

Annual Members' Meeting

12 September 2019



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Welcome and thanks for taking time to join me, Megan Jones, ICEAA's Executive Director, and your ICEAA colleagues today.

We're excited to have the opportunity to connect with you and hope that today's discussion bears fruit for you and us.

Purpose

- Describe where ICEAA is going and how we're going to get there
- Solicit your ideas and help
- Address your comments/questions

The objective of today's meeting is pretty straightforward.

Ideally, today represents the start of an open, constructive dialog that produces tangible outcomes that benefit our members, the association and more generally our profession.

The board and I have some definite ideas about the path forward, but recognize that it's critical to hear other perspectives . We have a lot of participants today, but I am hoping that you feel free to contribute to the conversation today or as a near-term follow-up.

I have a fair amount of material to share with you, so depending on how we're doing time-wise, I reserve the right to defer questions/

Tenets



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Every organization, regardless of whether it's profit motivated or not, needs a compass in the form of principles that guide it's course.

Our Vision

- Vision for the *Profession*

To be a vital, respected, indispensable and growing community of practice composed of ICEAA certified professionals recognized as best-in-class.

- Vision for the *Organization*

To be universally recognized for developing, disseminating and advocating best practices that maximize the value of the global cost estimating and analysis community to public and private sector resource decision makers.



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In 2013 during my first elected term to the board and just prior to SCEA and ISPA merging to become ICEAA, two ICEAA Chapter Presidents earlier in their careers than me (Dan Mask of Kalman and Eric Nardi from AF Aeronautical Systems Command) and I developed ICEAA's first strategic plan. A defining moment in that several month effort was creating a vision statement, but we didn't stop at one, we created two.

For those of you who haven't had the opportunity to do strategic planning, I think it's worth emphasizing why the right vision statement is critical and absolutely more than words on a piece of paper or wall.

- A vision statement is the anchor point of any strategic plan. It outlines what an organization would like to ultimately achieve and gives purpose to the existence of the organization.
- A vision statement is a descriptive picture of a desired future state, a declaration of where you are headed.
- A vision statement is a long-term view of what the organization wants to be, or how it wants the world in which it operates to be (an "idealized" view of the world).
- A good vision statement should be short, simple, and have ambition.
- A good vision statement is a memorable and inspirational summary that describes

the reason for existence as an organization – one that will help to motivate existing members and even attract high-quality new ones.

I think that both of these visions have and will stand the test of time.

A quick word re. the vision for the profession is in order. Every one of us on any given day should be conscious of delivering increasing value to stakeholders who rely on our analytical products and resulting advice. Regardless of how important a factor cost is to decision-makers inside and outside the government, not delivering the right value has led to individuals and organizations becoming irrelevant. Ask current and former employees of the Naval Center for Cost Analysis (NCCA), which has by Navy direction downsized from a staff north of 40 to one south of 20 and will likely shrink further and voluntarily as remaining staff jump from a sinking ship. There are a variety of reasons why ICEAA should be doing whatever it can to help grow our profession, most notably because growth translates to opportunities for professional advancement of our members.

Mission Statement

ICEAA is an international non-profit organization dedicated to advancing, encouraging, promoting and enhancing the profession of cost estimating and analysis, through the use of parametrics and other data-driven techniques.

We strive to facilitate the success of the cost estimating and analysis community of practice by providing members opportunities to learn, teach, collaborate, present and network in a collegial environment devoted to professional growth and success.

We also developed a mission statement which defines, at a high level, our business, objectives and approach to reach those objectives. Similar to the previous slide, I chose to underscore some of the words for emphasis sake.

2019-2021 Strategic Plan



Strategic Goals

1. Create a community of **technical excellence**
2. Create a community of **collaboration**
3. Create a community of **relevance**

The plan includes three interrelated goals, where a goal is simply a broad primary outcome

Achieving our Technical Excellence Goal

- A. Improve existing CEBoK content/platform and develop new CEBoKs (e.g., for software cost analysis) as appropriate.
- B. Improve existing certification exams and develop new certification exams as appropriate
- C. Establish web-based access to resources (i.e., advisors, study groups and exam-related materials) required to prepare for certification exams.
- D. Establish web-based forum for routine, real-time exchange of best practices, tips and tricks
- E. Provide a professional, academic quality journal for the sharing of peer-reviewed technical work and other information

Each goal has an supporting set of objectives, or measurable steps we will take to achieve the goal.

Here are the objectives for Technical Excellence. In the interest of time, I'm not going to address each of these but would appreciate you thinking about: 1) which objectives constitute value to you personally, 2) any specific ideas you have related to making these a reality and 3) if/how you'd like to help.

I should note that Dan Harper of Mitre is an example of an ICEAA member who has stepped up during the last few months to make it easy for ICEAA members to leverage the web-based CostFACTS platform developed/managed by Mitre and open to any/all ICEAA members who want to explore the benefits Cost FACTS offers relative to information sharing, dialog/collaboration on particular topics of interest, etc..

I know that some of you have already joined and are benefitting from Cost FACTS. In fact, yesterday I had the pleasure of speaking with an ICEAA member who works for the auto industry in Toronto who mentioned that he's been following and contributing to a machine learning discussion.

Achieving our Technical Excellence Goal

- H. Conduct an annual conference offering paper and training sessions that exhibit exceptional technical quality reflecting innovative, practical and compelling thought.
- I. Foster community ability to deliver additional value in the form of innovative solutions to emerging cost estimating/analysis challenges (e.g., agile software development, cloud computing, cyber, etc.)
- J. Foster community ability to deliver additional value in the form of new/innovative competencies, techniques and approaches (e.g., data science, artificial intelligence/machine learning, etc.) that constitute state-of-the-art in cost estimating and analysis

Here are the remaining objectives for technical Excellence. Please note the reference to innovative in each of these objective. Also, in relation to objective J, today is the perfect opportunity to make you aware that Karen Mourikas of Boeing is kicking off an informal ICEAA ML working group in October and promises that details will soon follow. I trust that Karen welcomes you sending her an email to express your interest. She can be reached at karen.mourikas@boeing.com.

Achieving our Collaboration Goal

- A. Conduct quarterly web-based, technical-oriented collaboration events (e.g., panel discussions, mini cost research symposia, brainstorming sessions on common needs/challenges, etc.)
- B. Establish web-based forum for routine, real-time exchange of ideas, including but not limited to follow-on dialog stimulated by collaboration events
- C. Establish partnerships with other organizations that will increase of the knowledge, skills, abilities and value of our community of practice

This slide addresses the objectives for the Create a Community of Collaboration goal.

Some of you may have participated in the first session of what's called the Engage-Collaborate-Advance Webinar series. This April session was actually a two part experiment. Part 1 of the experiment was a panel discussion amongst four notable government reps on the subject of accelerated acquisition that was attended virtually by nearly 100. Part 2 of the experiment turned out to be less follow-on discussion than I would have liked via CostFACTS, but that's OK for now.

Based on the demand the first webinar generated, we are due (actually overdue) for a second one and I welcome any ideas you have regarding topics that represent common needs/challenges.

Achieving our Relevance Goal

- A. Conduct outreach efforts to better understand the profession of cost estimating and analysis including typical educational backgrounds, employer needs, career paths and roles in the contract proposal and execution cycle.
- B. Solicit perspectives on the value of the Association to the individual professional development goals of members and capture suggestions for elevator pitches. Develop and post videos of members sharing their professional development testimonies.
- C. Engage attendees of all Association events via effective networking skills, and seek to understand attendee professional development needs. Systematically collect and report observations to Association officers at the chapter, region and international board level.
- D. Conduct research and report on evolving needs and emerging trends of our diverse community of professionals.

Everything in our strategic plan is important, but everything can't be most important. We must prioritize. More on this in a few slides.

The final slide in this section of the presentation addresses objectives for the Create a Community of Relevance goal.

As you can see, the theme across these interrelated objectives is first and foremost understanding what constitutes value to you, the members.

Based on my earlier comments emphasizing growing the profession, I urge you to think about the value to you personally in this context.

In closing this section, I would characterize the objectives presented in the last few slides as a Chinese menu of things the board views important. However, in the interest of being realistic about what can be accomplished, everything can't be most important. This is exactly why I established some priorities that will be featured later in the presentation.

Important Context for Path Forward

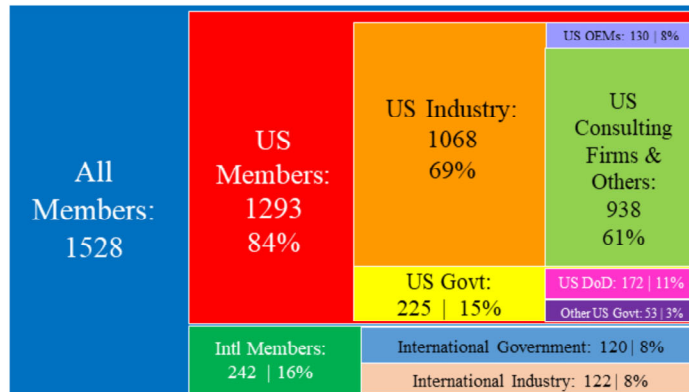


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I'm sure it hasn't been lost on you that we are 12 slides and y minutes into the brief and the only number that's come out of my mouth is the engage-collaborate-advance webinar attendance.

Have no fear, the time has come for some real numbers intended to provide some context for the priorities I have established for the association.

Membership Composition



USG represents 15% of total US membership
 Only 172 of ~ 1,500 DoD cost analysts are members
 Only 53 of ~ 500 civil agency cost analysts are members

OEMs represent 8% of total U.S. membership

This first slide depicts the composition of our current membership at a macro level. We have just over 1500 members, 84% of whom are in US, the remainder of whom are in a variety of countries far and wide, 20 to be precise. As we continue to do our version of peeling the onion as we move from left to right, there are some things that jump out at me and I suspect you.

First, as indicated in the top call-out box, the USG accounts for only 15% of total membership. While an eye opening statistic on its own, the reality becomes starker when current USG membership is compared to the approximate size of USG cost community. There are likely a number of factors driving this reality, the most important being the fact that, unlike many private sector organizations which cover employee membership dues, the USG typically won't. I view this as an opportunity for ICEAA to understand what constitutes value to USG cost analysts and determine how to most effectively deliver that value. That said, I also realize the same applies to the membership at large, since I'm confident that many of our current private sector members would not continue to be members if their employers didn't cover the dues.

As indicated in the bottom call-out box, the second thing that jumps out at me is OEMs' 8% share of total membership. I don't have any figures regarding the size of the OEM cost community, and certainly recognize that I need to be cautious in using

the general term cost community in reference to OEMs, but I am confident that there are lots of engineers, logisticians, etc. at Boeing, Lockheed, etc. who do their best cost analyst imitation on any given business day and are not members. I have some anecdotal evidence indicating ICEAA membership in some of these companies has gone down as a result of policy changes re. membership due reimbursement. I also have anecdotal evidence that key leaders who actively supported ICEAA membership have moved up and out and their successors didn't follow in suite. It is essential for leaders, outside and inside the government, to understand ICEAA's value proposition. Anyway, no different than what I said about USG membership, OEM membership is also an opportunity.

More on seizing these opportunities later.

Finally, I should note that 2018 membership growth was 4% and 2019 membership growth is 8% to date. We are going the right direction after several years of what's best characterized as stagnation.

Top US Industry & USG Employers

US Industry with 20+ members:

Technomics, Inc.	137
Tecolote Research	110
The Boeing Company	60
Booz Allen Hamilton	58
Quantech Services	50
Cobec Consulting	34
MCR	26
BAE	25
Galorath	21
Northrop Grumman	21
Lockheed Martin	20

By parent company. Includes divisions and subsidiaries.

USG with 10+ members:

Air Force	103
Navy	30
NASA	21
Dept. of Homeland Security	14
Missile Defense Agency	12
Army	10
Dept. of Energy	10

Estimated as of April 2019

Here's a snapshot of the US organizations with the largest concentration of members.

There's a reason why the organizations at the top of each list are on top. Leadership commitment to ICEAA membership.

There are numbers in the industry table that represent 100% or close to 100% participation.

Though the Air Force number does not represent 100% membership, this number would not be near as high were it not for the vision and efforts of Rich Hartley, former SES Director of the Air Force Cost Analysis Agency (AFCAA), who actively encouraged AF cost analysts to leverage what ICEAA has to offer, including certification..

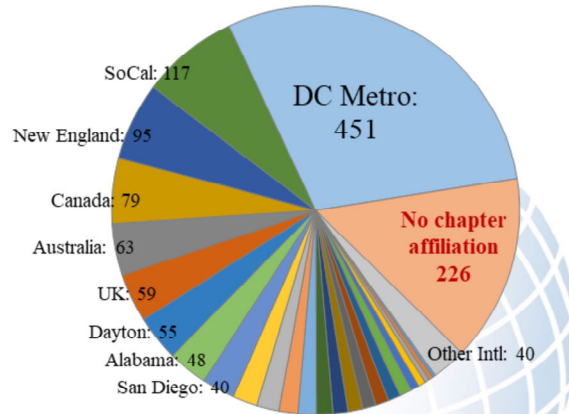
Top Chapters

Ten Largest US Chapters

DC Metro	451
Southern California	117
New England	95
Greater Dayton	55
Greater Alabama	48
San Diego	40
Central VA	30
Northwest/Washington State	27
Pike's Peak	23
St. Louis Gateway	22
No chapter affiliation	226

International Membership

Canada	79
Australia	63
United Kingdom	59
Other international	40



Canada has been our fastest growing chapter since 2017

If you aren't affiliated with a chapter, please rectify that today at iceaaonline.com/login



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This slide depicts the largest chapters inside and outside the US. Though not shown, each of these chapters fall into one of seven regions, each of which has an elected director who serves and represents his/her respective chapters.

The fact that the DC and SOCAL chapters top the list is likely no surprise to you. As noted in red, there are a large number of members who, for whatever reason, are not affiliated with a chapter. If you are one of those people or you work with people who might be in the same boat, please do what you can to rectify the situation. Lack of affiliation means you and they could be missing out on beneficial chapter events that provide learning, collaboration and networking opportunities and, as Kellie Scarbrough (Region 5 Director) reminded me, opportunities to volunteer. In the interest of full disclosure, there are U.S. chapters not shown on this list that are dormant. Regional Directors, with Megan's help, are going to do their best to work with chapter presidents to revive these chapters.

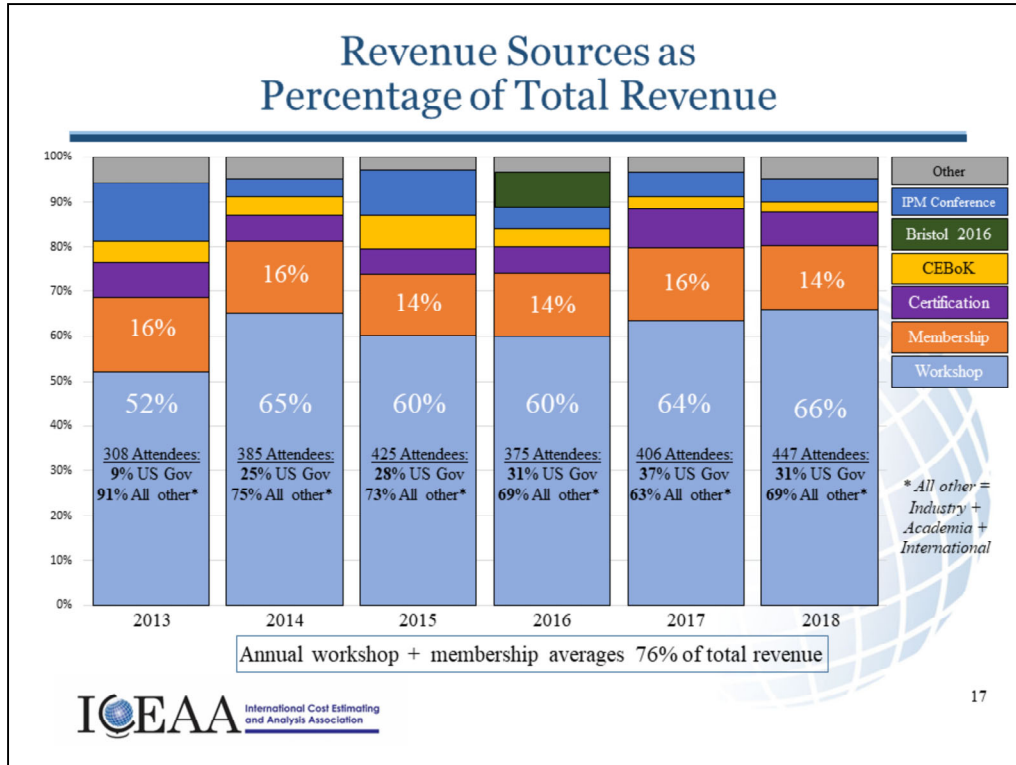
Shifting to the I in ICEAA, as mentioned previously, there are ICEAA members in 20 countries. I've highlighted the fact that Canada has been the fastest growing chapter relative to the entire association over the last couple years. The impetus for this growth was a government wide mandate to better understand and more seriously consider costs in any/all decision making. This mandate plus some forward looking, energetic Canadian government and industry cost leaders precipitated a movement

to professionalizing cost estimating and analysis that continues today. In fact, as many of you know, the ICEAA Canada Chapter is holding its fifth annual workshop in Ottawa next week. The interest in this event has grown significantly over its history, attracting over 150 attendees this year. I'd like to use this opportunity to recognize and congratulate the individuals who have lead the way to this continuing success – Peter Weltman, Erin Barkel, Vrenti Ghergari, Mike Lionais, Alan Mayer and Allan Weldon. Well done lady and gents!

Products/Services (i.e., Value Delivery)

- Annual Professional Development & Training Workshop
- The Cost Estimating Body of Knowledge (CEBoK)
- Certification (PCEA & CCEA)
- International/chapter awards programs
- *ICEAA World Magazine*
- Workshop proceedings (2007-2019)
- Regional/chapter workshops, lunch presentations & social/networking events

Now that I've got you all excited with numbers, let's tap the brakes momentarily for a look at the list of ICEAA's key products and services TODAY. It's possible that you some of you value something you're getting from ICEAA that's not reflected in this list. If so, I'd like to know what that is. For example, I did not include the ICEAA Journal because it has not been published since 2016 and few people have asked what gives.



So, what do these products/services translate to revenue-wise?

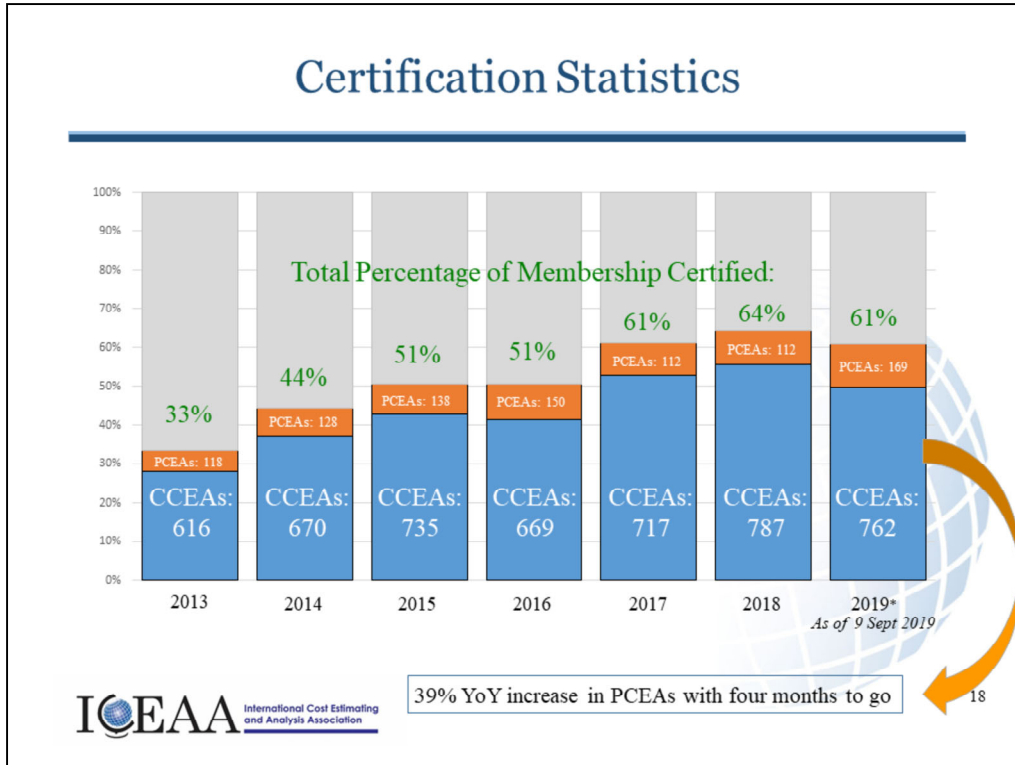
The workshop has accounted for over 60% of total revenue and the combination of the workshop and membership dues represent just over 75% of total revenue. (Note: 2019 revenue data not shown due to fact that year is ~75% complete).

Relative to the workshop, note that we are on upward trend relative to attendance with 8% and 10% YoY growth the last two years.

While I'm on the subject of the workshop, though government attendance dipped on a % basis in 2018, it increased to 39% for the 2019 Tampa workshop, which attracted a total of 483 attendees. It is worth noting that the 30+% figure is double the 15% membership statistic. Of course, unlike memberships, the govt is willing to foot this bill.

Finally, note that certification's share of the total has remained consistent, while CEBoK's share has managed to decline annually since 2015. I don't really have concrete explanation for either of these, though a possible explanation for CEBoK value is the fact that it's relatively easy to get the product without paying. [MEGAN: also, standard decline for old software. The longer it's not updated, the less desirable

it is.]



Speaking of certification, I wanted to quickly share these certification stats with you.

It's encouraging to see the upward until recently flattened trend in the percentage of members who have made the investment to get certified. Given the fact that our vision for the profession is *"To be a vital, respected, indispensable and growing community of practice composed of ICEAA certified professionals recognized as best-in-class"*, I'd like to do what we can to encourage and achieve a higher percentage.

The 2018 to 2019 jump in PCEAs is very exciting because I believe that many (perhaps most) of these successful test takers are early career cost analysts who have actually passed both parts of the exam. What is the impetus for the 39% jump? Perhaps it's simply ambitious 20 somethings recognizing that it makes sense to get this credential as early as possible? Or perhaps it's consulting firms recognizing the increasing trend in government solicitations requiring bidders to propose analysts who have either an ICEAA or government DAWIA certification? If in fact the government is driving the trend, then it's reasonable to argue that consulting firms are best served by having their experienced folks who aren't certified get certified.

Whatever factors may explain the trend (and ICEAA should attempt to understand the root causes), it is an encouraging trend that I'd like perpetuate.

On a final note, conversations I've had with a couple of DoD's senior cost leaders over the last few months indicates that there seems to be an appetite for discussions amongst the government stakeholders re. an ICEAA certification qualifying for DAWIA cost estimating certification equivalency.

2019-2021 Priorities



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As noted in the final slide in the strategic plan section and promised to address later (i.e., now), *“Everything in our strategic plan is important, but everything can’t be most important.*

We must prioritize.”

Focus on Delivering Greater Value

1. Improve CEBoK and associated certification exams (*Christian Smart*)
2. Develop Software CEBoK (aka sCEBoK) and associated certification exam (*Christian Smart*)
3. Stimulate increased level of U.S. Government (USG) cost analysis community engagement (*Rick Collins*)
4. Deliver greater value to public/private sector cost analysis community outside the U.S., aka make the “I” in ICEAA more meaningful (*Dale Shermon*)
5. Stimulate increased level of original equipment manufacturer (OEM) estimating, pricing, and engineering community engagement (*Bob Hunt*)

To that end, I have established five priorities for the board to work.

Although they don't entirely speak for themselves, I am not going to identify the specific the work that each will entail because I'm going to quickly pivot to two slides that discuss progress on each priority.

I trust that the data I provided in the previous section helps you understand why I established four of these five priorities, i.e., 1-3 and 5. The impetus for priority 4 is less obvious, but suffice it to say that Canada is not the only country striving to professionalize cost analysis and this translates to a demand for ICEAA goodness, starting with a body of knowledge that speaks to them.

The names of the accountable board member is shown in parentheses.

Progress to Date (1 July to 12 Sept)

1. Improve CEBoK & associated certification exams

- Cobec Consulting completes initial round of CEBoK wiki content improvement
 - Edited wiki to enable publishing, translation (e.g., to French), sale & distribution
 - BUT, heavy lifting remains to modify (vice edit) existing & create new wiki content
- Evaluation of potential new/modified wiki content underway, e.g.,
 - New* -- data science tools/techniques (incl. but not limited to machine learning)
 - Modified – software cost estimating module is outdated & requires major overhaul
- Evaluation of online platforms to deliver CEBoK, training & certification exam underway

2. Develop Software CEBoK (aka sCEBoK) & associated certification exam

- An important, strategic partnership with Netherlands Software Metrics User Association (Nesma)
- Planning underway for independent review, revision & integration of 16 module BoK
- Planning underway for creation of certification exam (1st offering in May 2020)

* Priorities 4 & 5 (deliver greater value to international & OEM communities) will generate new CEBoK requirements (see next slide)



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This and the next slide address progress since 1 July, which is when I and the new board officially took the reins.

Pri 1 – With the help of Cobec, who recently completed an effort competitively awarded in early 2019, we have started the hard work of improving CEBoK content. For those of you who were not aware, the last board decided that it was time (actually well beyond time) to deliver CEBoK via a more practical, modern medium, specifically a wiki format that provides greater flexibility, functionality, etc. than PPT slides. In addition to evaluating the variety of content improvement required, we are studying the best way to deliver & sell CEBoK. The same is true for the certification exams. On a final note, as indicated by the asterisk and mentioned on the next slide, priorities 4 & 5 are going to create their share of CEBoK requirements too.

Pri 2 – Close to four years ago, as a result of Brian Glauser's (then ICEAA President) vision and willingness to lean forward and what's been a very healthy collaboration with Nesma, a working group was formed to develop a body of knowledge to address the cost and schedule analysis needs of commercial IT firms that develop software. In large part due to the vision and diligence of two members of Nesma (Eric van der Vliet and Harold van Herrigen) and the volunteerism of a

variety of software cost/sizing SMEs, today we have a 16 module BoK that is about to undergo independent review and revision in preparation for creating a certification exam and making both the BoK and exam available for paying customers next May. I am confident that this product is going to open new doors for ICEAA and, in partnership with Nesma, we can create/grow a profession of commercial IT firm software cost analysts who are certified. It is my understanding that there are ~20 individuals abroad who are eagerly awaiting the opportunity to acquire this new certification.

In closing, I should that there is an ICEAA/Nesma MOU in place that lays the important ground work for formalizing the partnership by establishing an entity known as ICEAA Software

'Progress' to Date (1 July to 12 Sept)

3. Stimulate increased level of U.S. Government (USG) cost analysis community engagement
 - Planning underway for gov't-only day (Monday) at 2020 ICEAA Workshop in San Antonio
 - 2020 facility will accommodate up to 150 gov't attendees & future capacity should be greater
4. Deliver greater value to public/private sector cost analysis community outside the U.S. (aka make the "I" in ICEAA more meaningful)
 - Evaluated four options for creating an international version of CEBoK & determined "separate national sections" option is best way forward
 - Developed/issued survey to solicit U.K. & European member feedback
5. Stimulate increased level of original equipment manufacturer (OEM) estimating, pricing, and engineering community engagement
 - Initiated preliminary discussions re. how to make CEBoK more relevant to OEM cost/affordability analysts
 - Secured meeting with Carol Hibbard, VP of Finance and CFO of Boeing Defense, Space & Security (BDS) to discuss opportunities for ICEAA to deliver greater value (16 October)

Pri 3 – Based on conversations that I've had with a cross-section of cost leaders in the defense, intelligence and civil sectors, there is support for an all-government today. There is much to be worked out with these leaders relative to the 'right' agenda, but I am confident that this experiment will pay dividends for all – government, industry (since these leaders will participate in panel discussions open to all attendees on Tues-Thurs) and ICEAA.. The only down side I can see at this point is the fact that we are having to negotiate after the fact for meeting space and there are some constraints on that front, i.e., the largest general session space holds 150.

Pri 4 – If you haven't read Dale Shermon's article in the latest edition of ICEAA World on the options for a truly international version, you should. We have selected the best approach to accomplishing this and will include this work in our plan for CEBoK content improvements. Also relative to this priority, we are awaiting responses to a survey we distributed to UK and European members.

Pri 5 – In addition to understanding the day-to-day work and needs of analysts at OEMs and how it differs from analysts in or supporting the government, I and other board members who work for OEMs are going to engage leaders directly. I am particularly interested in learning how Carol Hibbard's experience as a cost has helped her in each of her progressive assignments, up to and including her current

role. I believe that there will be an important message in the story that open some eyes about what you can do and where you can go with a solid grounding in cost. Btw, she is not the only cost analyst who managed to parlay his/her cost experience into something more significant.

Call to Action

- **Reality 1** – ICEAA’s ability to achieve these priorities will depend on the quantity/quality of help it gets from board members and other ICEAA members who are willing **and** able to help
- **Reality 2** – ICEAA’s ability to achieve these priorities requires the following of all volunteers, board members included
 - Laser focus (thoughtfully identify what you’re going to do & don’t stray from that)
 - Accountability (do *what* you say you’re gonna do, *when* you say you’re gonna do it)
 - Sense of urgency (do what you say you’re gonna faster than you say you’re gonna do it)

Let me preface today’s final topic with two comments that are necessary and certainly not earthshattering.

First, talk is cheap. I’m excited about the path forward, but I realize that if I don’t leave my mark in the form of positive change/progress, then I haven’t performed the job I was elected to do.

Second, good intentions without action leading to outcomes is no more than good intentions. They may make a well-intentioned individual feel good about him/herself (i.e., I volunteered), but if they don’t translate to rolling up the sleeves, investing the time and getting something accomplished, then why bother?

I have chosen to convey my call to action in the form of four simply worded and hopefully easily understandable realities.

Call to Action

- **Reality 3** – No one ever said volunteering is easy (*we all have day jobs & lives*)
- **Reality 4** – Volunteering for ICEAA will be rewarding & hopefully fun
 - Satisfaction of contributing to products and other ICEAA offerings that will benefit the community and association
 - Recognition for your contributions that advances your professional reputation, furthers your career & improves the image of your organization
 - Growth of your professional network
 - Recertification points
 - Potential compensation in the form of a stipend and/or ICEAA currency (e.g., free annual membership or workshop registration)
 - Kindle your interest in contributing more & differently in the future (e.g., elected & non-elected positions)

Reality 4 – Refer back to the strategic planning collaboration with Dan and Eric that proved to be great for all of us (grew our network, real learning experience for them since they'd never done strat planning, learning experience for me cause I was exposed to how early-mid career analysts thought)

I appreciate your attention today and sincerely hope that these thoughts resonate. I welcome your comments and observations. I encourage you to think about the particular objectives related to our technical excellence and collaboration goal and how you might want to contribute to one of these and, in doing so, help us achieve one or more of the five priorities.