

ISPE YOUNG PROFESSIONALS HACKATHON:

Networking and Learning

By Aisling Judge and Sam Andrews

Judging the teams' spaghetti towers during the icebreaker activity.

The ISPE Young Professionals (YPs) Hackathon, which has become an annual event run in conjunction with the ISPE Europe Annual Conference, brings together some of the brightest, most inquisitive young engineers from across Europe for a two-day networking and learning event.

This year's event was organized by the ISPE Ireland Affiliate YPs. Special thanks to John Clarke, Emer Somers, and Elaine Clarke, as well as Marta Malo de Molina of the ISPE Spain Affiliate and the many others who assisted.

On 30–31 March 2019, more than 25 YPs gathered at the Clayton Hotel Dublin and were posed a simple challenge:

"It's 2030 and you have been employed at Jigsaw Inc., an innovative pharmaceutical manufacturer. Develop a strategy for a new multiproduct Dublin-based facility."

HACKATHON RULES

The YPs were divided into four groups, and each group was given a separate theme for the challenge. These themes mirrored many of the topics covered in the ISPE Europe Conference over the subsequent days: Pharma 4.0, process analytic technology (PAT), next-generation therapeutics, and single-use technology. Under the guidance of senior ISPE mentors (Damian Greene, HiTech Health; Christian Wöbeling, Werum IT Solutions; Ursula Busse, Novartis; Gert Moelgaard, Moelgaard Consulting; and Eamon Judge, Eli Lilly), the groups explored and brainstormed potential ideas and solutions to the challenges the pharmaceutical industry may face in 2030.

Each group was tasked with scoping the topic, developing a project charter, and assessing the financial implications of their

proposed solutions, with the ultimate goal of pitching to a panel of expert judges at the culmination of the Hackathon.

In conjunction with the core topics, and in keeping with the ISPE Communities of Practice (CoPs), representatives from each of the four groups broke out on the first afternoon to form mini-CoPs and discuss a number of challenges faced across all themes. CoP topics included data integrity, supply chain management, regulatory issues, and sustainability—all pertinent topics for the pharmaceutical industry as a whole. When groups reconvened, each member shared the lessons and challenges they had gathered while participating in their CoP. During this exercise, participants immediately noted the significant overlap among the Hackathon themes and how no one topic was independent from the others.

NETWORKING OPPORTUNITIES

Of course, the event wasn't all work and no play! After a challenging first day, the true networking began in earnest with an evening meal attended by ISPE International Board members and staff at Medley in Dublin. The meal, sponsored by Novo Nordisk, was an opportunity for the YPs to let their hair down, learn more about their new colleagues and friends in an informal setting, and converse and network with more experienced members of the ISPE community. The dinner proved to be a huge success and one of the highlights of the two-day event.

Sunday morning dawned bright and early for the YPs. While there were some bleary eyes, all groups were busy putting the finishing touches on their presentations. Each group then had the opportunity to make a 15-minute pitch to the panel of expert judges regarding their initiatives and suggestions: LeAnna Pearson Marcum, Manager, QA Validation, bluebird bio, and 2019 International YP Committee Chair; Michael Rutherford, Executive Director, Computer Systems Quality and Data Integrity, Syneos

Health, and a member of the ISPE International Board of Directors; and Paul Gerhard Heiden, Senior Vice President, Corporate Quality, Bayer AG.

FUTURE VIEWS

So, what does manufacturing in 2030 look like according to the YPs? They imagined a future of three-dimensional printing of consumables, ballroom manufacturing suites, drone delivery of medicines to and from patients, and novel methods for integrated real-time data collection and cloud storage. Each team was quizzed on their proposals by both the judges and the audience of fellow YPs, with team Pharma 4.0 chosen as the overall winner. Each member of that team received a year of complimentary membership to ISPE.

Overall, the YP Hackathon proved an outstanding success, allowing participants to share ideas and experiences across a wide network of peers. Teamwork and communication skills were developed by all, as groups learned how to harness the unique expertise of each individual contributor to arrive at the best solutions. Friendships were formed and relationships were built, with

everyone looking forward to the opportunity to reconvene at the 2020 ISPE Europe Annual Conference in Madrid. 

About the authors

Aisling Judge is a Bioprocess Engineer at Eli Lilly's API Manufacturing Facility in County Cork, Ireland. She graduated in 2014 with distinction as a chemical and bioprocess engineer from University College Dublin and subsequently attended University College London, where she completed a master's degree in biochemical engineering, graduating top of her class. In 2015, Aisling joined Eli Lilly as a bioprocess engineer and was actively involved in the startup of the site's IE43 Train 1 large-volume mAbs facility. She has since overseen process engineering aspects of two new products' introductions, including additional purification unit operations. Aisling is an Eli Lilly Outreach University Ambassador, working with Irish universities to promote engineering and advise on curricula to meet the Irish pharmaceutical sector's needs. She became an ISPE member in 2019.

Sam Andrews is Global eCompliance Manager for Commercial IT at Novartis and is based in Dublin, Ireland. He previously spent six years within the life science industry consulting with Integrity Solutions Ltd., working in the United Kingdom and Ireland. He has been an ISPE member since 2016 and is the Secretary of the ISPE GAMP UK Community of Practice. He is an active member of numerous Special Interest Groups, including Data Integrity and Agile. Sam has a bachelor's degree from the University of Sheffield and a distinction class MSc in information systems from the University of Brighton. He is also accredited with the PRINCE2, ITIL, and BCS software testing certifications, and is an Agile Project Management practitioner.

HACKATHON Q&A

What is a Hackathon?

The word "hackathon" is taken from the words "hack" and "marathon," where "hack" is used in the sense of exploratory efforts. Hackathons typically start with one or more presentations about the event and the specific subject. Then participants form teams based on their individual skills and interests. The work can last anywhere from several hours to several days. At the end of the Hackathon, there is usually a series of demonstrations in which each group presents their results.

What will happen at the Student & YP Hackathon at the 2019 ISPE Annual Meeting & Expo?

The Student & YP Hackathon will bring ISPE Student and YP members together for a weekend of networking, collaboration, education, and innovation. All participants will receive a real-world, industry-relevant case study prior to the Hackathon. At the Hackathon, participants will be put into teams. Each team will receive a challenge based on the case study and work together through the weekend to develop a solution. More experienced YPs will be on hand throughout the

Hackathon to coach the teams, and industry professionals from the United States and Europe will judge each teams' presentations on the last day. The Hackathon will be held Saturday, 26 October 2019 from 0900–1700; and Sunday morning, 27 October 2019, ending at 1100, when the judging will be held along with a celebratory brunch.

Will there still be an International Student Poster Competition?

Students who win local poster competitions and are sent to Annual Meeting by their Chapters/Affiliates will display their posters in the foyer outside of the Exhibit Hall. A specific time will be scheduled for them to discuss their posters with interested conference attendees. These students, along with other ISPE Student and YP members, will also participate in the Student & YP Hackathon.

Who is eligible for the Student & YP Hackathon?

Students who win their local Student Poster Competition are automatically enrolled in the program, which is also open to all ISPE Student members in undergraduate or graduate programs, along with ISPE YP members.

—Debbie Kaufmann, ISPE Membership Coordinator