

A Statement for IUVSTA – Dr. Jay H. Hendricks

It is with great pleasure that I submit my presidential statement of intent to lead IUVSTA as your president. I believe that our rich history and past (as a Union that values world-wide education and communication) illuminates our path forward as we adapt to an ever-changing world.

We stand at an important juncture for the Union. How we maintain our sense of history, while we adapt to inevitable change, is critical to our future success and impact on society. A key part of my plan is a **science for good** campaign. We will seek both visibility and growth of the Union. The issue of sustainability also must be addressed. Our Union will value diversity, equity, and inclusion such that the entire world is reflected in IUVSTA as we draw on the strength of all mankind throughout the world. Science is an expensive investment, and it should provide return on that investment by giving back to society in an equitable and inclusive way.

We will build on the strength and vision of IUVSTA. Since its founding in 1958, IUVSTA, along with its member societies, has organized Scientific Conferences, Workshops, Technical Training Courses, Short Courses, and Schools that all together now number in the hundreds of events. IUVSTA's strength lies in its network of membership, which spans the world (and time zones) with nearly three-dozen member countries and organizations.

Over the past 64 years our Union has reached thousands of researchers/students who have benefited from educational programs that teach the vacuum science that drives our modern technology and society. As we move forward, we will rely on, and celebrate our key resource, **our volunteer people**, who contribute to our divisions, committees, and member societies. While we draw on our member societies, our Union will also seek to add value back to our member societies, with website improvements, organizational, and communication tools that include revolutionary forms of communication manifested in software apps and platforms.

I started my personal journey to IUVSTA back in 1997 when I attended my first AVS conference in San Jose, CA. It was there that I fell in love with vacuum science and technology, not just as a tool, but also as a field of research and study. Over the next 25 years I became involved in the AVS Vacuum Technology Division (VTD), serving in a variety of roles that included VTD Chair, VTD Program Chair, VTD Student Awards Coordinator, and VTD IUVSTA Representative. I first met Joe Greene at an AVS Conference that sponsored a social mixer for IUVSTA delegates. Here, I learned about the worldwide reach of vacuum science and technology. Joe introduced me to IUVSTA and encouraged me to join. Manfred Leisch recruited me to plan the IVC-18 VST program, and in 2010, I attended my first IVC meeting in Beijing. It was both Joe Greene and Manfred Leisch who encouraged me to run for Chair of the VSTD, which I did in 2013. I was elected as an AVS Fellow in 2015 and have served as an AVS Director. I Chaired the AVS Recommended Practices Committee, and I now serve on the AVS Publications Committee. I have now served two triennia as IUVSTA VSTD Chair (2013-2019) and for the past triennium, I have served as your IUVSTA Scientific Director.

It is these experiences that have provided me the necessary qualifications to take the step now to run for IUVSTA president-elect. I have the experience of serving many different roles in a large international vacuum society, the AVS. Serving within IUVSTA, I have seen firsthand the Union's strengths and weaknesses. Working together within the Union, we will certainly have a significant global impact. Our strength is drawn from our camaraderie and energy of those that volunteer their time to their passion of science. We are stronger together in a similar manner in which steel becomes stronger through the addition of carbon. I believe that our strength as a

Union is enhanced as we embrace our unique differences. We will continue to build our strengths as we unite people that share a passion for science and technology. Diversity, equity, and inclusion are part of our goal of “science for good”. The Union will benefit through future opportunities derived from the engagement of key global scientists and engineers. We will embrace how our differences can give us new insights on meeting our core goals while we move forward along a well-defined path.

We currently are ready to embrace the *International Year of Basic Sciences for Sustainable Development*. The social impact of IUVSTA will be strengthened with a focus on sustainability. There are so many examples of how vacuum technology can “save us from ourselves”. Carbon free forms of energy (from solar cells to generate it, to new battery technology to store it, to higher efficiency light emitting diodes to conserve it) are all underpinned by vacuum science and technology. Vacuum technology is everywhere, from superconductors, to cell phones.

The power of the Union is in its membership and global reach. We will grow by admitting new member countries and encouraging IUVSTA funding for new member societies in order to plan Workshops, Schools, Technical Training venues and Short Courses. Our website is our gateway and connection. It has been greatly improved over the past triennium and should continue to improve in terms of reach and content.

The pandemic has left its mark on the world of science. While the vaccine itself is viewed as a fantastic success for science, the inability to meet face to face has seriously damaged our ability to innovate and collaborate. The ease of the virtual meeting, plus adding a hybrid-option to many in person meetings is one of the biggest challenges our Union faces. Therefore, the Union must focus on high-quality in-person events with a combination of regional, and international activities. The value of the in-person meetings now becomes more important than ever!

IUVSTA and the role of future conferences will be critical. We cannot let the Zoom meeting weaken how we conduct science and conferences. By the same token, we cannot ignore this new and powerful platform that can reach all parts of the world for pennies on the dollar. It has the power to unlock the world of science and technology to many parts of the world where in-person travel is not financially possible. We will take advantage of new technology, not to replace our “in person meeting”, but rather to expand our reach. This is where we can lead with our educational influence. Webinars, e-meetings, and both live and recorded content are all possibilities. We need to find ways to experiment. This will not happen on its own; it needs a serious push. We can leverage our financial success to spend on expanding our reach by providing grants to fund activities that would never happen without IUVSTA’s involvement.

We will use our financial reserve wisely. We will keep our financial balances strong, engaging in ways to invest in the future. I believe a forward-looking financial strategy of investment in people can be very powerful to maximize our “scientific return on investment”. The world has changed, and we need to get the best possible value out of travel and in-person meetings such as ECOSS, VASSCAA, IVC, and ICTF, and EVC. We do this by combining in-person events for these (and other) major scientific meetings.

Your receptivity to these ideas arising from previous discussions that I have had with many of you is appreciated. In the role of president, I pledge to also interact with member societies. Together we will listen, conduct, measure, learn from mistakes, re-format, and re-engage. We will organize, innovate, and lead the world of vacuum science, technique, and applications to maximize our global impact for both science and society. Join me, this is going to be fun!

Sincerely



Dr. Jay H. Hendricks