



AESS Strategic Planning Meeting University of Pisa, Pisa, Italy and Virtual via Zoom 14-15 February 2022

Attendees: Fabiola Colone, Mark Davis, Alfonso Farina, Francesca Filippini, Fulvio Gini, Sabrina Greco, Braham

Himed, Peter Willett

Virtual Attendees: Michael Braasch, Alexander Charlish, Walter Downing, Lance Kaplan, Laila Moreira, Mike Noble,

Bob Rassa

Staff: Amanda Osborn

Welcome and President's Message (Davis)

Mark welcomed everyone to the meeting. He reviewed the meeting structure and the 2022 AESS Board of Governors members. He introduced the newest BoG appointee, Puneet Mishra from Indian Space Organization, and Undergraduate Student rep, Mehak Jetly from Syracuse University.

For this meeting, Mark requested each Vice President to prepare a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for their respective areas.

The 2022 strategy includes a plan for a post-COVID 19 world, quantifiable metrics over the next three years, and cross-committee collaboration opportunities.

The AESS milestones over the last six years included: significant increase in diversity; increase in conference offerings and surpluses; improvements in publications; strengthening educational offerings with the virtual DL program and short courses; increased membership in Region 9 and 10; and added the Michael Wicks Student Travel grant.

The focus areas of the 2022 IEEE Technical Activities Strategy are on publications, conferences, standards, and future technologies.

Mark highlighted the recent trends of AESS membership including converging technologies that are crossing multiple society's fields of interest; concerns on the Fellows process with respect to industry candidates and diversity; reducing student fees; and decreased student membership and retention rates.

There was a discussion held about the strategy of the funding for 2-3 years initiatives and how to utilize the 3% rule vs. the 50% rule vs. budget. AESS has realized a heavy surplus despite the pandemic and the VPs should be thinking of new initiatives. Also discussed included putting seed money for workshops in disadvantages areas; the impact of new technologies on conferences; and generate a histogram of cross-OU membership of AESS members to identify and develop collaboration opportunities.

Action Item: Amanda Osborn to request cross-society membership data from IEEE.

Strategy (Sabrina)

The 2022 strategy focuses on AESS's role with its members and technical community and how AESS can better serve its members. Sabrina introduced MID: More Inclusive and Diverse. The strategy is a work in progress. Sabrina and Mark met with each of the incoming and outgoing VPs prior to the SPM and focused on their SWOT analyses including cross-committee initiatives, virtual meeting challenges, how to get more members involved, financial and environmental issues, and determining what types of information and support do the VPs need.

The goals of the SPM are to identify one, short-term goal for each VP; identify long-term goals; brainstorm pro and cons; formulate strategy to implement goals; and identify measures of success.

Sabrina recommended looking at what other OUs and non-IEEE entities planning for the future; the Integrated Sensing and Communications Initiative (ComSoc and SPS); and the Synthetic Aperture (Standard by SPS). It was discussed on ways to develop strategies to become more a more proactive society and empowering the panels and AESS members to take action and be the lead on initiatives. Walt mentioned IEEE has a Future Directions Committee charged with this action and create groups around these emerging technologies.

Conferences (Himed)

Braham thanked Michael Braasch for the assistance with the transition as VP Conferences. He noted that there is lack of clear guidance of what the role of VP Conferences is. Braham reviewed the mission of the Conferences Committee.

- S: Flagship conferences are high-quality, well attended, and provide excellent surpluses.
- W: Relationship between conference organizing committees and chair and AESS; the processes for FCS and TCS are not clearly defined; conference guidelines are not accessible and are confusing; and conference reports not generated on time.
- **O:** Steady-state hybrid conferences.
- **T:** High competition for attendees' resources.

There was a discussion held on the pros and cons of virtual and hybrid conferences, each with significant challenges that impact in-person attendance. There needs to be a balance between the total number of papers and the quality of the conferences.

The TCS are not following guidelines. There needs to be a standard reporting process. Recommended that FCS are required to report.

Upcoming projects include strengthening student participation and reviving the "Junior Conference Concept".

There are collaboration opportunities with the Technical Panels to identify common areas with other societies and work with conference chairs to identify technical tracks of mutual interest. Another opportunity is to work with the Education Committee to utilize the student travel grants and scholarship programs to increase participation of students and YPs at conferences.

Action Item: Mark Davis to send Braham Himed the most recent version of the Conference Guidelines.

Action Item: Braham Himed to update the best practices for the conferences.

Action Item: Braham Himed to create a template for conference reporting.

Action Item: Braham Himed to develop a motion for the Spring BoG meeting in March in regard to seed funding workshops and conferences for members in underdeveloped regions.

Action Item: Braham Himed to reach out to Puneet Mishra to ask him to be on the Conferences Committee.

Finance (Willett)

Peter thanked Bob Rassa and Michael Cardinale with their assistance with the transition to VP finance.

- **S:** Continuously-generated surplus primarily from conferences; AESS reacted well to COVID-19 challenges; the reserves are over \$6.5M; and the new OJSE 20% sponsorship.
- W: Lack of new initiatives; author community has not embraced Open Access paradigm.
- O: Expand the number student scholarships; engage Councils (SC, SYSC, NTC) AESS is a member of; partner with emerging publications; IEEE Access section on AESS topics; use serves in IEEE Foundation Account.
- **T:** COVID-19; hybrid conferences are high risk and hard predict for hotel and F&B attrition; Open Access will impact IEL revenue; China's policy on domestic publications.

Peter reviewed the budgets and surpluses from 2018-2020. In 2021, AESS will see revenues from publications and post-conference distributions and investment returns likely to be substantial. Peter plans to become more familiar with NextGen.

Action Item: Bob Rassa to send Peter Willett and Mark Davis the 2022 budget.

IEEE has moved to a web-based NextGen system. He reviewed the 3% and 50% rules and it was noted AESS hasn't really had to use this because we can afford expense requests without going into reserves. Other notable items include MAES expense reduction with the transition to ScholarOne, TAES budget increased due to an extra 500 pages; conference income was reduced; the impact on administrative travel was small; membership is stable; IEEE overhead now in technical operations vs. previously included in publications budget.

There was a discussion held about post-COVID effects and OA on conferences. There are mixed opinions on hybrid conferences and engagement with virtual/hybrid conferences. Hybrid conferences can be very expensive mostly due to increase AV and staffing requirements.

Peter reviewed the AESS-sponsored publications and revenue shares. Extra publications income comes from overlength page charges, OA fees, and voluntary page changes for TAES.

Discussed what happens if Plan S and OA gain momentum.

Discussion held on how to better use the reserves to help the members i.e. "For those in the economically disadvantaged regions".

Member Services (Laila)

Laila thanks Fabiola for her help with the transition to VP Member Services (MS).

Laila reviewed the MS Committee and IEEE membership statistics from 2016-2021. There was a decrease in membership in 2022 specifically with students.

The 2022 MS goals include growing membership by 2%; transition student members to full membership; increase member diversity; stimulate chapter initiatives; the 50th Anniversary planning; and increase member participation in AESS activities.

Laila reviewed each objectives timeline and SWOT analysis for 2022 and overview of AESS offerings.

Action Item: Laila Moreira to contact AESS-sponsored conference organizers to advertise the YP travel grant.

There was a discussion held about the Michael Wicks Travel grant and its requirements. Alex and Laila to draft a proposal for guidelines for the grant.

Mick Wicks grant only asks for statement and it was challenging to make a decision with only the statement. The committee to revise and refine this process for 2023.

Industry Relations (Noble)

The 2022 IR Committee goals include grow industry sponsorship of AESS; serving industry members by growing AESS' relevance to industry engineers; and strengthen ties to corporate IEEE by expanding engagement to leverage corporate initiatives and resources.

- **S:** Industry support for IEEE subscriptions; high-tech company participation in AESS domains; tech focus is aligned with industry interests, etc.
- **W:** Low industry senior support; employee participation not encourages; low-government participation outside labs; AESS not a regular resource for practitioners.
- **O:** Industry-focused products; collaborations with other societies; create hybrid events with talks and courses for companies; facilitated mentoring seniors with YPs and students; publish information relevant to industry seniors.
- T: Open-source publications; hesitant to share information; the perception of IEEE as an academic
 institution.

Action Item: Mike Noble to meet with Braham Himed and Lance Kaplan to determine how to better integrate Industry Relations with AESS-sponsored conferences and publications.

The IR Committee has identified several areas of opportunity to collaborate with other areas such as awards, conferences, publications, and member services. The Industrial Innovation Award deadline was extended to March 31. A targeted email was sent to industry POCs to leverage the committee members networks. There is an opportunity for collaboration with IR and Awards.

IR is hosting panels at Aerospace Conference and Radar Conference. There is an opportunity to expand the panel activities and potentially publish interviews in MAES. The committee has also discussed chapter and society-level events that would target senior industry and YP members.

IEEE is in the process of building the IEEE Industry Relations Platform (IRP) a CRM tool for IEEE OUs to increase engagement with industry. Mike is also requesting additional information on the Industry Ambassador program.

The committee's next steps are developing a survey to target industry professionals; add resources to the IR webpage; create webinar for chapters to discuss industry relations; and finalize 2022 objectives.

Action Item: Mike Noble to develop a priority list and short-term goals of the IR objectives by Spring BoG meeting.

Action Item: Mike Noble to work with Amanda Osborn to create a survey to send to industry professionals.

Strategy Recap (Sabrina)

Sabrina recapped today's discussion areas and how they fit in with the strategy.

The meeting was recessed until Tuesday, 15 February.

Day 2: Tuesday, 15 February 2022

The 50th Anniversary discussion was moved to be after the Italy Chapter updated. The goal for day two is to summarize the strategy in a report for the BoG meeting in March.

Italy Chapter Update (Farina)

Alfonso provided an overview of the chapter's structure, finance, and activities. The chapter has grown 39% since 2017. They manage a mailing list with over 180 members and send monthly email updates. Their focus is nurturing the human relationships among its members. The chapter provides financial and organizational support at Metrology for Aerospace Conference and 2022 Radar Spring meeting. They are planning to apply to the IEEE AESS Chapter of the Year Award.

Action Item: Alfonso Farina to send the data of the percentage of growth from industry from academia to Mark Davis and Mike Noble.

There was a discussion about the current process for chapters to request funding. There are two forms on the website to request the annual \$500 and additional funding for chapter activities.

Action Item: Laila Moreira to send information about chapter funding to Ms. Mehak Jetly, UG Rep and Syracuse University Student Branch Chair.

50th Anniversary Celebration (Moreira/Farina)

Alfonso provided a summary of the AESS history over the last 50 years. Laila summarized the proposed activities, timeframes, leads, and costs.

50th Anniversary activities in progress include a celebration event, special issue in MAES, promotion giveaways, promotional video, logo contest, corporate sponsorships, and quiz challenge.

Possible locations for the celebration event included the February 2023 TAB meeting in New York City; 2023 Rising Stars Conference in Las Vegas; and an AESS sponsored conference such as Radar in San Antonio or International Radar Conference.

A budget needs to be developed for each activity.

Action Item: Laila to identify guest editors create call for papers.

Action Item: Peter Willett to send Daniel O'Hagan email to introduce the proposed special issue.

Education (Charlish)

The mission of education is to facilitate quality in-person events while expanding online educational resources. The main activities are online educational resources, DL program, events, and awards.

- S: Virtual DL program and educational events organized by the technical panels.
- W: RC and ILN usages low.
- **O:** Capitalize on experienced gained through online and educational events.
- T: Deterioration of in-person events and changes in demands of educational offerings.

Action Item: Amanda Osborn to request 2021 usage stats from the ILN.

Action Item: Amanda Osborn to add ILN to the homepage of the AESS website.

Discussions were held on how to improve educational offerings and opportunities. There is an opportunity to make short courses and tutorials available to industry companies. Other ideas included one educational video of the month and promote on the website and social media; creating a YouTube channel; partnering with Try Engineering for targeting students in STEM; and new Summer School events.

Action Item: Mike Noble and Alex Chalrish to connect about offering lectures to Industry companies.

The 2020 and 2021 virtual DL program was highly successful. Discussed requesting each DL to produce at least one video a year moving forward.

Awards (Gini)

Fulvio provided an updated on the 2022 awards statuses. The Robert Hill received 9 nominations in 2021. Lorenzo made improvements to the selection process. The near-term strategy is to maintain the high-number of entries.

The Michael Wickets Student Travel Grant was award for the first time in 2022 at RadarConf. There were 17 candidates from the US and Europe, but it was noted none were received from developing countries. All student papers were automatically considered. Three were selected and will receive hotel accommodation, conference registration, and access to tutorials and other programs. The goal for 2023 is to have a faster selection process and solicit papers from developing regions. Student activities chairs should be responsible for this award

We are looking to expand the scholarships and investigate examples of scholarships elsewhere.

Publications (Kaplan)

Lance provided a SWOT analysis, activities and opportunities of AESS sponsored publications.

- **S:** MAES and TAES impact factors have grown over the last five years; TAES sub to pub improved from 83.5 to 36.8 avg weeks.
- W: Diversity of EB; identifying emerging areas of interest, particularly with industry.
- O: Collaboration with IR, Technical Operations, conferences, and special issues in new OJSE.
- **T:** Publications seem to have been COVID agnostic unlike operations that normal require face to face interactions.

There was a discussion held about Open Access. It is more of a financial threat than a publications threat. Lance noted AESS should not switch too early to OA.

There are currently no special publications projects. OJSE is in the process of being launched with SYSC and SMC. TAB is reviewing and voting on T-RS. Potential projects including special initiatives to promote emerging topics; increase diversity on EB; and coordinating efforts with conferences, publications, and IR.

Technical Operations (Braasch)

Michael thanked Marina and George for their work in growing and establishing Tech Ops. There are six technical panels.

- **S:** Most panels tied to an important conference and contributed to state-of-the-art articles to MAES and TAS; GAP responsible for more than a dozen standards.
- W: No panel devoted to unmanned/autonomous systems.
- O: Supertopic "Autonomy for Sustainability" overseen by the Vision & Perspectives Committee...
- T: V&P Committee members are extremely busy and limited time to devote to the Supertopic

The immediate plan for V&P and the Supertopic is to develop a detailed overview and draft an article for SYSTEMS. They've also been request to organize special sessions at conference, regional workshops, and lectures at chapter meetings. They may need funds depending upon specific initiatives such as seed funds for regional workshops.

There are opportunities to collaborate with conferences, IR, and other OUs working in the area of autonomy. Peter recommended to get in touch with Fabrice Labeau and to encourage the Technical Panels to write a news and information item for MAES.

The DASC 2022 theme is Roadmap for Increasingly Autonomous Systems in Air Transportation.

Integrated Sensing and Communications (Greco)

Sabrina reviewed the Integrated Sensing and Communications (ISAC) initiative and DFRC Technologies. Radar Spectrum being released for commercial communication services. Other OUs in this area include IEEE ComSoc Integrated Sensing and Communication Emerging Technology Initiative (ISAC-ETI) and IEEE SPS Integrated Sensing and Communication Technical Working Group (ISAC-TWG).

The next steps are to present to the BoG in March; determine which areas are challenges and capabilities that AESS can bring to bear and get ready for a marketing and collaboration by the EOY or the Fall BoG meeting; and send information to all of the members to start to inform them of the initiative and solicit interest.

Parking Lot (All)

The education motion was revisited, discussed, and voted on.

MOTION: The Education Committee moved to approve a Young Professionals reception at IEEE Radar Conference 2022 for \$5,000. Motion passed.

Strategy Wrap-Up (Greco)

The long-term goals are to be more inclusive and diverse (MID strategy); to increase AESS impact particular in regions and areas of interest where members are underrepresented; be in line with "Advancing Technology for Humanity"; and be the drivers of change not the runner ups.

AESS is financial solvent and we have the funds to judicially support new initiatives.

The short-term goals are to facilitate cross-committee and cross-disciplinary initiatives; focus on broad topics of interest and be leaders of these initiatives; maintain relationships between BoG and local AESS leaders in Regions 9 and 10; and involve the next generation of members and tailor activities and events to their needs. We should leverage the 50th Anniversary Celebration to showcase history but also present and future activities. Lastly, we should learn from the past and pandemic to integrate and augment activities moving forward.

The VPs should implement these strategies by focusing on 1-2 initiatives per year; define a precision roadmap and who is responsible for each step; define measures of success; identify threats/risks; launch pilot initiatives; and keep an eye on what other entities are doing for the future.

The next Board of Governors meeting will be at Radar Conference on March 25-26, 2022 in New York, NY, USA.

The meeting was adjourned at 4:15 PM CET.