the ability to deliver practical, experienced based instruction.</p> <ul style="list-style-type: none"> <li>➤ Universities are pushing for a greater emphasis on research</li> <li>➤ Faculty are becoming more and more focused on research</li> </ul>
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