

International Insights captured from International Pressure Test (IPT) in Austria

Karla Kosch, WorldSkills UK Training Manager for Robot Systems Integration reports:

The Austria International Pressure Test and training took place week 24th – 28th July 2023 in Sterner Training Centre, Wels, Austria. Participating teams were Austria and UK; competing and training in 2 different test projects, due to resources constraints.

Austria team completed Disassembly WSI kit designed and developed by UK Expert in May 2023. Austria team's IPT results were benchmarked against IPT May results, held in Northern Ireland by Hungary, Romania and UK teams.

UK team's IPT results were benchmarked on FESTO assembly module kit IPT against Germany and Austria teams. The Test Project was designed by ES CE Germany Expert in collaboration with ES DCE UK Expert and Austria Expert.

Karla Kosch participated as EuroSkills Deputy Chief Expert and UK Training Manager to the judging team, along with the Austrian Expert and UK WS2022SE Team UK member, Adam Kirkpatrick; with online support from Germany Expert.

The International Test Project UK undertook was initially used in Austria Skills 2021 and further developed by CE Germany and DCE UK with technical support from Austria Expert. The project used the FESTO assembly module kit and involved implementing compressed air functions within the actuators used in the robotic cell design. Exposing UK Team competitors to a totally new task and additional pneumatics challenges was an excellent process that will highly contribute to final preparation for EuroSkills Gdansk, September 2023. Infrastructure list and layout prepared for ES present the possibility of implementing pneumatics into a blind project that is used in RSI skill. Exposure to this type of Test Project created a huge benefit and insight to the UK competitors and training team. Marking conducted with the collaboration of CE Germany and Austria Expert were also a great benefit as it presented the international standards expected in electro-pneumatics test projects developed and held across Europe.

The Test Project was held over 3 days, as in EuroSkills competition; with 1 day cell preparation and familiarisation with the new BOM FESTO modules implemented in the task design and 1 final day of feedback and learning missed aspects or reinforcing unclear elements of the test project.

The final result in comparison with AT placed UK in first position, with an overall total of 77%.

The second IPT completed by Austria team on WSI kit with the new task developed of cylinder disassembly, was a direct comparison with IPT held in May in Northern Ireland by Hungary, Romania and UK teams that had placed UK in first position with 83.23%, Hungary with 70.57% and Romania 69.96%. Austria team was placed in the last position with a result of 66.13% The CIS marking scheme used initially in May IPT couldn't be re-used for Austria team as it was locked after final results were completed and presented a very skewed result of 1093 on 700 marking scale for UK team in comparison with 700 Hungary and 680 Romania, respectively. This prompted that the CIS software update is totally required and a more in-depth CIS training for the UK Expert would be more than beneficial for further test projects developments and IPT, as well as contributing on understanding the international marking standards in my role of ES DCE and WSI CE.

The visit to Fanuc Austria was impressive as the managing director welcomed Skills UK and Austria and gave a comprehensive tour and presentation of the latest technologies, machines and robots they provide to Austrian market, including the top training academy facility in Fanuc Educational cells equipped with 6 robotics cells. As part of team-building activity Fanuc Austria invited UK and AT teams and TMs to a karting race, winner being awarded Fanuc robot Lego and various gadgets, water bottles and mugs.

The second visit to Sterner tools manufactures of precise moulds for Starlim silicone injection moulders was an introduction to how apprenticeship programme is implemented into industry with practical work placements during the last year of study. Various CNC machining centres (turning, milling, cutting, etc.) tended by FANUC robots were operated and programmed by the apprentices, while supervised by the sector manager. The silicon injection moulding plant was amazingly clean and totally automated with more than 400 injection moulding machines producing a wide range of silicon products ranging from medical devices, car and phone components and home appliances.

Research, sharing of resources and approaches to workforce development

In my role of Deputy Chief Expert of EuroSkills Gdansk 2023 and Chief Expert of WSI Lyon 2024 competition and as UK RSI TM, I have developed a great working relationship with Austria and Germany Experts and gathered more support in developing a good practice guide and assessment standards in this skill. Based on the collaboration with the Austria Expert, sharing of experience and training material could be a great opportunity to benefit from this international partnership.

Overall, my experience was a great opportunity in preparation for my DCE and CE roles in the next international competitions in respect to monitoring all the organisational tasks, knowledge of the rules and regulations, promoting a positive fair and transparent atmosphere throughout the competition, promoting this newly developed skill. All in one a unique experience and maybe the bilingual skills had also a positive contribution to the smooth run of the IPT. As an afterthought, maybe learning some basic conversational skills in each competition hosting country language could have some positive benefits in the future.