ENGINEERING
AND TECHNOLOGY
for a sustainable world
INTRODUCTION

Over the last century, significant engineering advances have been made in serving the world’s needs for food, water, fiber, and energy. From the steel plow and center pivot irrigation systems, to drones and autonomous, unmanned vehicles patrolling our planet, a driving human resource behind each innovation has been the same: agricultural and biological engineers (ABEs). There are many reasons why ABEs are so tirelessly devoted to creating a healthier planet but one is more distinguishing than the rest. They do it because they have a passion for helping others and understand the importance of addressing the global grand challenges to improve humanity for all.

The American Society of Agricultural and Biological Engineers (ASABE) Foundation is proud to support a profession that makes such a profound impact on our planet. Looking to the future, we see a tremendous opportunity to build on our history of success as we seek to support those who dedicate their lives to creating a stronger, more sustainable world for tomorrow.

For more than 30 years, the Foundation has served as the charitable arm of ASABE, generating and awarding resources to aid the Society and its members to build a stronger future for the agricultural and biological engineering profession.

Funds administered by the Foundation are used for awards, scholarships, competitions, special projects, and to support ASABE programs. Each year, we recognize exemplary individuals within the field and offer opportunities for ABEs at all levels of their careers as they work to create a world with abundant food, water, energy, and a healthy environment. Some of the more notable ASABE Foundation initiatives developed in recent years include:

**Giving Back Fund** | Designed to support projects that showcase the knowledge and skills of ABEs to benefit underserved individuals or groups.

**KEYS Fund** | Focuses on student development and humanitarian outreach in four vital areas: K-12 Education, Encouraging humanitarian outreach, Youth career development, and Student chapter support.

**Global Outreach** | Includes numerous international funds and global awards that recognize outstanding contributions to the profession and support ongoing excellence worldwide. Recent examples include the *Sukup Global Food Security Award*, and *Lalit and Aruna Verma Award for Excellence in Global Engagement*.

The generosity of ASABE members and industry stakeholders committed to supporting our profession is the reason we are able to provide funding for these programs. Without their support, none of this would be possible. While the Foundation is proud of what it has accomplished, we are ready to elevate our profile and further support ASABE with leading the charge in advancing our profession.

*Agricultural and biological engineers improve lives and livelihoods. The ASABE Foundation supports the work of ABEs.*
As the need for ABEs grows, attracting young talent to the industry will be a key component for the development and prosperity of our profession. Like many professions, an aging workforce is leading to concerns about the future of the field. Who can – and who will – lead our profession? Are we attracting talent at an adequate rate? What can be done to ensure future leaders are positioned and prepared for success? In order to solve the complex issues on the horizon, we must inspire young, bright minds to consider careers in agricultural and biological engineering.

With topics like sustainability, Food, Energy, Water (FEW) Nexus, and big data, there is a vast amount of knowledge that can be further explored by practicing engineers and others. While students and young professionals represent the future, senior-level engineers continue to serve as the backbone of the profession and their involvement remains essential to its continued success. As our profession evolves, seasoned veterans can benefit from ongoing research and education to understand new technologies and techniques that impact the way we fulfill our duties.

In order to truly strengthen the global community of ABEs, we must increase access to knowledge, networks, and professional resources for everyone. In many countries around the world, access to education and information is limited. Agricultural and biological engineers in developing countries may not have the same opportunities to access publications, research, whitepapers, articles, webinars, and other critical educational resources. They may never have the opportunity to attend the ASABE Annual International Meeting to expand their networks and have meaningful conversations with their global counterparts. Just as it is important to drive new innovations, it is equally imperative that we elevate the status quo by ensuring ABEs in all parts of the world receive the tools and support they need to develop as professionals.
The ASABE Foundation is seeking to build on its 30+ years of achievement in order to continue proactively addressing the challenges affecting the ABE profession. To aid us in shaping our future strategy, we continue conducting assessments like what was reported here that invite input from ASABE members and leading corporations. The ultimate outcome from these assessments is action that will drive progress.

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Based on feedback from ASABE members, the Foundation isolated four core pillars of action:

**I. Workforce Development**
Initiatives to attract, engage, and develop students and young professionals for careers in agricultural and biological engineering.

**II. Professional Development**
Supporting ASABE programs and other Foundation activities that provide members with critical continuing education and acknowledge outstanding achievements.

**III. Facilitating Research and Development**
Providing a forum to actively engage researchers and practitioners for discussions on developing hot topics such as FEW Nexus, sustainability, and big data, through conferences and symposiums. Supporting idea development and implementation through standards and engineering practices.

**IV. Global Connectivity**
Travel grants, exchange scholarships, and other initiatives designed to increase access to resources and strengthen the global community of ABEs.

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WORKFORCE DEVELOPMENT

In order to ensure a strong future for the profession, the Foundation will continue to execute initiatives focused on attracting young talent, developing their core competencies, and motivating them to achieve excellence. As students choose to enter the field, we will encourage their participation in ASABE and create opportunities for them to experience the value of joining our professional community.

KEYS Fund
Started in 2015, this initiative provides funding to Society projects that educate youth about careers in agricultural and biological engineering, build leadership among students, and expand reach of ASABE to those most in need.

Student Awards, Competitions, and Scholarships
The Foundation will continue to support students through existing funding opportunities, including: 3 Major Awards, 2 Scholarships, 9 Design/Performance contests and other competitions.

Mentorship Program
With an already existing framework, the Foundation will support e-mentoring efforts to create opportunities to connect seasoned members of ASABE with students and early career professionals.

Annual International Meeting (AIM)
Student Travel Assistance
Understanding that students may not have the financial resources to attend the AIM, the Foundation will explore travel assistance opportunities designed to provide financial aid to those interested in attending.

PROFESSIONAL DEVELOPMENT

The Foundation has a long history of supporting ASABE programming and intends to uphold this tradition in order to ensure members are prepared for the ever-changing agricultural and biological engineering landscape.

Supporting ASABE Programs
The Foundation maintains several funds that support ASABE programming in areas such as education, standards, professional registration, international development, research, and public policy issues.

Specialty Conferences
The Foundation is investigating opportunities to provide support for ASABE-sponsored specialty conferences to offer members and other ABEs forums for the exchange of ideas and information and develop new technology areas.

Educational Webinars
The Foundation will seek to partner with individuals, organizations, and companies to provide webinars on topics such as technology, soft skills, fundamental and professional engineering licensure activities, career path development opportunities, and other technical skills.
### FACILITATING RESEARCH AND DEVELOPMENT

Given the rapidly changing agricultural landscape, we understand that an informed industry is better prepared to identify emerging trends and seize new opportunities. While the Foundation is not a research funding entity, there are ways that it can contribute in this area by continuing to support the research and development efforts of members and enhancing funding for existing research grants and awards.

**Ongoing Needs Assessments**
The Foundation will utilize mechanisms such as surveys, lightning polls, and focus groups in order to remain in touch with members’ needs and to identify key areas of opportunity within research and development, such as: forward-looking conferences, standards, and design practices.

**Grants and Awards**
The Foundation will continue to support existing grants and awards, and identify opportunities to expand these efforts.

### GLOBAL CONNECTIVITY

As an international organization, one of the greatest strengths of ASABE and the Foundation is the ability to connect members all around the world.

The Foundation embraces this role and recognizes the importance of further expanding its efforts to ensure that ABEs everywhere have an equal opportunity to access information, education, and other resources that contribute to their personal growth and professional success. As the Foundation looks to the future, it will serve as a conduit for the vast network of agricultural and biological engineers around the world.

**Annual International Meeting**
The Foundation will seek to develop additional collaborative activities at the AIM in order to give members an opportunity to understand the impact being made around the world. Additional opportunities exist for the Foundation to explore virtual mechanisms that support distance learning for those who are unable to participate in person.

**Travel and Exchange Grants**
The Foundation is considering the creation of grants that will facilitate greater international collaboration (i.e. providing financial aid to assist individuals from developing countries to attend the AIM or sending US members abroad to share their knowledge).

**International/Global Funds and Awards**
The Foundation will expand its international support and continue to administer funds and awards such as:

- **International Development Fund**
- **Kishida International Award**
- **Pharos of Alexandria Global Learning Award**
- **Verma Award for Excellence in Global Engagement**
- **Sukup Global Food Security Award**
Building on member and corporate feedback captured through the recently completed development assessment, the Foundation is already taking action to elevate its impact. Through these efforts, the Foundation will continue to support existing priorities and explore new funding opportunities. To aid us with achieving our goals, we invite everyone with an interest in the agricultural and biological engineering profession to consider making a contribution.

As you think about supporting the ASABE Foundation, know that you are making an investment in the future of our profession. All commitments will be accepted and recognized appropriately. The Foundation Board of Trustees is extremely grateful for the ongoing generosity of its donors. Their support makes our work possible.

To view a list of Foundation donors, visit asabe.org/foundation.

If you are interested in learning more about the ASABE Foundation and the opportunities to give, please contact Liz Metts, Director of Development, at (269)-932-7002 or metts@asabe.org.

*Please consider giving. Together, we will create a stronger future for our profession!*
By taking this strategic approach and engaging leaders of our profession, the ASABE Foundation’s funding efforts could revolutionize the way in which it is able to support the ABE community.

I appreciate the Foundation’s hard work. It is an important part of ASABE and will continue to be successful by funding vital priorities that move the profession forward.