

Laudatio for Professor Enrico Bernardo

Dear Rector, distinguished members of the Academic Senate and Scientific Board, esteemed colleagues, honoured guests, ladies and gentlemen,

Today, we gather to celebrate a scientist whose achievements have earned him international recognition, a mentor who has shaped the careers of countless young researchers, and, for many of us in this hall, a trusted colleague and dear friend. It is my great honour and personal pleasure to present the laudatio for Professor Enrico Bernardo on the occasion of conferring upon him the honorary degree *Doctor Honoris Causa* of Alexander Dubček University of Trenčín.

In academic life, we often meet excellent researchers. Much more rarely do we encounter individuals who are capable of opening entirely new directions in science while at the same time lifting up the people and institutions around them. Enrico is one of those rare individuals. His career demonstrates that scientific excellence and human generosity are not separate virtues. Rather, in the most exceptional scientists, they reinforce one another.

Born in Mirano, Italy, Enrico pursued Materials Engineering at the University of Padova, graduating summa cum laude before obtaining his PhD from the University of Bologna. He subsequently embarked on a career at the University of Padova that led him through every academic rank to his appointment as Full Professor of Materials Science and Technology in 2025. Throughout this journey, he remained driven by an insatiable curiosity about how materials can be designed, transformed, and reimaged to address the technological and environmental challenges of our time.

Professor Bernardo is internationally recognized as one of the leading experts in sustainable glass and ceramic materials. Long before circular economy became a common scientific and political objective, he was already developing innovative approaches for transforming industrial waste, discarded glasses, mining residues, metallurgical by-products, and other secondary resources into advanced functional materials. His research has shown the world that waste is often only a resource waiting for the right scientific mind to discover its value.

Through pioneering work on glass recycling, vitrification technologies, alkali-activated materials, geopolymers, porous glass-ceramics, and environmentally friendly processing routes, Professor Bernardo has fundamentally changed how researchers think about resource utilization in materials science. He has contributed not only to scientific understanding but also to practical solutions that support sustainability, energy efficiency, and environmental protection. His work stands as a powerful example of how advanced materials research can contribute directly to societal progress.

Yet sustainability is only one part of his scientific legacy.

Enrico has also established himself as a pioneer in advanced ceramic processing, additive manufacturing, polymer-derived ceramics, bioactive materials, and glass-ceramic engineering. His research group has produced innovative methods for manufacturing complex three-dimensional structures, biomaterials for tissue regeneration, lightweight functional ceramics, and novel glass-derived products with unique combinations of mechanical, optical, and biological properties. His work continually bridges the gap between fundamental science and technological application, creating opportunities for both academic advancement and industrial innovation.

The international impact of his achievements is undeniable. With more than 260 scientific publications, nearly 10,000 citations, and an h-index above 50, his work is widely recognized and respected throughout the materials science community. He has been repeatedly included among the world's most cited scientists and has received numerous distinctions, including two prestigious Pfiel Awards from the Institute of Materials, Minerals and Mining, election as Fellow of the European Ceramic Society, and appointment as Global Ambassador of the American Ceramic Society.

However, if I were to describe Enrico only through publications, citations, awards, and academic titles, I would tell only a fraction of the story.

For us at Alexander Dubček University of Trenčín, Professor Bernardo has been much more than an outstanding external collaborator. He has been one of the key figures in our transformation into an internationally visible centre of excellence in glass science and advanced ceramics.

When the idea of creating the FunGlass Centre for Functional and Surface Functionalized Glass was first conceived, success was by no means guaranteed. Establishing a world-class research centre in a small country requires courage, vision, and strong international partners. From the very beginning, Enrico believed in that vision. As one of the principal partners from the University of Padova, he played a central role in both phases of the Teaming project that ultimately created FunGlass. His scientific expertise, international reputation, and unwavering support contributed significantly to transforming a bold ambition into a thriving European centre of excellence.

The influence of Professor Bernardo on FunGlass extends well beyond project proposals and strategic documents. Together, we have developed research programs in waste-derived glasses, geopolymer materials, additive manufacturing, advanced bioceramics, porous materials, photocatalytic systems, and sustainable processing technologies. Numerous joint publications, research stays, international projects, and successful doctoral theses reflect the depth and productivity of this collaboration. Many of the scientific directions that are now established strengths of FunGlass bear his intellectual imprint. Equally important has been his contribution to education.

Recognizing that research excellence depends on talented young people, Professor Bernardo was instrumental in establishing the joint doctoral programme between Alexander Dubček University of Trenčín and the University of Padova. Through this programme he has supported the training of doctoral candidates, supervised young researchers, hosted Slovak students in his laboratories, and provided them with opportunities that have profoundly influenced their professional development. Many young scientists associated with FunGlass have benefited directly from his guidance, encouragement, and mentorship.

On a personal level, Enrico has always represented the very best qualities of academic life.

He is intellectually demanding but endlessly supportive. He pursues excellence without arrogance. He approaches scientific problems with rigor and creativity, yet always finds time to help younger colleagues, share ideas, or offer advice. Working with him has never felt like a formal collaboration. It has felt like partnership, built upon mutual respect, shared curiosity, and genuine friendship.

Over the years, I have come to admire not only his scientific achievements but also the values by which he lives. His openness to new ideas, his enthusiasm for research, and his commitment to cooperation have made him a respected figure throughout the international materials science community and a cherished friend to many of us here in Trenčín.

Dear Enrico,

Today, we honour a scientist whose research has expanded the boundaries of glass and ceramic science. We honour a visionary who has demonstrated how sustainability and innovation can go hand in hand. We honour a mentor who has invested in future generations. And we honour a colleague who has contributed significantly to the development of Alexander Dubček University of Trenčín and the FunGlass Centre.

But above all, we honour a friend.

On behalf of the academic community of Alexander Dubček University of Trenčín, and personally on behalf of your colleagues and friends at FunGlass, I extend our deepest gratitude for everything you have done for our university, our students, and our research.

As we confer upon you the honorary degree *Doctor Honoris Causa*, we do so with admiration for your achievements, appreciation for your support, and gratitude for your friendship.

Congratulations, dear Enrico.