SOP UPDATES - 2020

All abstracts are scored by subject matter experts using the below criteria. Abstracts are given a numerical score. A range of experts provide scores, with each abstract receiving between 5 and 25 separate reviewer scores, depending on the subject matter and relevance to the experts providing the scores. All reviewers are given the option to "opt out" based on conflicts of interest to insure unbiased scores. All scores are then normalized to equate scores from different reviewers. This is done in excel using a normalization formula. Then the normalized scores are shared with the committee who uses the highest rated abstracts to select sessions based on related topics that the audience needs and would be interested to learn.

WEF SCORING CRITERIA

All abstracts and session proposals will be judged with the following criteria. These criteria are the minimum criteria, and all abstracts meeting these will be considered for the program. The selection process is highly competitive, and submitters should take time to be sure all submissions meet or exceed the following criteria.

APPLICABILITY

The abstract should present ideas, concepts, or lessons learned that are transferable and usable at other facilities and situations.

DEMONSTRATED RESULTS/CONCLUSIONS

The topic presented in the abstract should be mature and proven, including lessons learned. Depending on the type of abstract, this could measure the extent that plans are developed or stages/projects are completed.

CONSEQUENCES

The abstract should address the consequences of the issue/project presented. The consequences, both intended and unintended, could include environmental, economic, and social impacts. Both positive and negative results are encouraged.

RELEVANCE

The topic presented in the abstract should appeal to the WEFTEC audience, i.e., presenting breakthrough technologies, new concepts, and novel applications of concepts, original ideas, new twists, hot topics, or application of fundamental techniques to today's problems.

Symposium Focus

SAMPLE

Name of Symposium: Research and Innovation Symposium

3. Service Group Analysis and Opportunities

Types of people that are represented by your symposium and the types of information or topics that your symposium covers.

The Research and Innovation Symposium (RIS) is comprised of academics, consultants, utility and industry professionals. These members are generally are technically focused and have primary job titles including professor, lecturer, design engineer, lab managers, research scientist, research manager, etc. The RIS is focused on showcasing innovative approaches and technologies within the water sector, with a special emphasis on identifying how innovations can be applied into practice.

3.1 Service Group Needs:

- Developing six to eight technical sessions in conjunction with collaborating symposia to showcase research and innovation in cutting edge topic areas.
- Providing researchers with outlet for showcasing leading edge research at WEFTEC

3.2 Target Profile of Service Group:

RIS focuses on reaching staff within the following demographics:

- Utility (operations, engineering and management staff)
- Consulting engineers (engineering and management staff)
- Academics
- Industry (engineering, management staff)
- Regulators
- Manufacturers/technology providers
- Research foundations (program managers, researchers)

Within this context, RIS also serves the following groups:

- Association of Environmental Engineer and Science Professors (AEESP)
- American Academy of Environmental Engineers and Scientists (AAEES)

3.3 Underserved Constituents:

RIS has historically served technical staff from utility, consulting and industry entities well. Currently RIS struggles to engage regulators and management staff across the board. Recently, RIS has struggled to maintain a high level of engagement of academics within the symposia as well as part of the program. RIS has also not had a strong history of collaborating with other WEF program committee symposia beyond Municipal Resource Recovery Design (MRRD) and Residual and Biosolids (RB). RIS has also not consistently engaged the following organizations/groups:

- WEFTEC Workshop committee
- WEF specialty conference sub-groups (e.g., nutrients, residuals and biosolids)

- WEF member associations
- IWA specialty groups e.g., microbial ecology and water engineering (MEWE), leading edge technology, resource recovery

3.4 Member Recruitment:

RIS approach to recruitment has been to solicit invitations from existing members as well as engaged researchers who consistently attend WEFTEC and other specialty conferences. Future efforts for recruitment and retention should be focused as follows:

- Defining multiple levels of participation:
 - o Review only persons who can only review abstracts
 - Review and participation persons who can review abstracts, attend mid-year and moderate
- Identifying embedded members from other symposia: RIS should ask Chair/Co-chairs from
 other symposia to identify a representative from their committee who will serve as an
 embedded member of the RIS committee. These new members will serve as review and
 participation level members.
- Improving communication between the Research committee and symposia Currently, there is a disconnect between leadership of the research committee and the symposia. Conversations should be conducted to understand how the symposia can leverage the committee for improved performance.
- Identifying new members from underserved organizations who can commit to serving at the levels defined above.

4. Collaboration Analysis

4.1 Internal Partners:

RIS internal partners include:

- All other program committee symposia RIS should be actively collaborating with all symposia in the development of program content for WEFTEC.
- RIS should start conversations with WEF specialty conference coordinators to assist with identifying program content.
- MARC RIS should coordinate with manufacturer reps to help with identifying novel ways for delivering content associated with applied research.

4.2 External Partners:

RIS can benefit from consistently engaging the following organizations/groups:

- IWA specialty groups e.g., microbial ecology and water engineering (MEWE), leading edge technology, resource recovery
- Research foundations from USA and international countries (e.g., National Science Foundation (NSF), National Water Research Institute, Singapore Public Utilities Board, Water Research Commission of South Africa, STOWA (Foundation for Applied Water Research)

Program Committee Plan WEFTEC 2018

Committee Summary

Key Leadership

- Chair: Sarah Reeves (incoming Diego Rosso)
- Vice Chair: Charles Bott (incoming Tom Sandy)
- Staff Liaison: Susan Merther

Mission and Overall Charge

The mission of the Program Committee is to develop and deliver educational and networking opportunities for WEFTEC attendees that reaches all levels of interest, from basics to innovations, in the water industry. The committee is charged with aligning the WEFTEC program with WEF's strategic plan and consistently providing high quality, relevant, and engaging content.

Service Group Analysis

Service Group Needs

The Program Committee supports the needs of WEF's members and non-members at WEFTEC by:

- Capturing a wide variety of lesser known topics that have the potential to become mainstream WEFTEC topics in coming years.
- Providing basics sessions across the breadth of topical areas at WEFTEC.
- Developing sessions that advance innovation and make space for exploration of new and emerging ideas.
- Coordinating amongst Program Symposia to develop sessions that are of highest quality and will
 engage the audience.
- Laying out a program that minimizes overlaps among audiences.
- Delivering content in multiple ways to best engage the audience (mobile session, knowledge development forum, panel discussion, workshop, interactive knowledge exchange, podium presentation, etc).

Target Profile of Service Group

The Program Committee serves:

- Water, Wastewater, and Stormwater Utilities (operations, engineering, environmental, and management staff)
- Consulting Engineers (engineering and management staff)
- Academics
- Industry (operations, environmental, engineering, and management staff)
- Agriculture
- Regulators (federal, state, and local)
- Manufacturers/Technology Providers
- Research Foundations (program managers, researchers)

With the development and delivery of the technical program for WEFTEC, our service group can span as wide as the entire water sector, as our product is used to attract prospective WEFTEC attendees. We serve full-conference attendees with our on-site content. We also share content with WEF partners and use it in other WEF products.

Underserved Constituents (by Symposium)

Through our 2018 Program Committee strategic planning, we identified developing and fostering partnerships as a high priority focus area for the entire Program Committee over the next two years, including Member Associations, other WEF events, and other strategic WEF partners.

Collection Systems:

- Mas
- Collection System Technical Committee
- NASSCO
- AWWA
- NASTT
- ASCE
- CIWEM

Disinfection and Public Health:

• Not currently aware of any underserved constituents.

Facility Operations:

- Operators
- Laboratory Professionals
- Maintenance Professionals
- Member Associations In the area of operator training related sessions, we should have better
 dialog with MAs to learn from them, to transfer knowledge, and to ensure gaps are covered.
 Because operator training is handled on a state level we should have more interaction on this
 topic with the MAs.

Future and Global Issues

- International Attendees The Program Committee has always sought to bring in case studies, research, and innovative technologies that are being utilized globally outside of north America. These attendees have often experienced natural disasters, water scarcity issues, or topics related to "One Water." They want to share "lessons learned" in their countries or to learn from North American experiences (eg. California droughts and fires, Texas droughts, Hurricane Sandy)
- Industry Disruptors/Innovators The Program Committee needs to engage these types of people to bring fresh content and cutting-edge ideas. These constituents may come from within the Water Sector, but we should be looking to other industries (IT, Industrial, Agriculture, Energy, etc) for innovative ideas that have the potential to change the Water Industry.

IKE

- Academia
- Regulatory outside of Public Outreach

Industrial

• Industrial Organizations Specific to Each Major Industrial Sector (such as EPRI for the power industry or TAPPI for the pulp and paper industry).

Municipal

- Academics
- Manufacturers and Reps Committee

Research and Innovation

- Regulators
- Management Staff
- Academics
- WEFTEC Workshop committee
- WEF specialty conference sub-groups (e.g., nutrients, residuals and biosolids)
- WEF member associations
- IWA specialty groups e.g., microbial ecology and water engineering (MEWE), leading edge technology, resource recovery

Residuals and Biosolids

- Regulatory Agencies and Regulatory Officials (State and Federal representatives)
- Students and Young Professionals
- Energy and Power Industry Professionals
- Product Reuse Commodity Brokers and Private Equity Entities
- Organic Solid Waste Management Industry Professionals

Stormwater

- Municipal Public Works Stormwater Professionals likely attend APWA conferences rather than WEFTEC. Although, locally, these people are well represented in statewide conferences focused on stormwater.
- Industrial Environmental Managers –probably attend industry group (scrap recycling, food groups, petro-chemical, etc.) conferences for their environmental information.
- Regulatory Groups ORSANCO, State DEPs
- Universities/Research Groups-Target specific universities of interest
- Federal (FEMA, FHWA, USGS, USACE)

Utility Management

- Academia
- Young Professionals

Water Reuse

- WateReuse Association (WRA) need to collaborate directly with the WRA regarding submission of technical presentations that are given at both annual conferences (WateReuse and WEFTEC).
- Operations
- Regulatory
- Food Industry
- Power Industry

Watershed Resources and Sustainability

- Regulators
- NGOs

Member Recruitment

Symposia have their own procedures and strategies for recruiting and retaining members. As a baseline, all Symposia are to liaise with their respective technical committees to recruit members and often recruit from the technical presenters at WEFTEC and WEF specialty conferences. They strive to maintain a diverse and balanced membership that represents the broader WEFTEC audience.

In order to efficiently and effectively complete our work, we do limit the number of members in each symposium, and that number varies based on the workload for each symposium.

To continue to effectively fill our membership, we will do the following:

- As we work to engage with our key partners (many are part of the underserved audience), we will also recruit Program members.
- The most difficult members to recruit are federal, state, and local agencies, as they are often unable to attend midyear or WEFTEC, which is key to development of the program. In order to get their perspective, we must engage them in different ways.
- Academic engagement is a key area of focus for WEF, and we will continue to welcome and recruit academic members as we evolve our Research and Innovation Symposium.
- Symposia are considering ways to break up their work into smaller, more manageable efforts, as we recognize that the commitment of a Program Committee member is significant.

Collaboration Analysis

Per the Program Committee's Strategic Plan, we will be identifying and developing more partnerships, which will in turn enhance our collaboration both internally and externally. As we have yet to prioritize our partnerships, we have provided a summary of our current partnerships and collaboration with these partners below.

Internal Partners

- Manufacturers and Reps Committee Have a representative on the Program Steering Committee, are joint members on the WEFTEC Advisory Committee, engage in exploring methods that encourage interaction between program attendees and exhibitors.
- CLC Attend and actively participate in CLC meetings, engage with our CLC CoP director as needed, provide information on Program Committee procedures and activities.
- Board of Trustees Provide detailed update on strategic Program priorities, engage with the Board on strategic direction/WEFTEC of the Future.

External Partners

- WRF Have a representative on the Program Steering Committee, engage in review and development of the Workshop program
- Various Many symposia have external partners associated with their topic area or focus.

Industry Risks and Risk Mitigation

Volunteer engagement

Risk: The work of the Program Committee greatly depends on significant input from volunteers. As people are being asked to do more in their day-to-day work they are challenged to give as much volunteer time. As a result, the rigorous processes put in place to ensure quality and diversity are at risk.

Mitigation: The Program implements a robust process to ensure that all members are engaged throughout the year, and to replace them if they are not. The additional look each year at our larger strategy and focus as a Program allows us to examine the workings of the committee from a macro level and get rid of efforts that are not adding value or are taking too much time.

• Perceived or Actual Bias

Risk: The direction of the program could be influenced by an individual with an agenda, or could be perceived as doing so.

Mitigation: The Program has a rigorous review process that uses multiple views on each abstract, proposal, and session to minimize the impact of bias. Outlines of processes and criteria used to select abstracts are available online. Continual, purposeful communication of the committee's processes is something we have identified as a way to further minimize this risk.

Not Keeping Up With Evolving Demographics

Risk: The manner in which younger entrants to the industry can and want to be engaged differs from the demographic that we have designed the Program and all of WEFTEC around. The risk is that our current modes of information exchange/education in the Program and the forums we provide for networking will not serve this new audience and they will not participate in WEFTEC. **Mitigation**: The Program is pushing its bounds to provide programming in many different formats to better engage attendees from a diverse demographic. We are trying to maximize creative ways to create a conversation that continues beyond the week of WEFTEC (to other specialty conferences and MA conferences).

One Water

Risk: As a result of climate change and limited resources, the water industry is being pushed toward a One Water concept that does not recognize the boundaries among water in all its forms, but rather looks at it as a resource to be brought to quality standards that fit the purpose of its use. WEFTEC still silos many of the types and uses of water (e.g., stormwater, industrial water, wastewater) and has been very diligent about staying away from drinking water. We are not showing leadership in this pivotal time and on this pivotal topic in our industry. **Mitigation**: The Program has identified One Water as one of three themes for WEFTEC 2019 and will likely continue this theme beyond the 2019 conference. We have asked the Board to consider their stance on including drinking water and embracing and leading the industry in a One Water paradigm.

• Limited Resources/Doing More With Less

Risk: There is ever-increasing pressures on companies and utilities to do more with less and there seems to be less interest in support of travel or volunteer work. The risk is not new – it has already resulted in fewer regulator/agency volunteers and attendees. It could possibly threaten the idea of a conference that we travel to.

Mitigation: The Program has challenged itself to improve the attendee experience without incurring significant expense through maximizing creativity. Technology is an important piece of the attendee experience but it comes at a significant cost. By being creative with how we present information and use the tools that are already in our hands (smartphones) we can maximize the use of our resources and the experience of our attendees.

Programs and Services

Committee Activities and Products

The overall product of the Program Committee is technical program for WEFTEC. Specifically, the Program Committee's activities include the following:

- Call for content and develop the technical program (including all formats of sessions and workshops). This is accomplished through a rigorous screening and ranking process, with the final program being compiled at the Midyear Meeting.
- As appropriate, recruit content to meet industry education needs.
- Provide a streamlined path for publication of WEFTEC academic papers in Water Environment Research
- Serve as moderators and assistant moderators for the WEFTEC program.
- Awards:
 - Martha Hahn award
- Plan and identify mater lecturer for AEESP/AAEES scientist luncheon
- Provide a speaking opportunity for winner(s) of the WEF Innovative Technology Award
- Through strategic planning, improve and evolve the content and delivery to meet the changing needs of WEF members and the industry.

Committee Services

The Program Committee currently works with partners to share content for other conferences. As we evolve our partner strategy, we intend to share and coordinate content with WEF Specialty Conferences and MA conferences. It is our intention to use these partnerships as a means to continue the conversation after WEFTEC and even prep conversations before WEFTEC.

MA Involvement/Interaction

The Programs strategy is to better serve and interact with MAs. The plan for that involvement will be laid out and developed over the next two years.

Committee Member Engagement

The Program Committee Engages its members both directly, through face-to-face contact at the Mid-Year Meeting and WEFTEC meetings and tangentially through the Program Steering Committee (comprised of the chair and vice-chair of each symposium).

We provide an on-boarding program through periodic webinars that outline the expectations of membership, summarize the program development steps and schedule, and provide detailed instructions on the members' specific tasks. There is also a recorded webcast that steps through abstract review using the online review system.

The effort expected by Program Committee members is significant and required for continued membership. Where members do not actively contribute to the development of the program, they are contacted and either agree on a path to reengagement or are replaced.

Marketing Plan

Market Opportunities

WEFTEC activities and the program are robustly marketed by our team of professional marketing, design, and production staff. The Program Committee provides significant input on relevant topics, priority issues and audiences, speakers to highlight, innovative ideas, potential channels, feedback, etc. to inform marketing activities.

Alternative Format for Current Products

The Program Committee has been very focused on providing our content to WEFTEC attendees in various formats that are meant to be most effective in engaging the audience. We have also considered how to offer content outside of WEFTEC through partnerships and other conferences. Because of technology cost and limitations imposed by the conference venues, providing alternative ways for members to access WEFTEC content can be difficult. The most promising idea that we are investigating is to maximize the use of the WEFTEC application on our Smartphones. WEF has full control over what is offered on the application – it is not dependent on the conference location or even the time of year, as it could be utilized outside of the WEFTEC timeframe.

Resource Needs

Financial Resources

The Program Committee submits needed budget through the normal budgeting process each year. From our strategic planning efforts we see the following financial considerations as of high importance to the Program Committee:

- Production, collection, and assessment of data to quantify what attendees are doing and what they want to do. With RFID and other emerging technologies, this has become more available. We believe it will be important to continue to set aside funds for such data collection and analysis and we wish to continue the conversation regarding analysis of the data.
- Focused investment in infrastructure that WEF owns. Conference venues have a captive
 audience and certainly charge fees for technology that reflect that. As the pressure to continue
 to evolve and use technology to reach our attendees, the Program Committee recommends that
 WEF focus its investments on the infrastructure it owns, where possible. In particular, the
 WEFTEC Application certainly has room for growth in its capabilities to both pull and push
 information before, during, and after WEFTEC. Investments in capabilities that can be harnessed
 by the use of a smartphone are transferrable from venue to venue and from conference to
 conference.
- **Flexibility as we explore.** The Program Committee is working to provide different styles of content delivery to best suit our audience and the content. Since we only get one shot at WEFTEC each year, there are often a number of new things that we are trying. We will come forward with our asks each year in this regard and we ask for the flexibility and investment to allow us to improve content delivery. It may be time to increase the number of rooms we have available to provide engaging new sessions while also providing the lecture formats for those that prefer and need them.

Staffing Resources

The Program Committee is supported mainly by 3 staff. These staff are adequate for our current model, with additional help needed from June through September (currently utilizing a temporary employee during those months). However, as we increase the number of interactive and different formats, more time will be needed to assist in developing, adapting, delivering these products. The additional help to quickly analyze and produce actionable points from the data is a struggle and we should be sure we have adequate resources to do this crucial analysis.

WEF's increased focus on use of data will also benefit the committee as timely access to data has been somewhat difficult in the past. Staff have been focusing with the current vendors and we continue to get the relevant data and analysis quicker and hope that trend continues.

Program Committee Organization Structure 2017/18 (As of 09-29-18)

