delays to the REIPPP programme. A case in point is a wind tower factory in the Eastern Cape that went into liquidation due to the postponement of projects. Locally manufactured tower sections for wind projects would have eased some of the logistical challenges surrounding these projects. This is over and above contributing towards the localisation targets set out by the REIPPP programme. Certainly, a resolute commitment from government to renewable energy bodes well for the entire industry," she concludes.

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UP AND CSIR SIGN COLLABORATION AGREEMENT ON SMART TRANSPORT, CITIES AND ENVIRONMENTS

The University of Pretoria (UP) and the Council for Scientific and Industrial Research (CSIR), an entity of the Department of Science and Innovation (DSI), signed a Memorandum of Agreement (MoA) on 22 July to collaborate in the area of smart transport, cities and environments.

According to Professor Wynand Steyn, Head of the Department of Civil Engineering in UP's Faculty of Engineering, Built Environment and Information Technology (EBIT), "The cooperation means that UP can focus on creating a pipeline of potential researchers in these areas." He explained that smart transport, cities and environments are part of an integrated system that encompasses digitised transportation systems, parking management, reduced traffic congestion, and addressing environmental problems. The aim is to reduce energy consumption levels in transportation, maximise productivity in industry, and provide a higher quality of life for citizens.

Prof Steyn explained further that, "To work towards smart cities, there is a need to develop researchers with advanced skills in robotics, artificial intelligence, the Internet of Things, and satellite technology. To this end, researchers will be trained through complementary skills at UP and the CSIR." This will further develop the skills required to design, construct, maintain and rehabilitate the extensive roads network in South Africa, a network that is vital for accessibility and the mobility of its communities, and in support of economic opportunities.

Kenny Kistan, CSIR Executive Cluster Manager: Smart Mobility, said, "The Smart Mobility Cluster of the CSIR sees the collaboration with the Engineering Faculty of UP as an integral component of its strategic initiative to address transport and infrastructure challenges in the country and on the continent. This will undoubtedly contribute to improving and advancing economic activity. This partnership will enable us to share our expertise to accelerate technology solutions in South Africa's smart mobility sector."

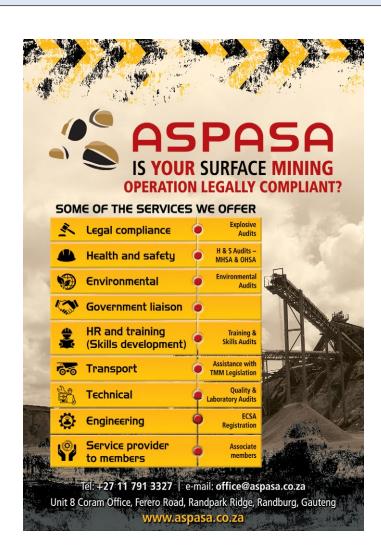
"Besides, this initiative is a positive start to co-create scientific knowledge and multi-faceted technological innovation and

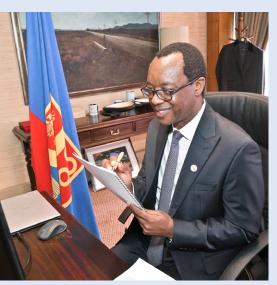


Prof Wynand Steyn (Head of the Civil Engineering Department and Chair of the School of Engineering) and Prof Sunil Maharaj (Dean of the Faculty of Engineering, Built Environment and Information Technology at the University of Pretoria) seen here in front of the university's Engineering 4 research facility

solutions, which is in line with our implementation plan and is linked to the CSIR's mandate to support and strengthen industrial activity in the country."

This collaboration includes the cooperative use of the CSIR laboratories and UP's Engineering 4.0 facility. These facilities complement each other and allow for larger research projects to be executed, with the involvement of postgraduate students. The collaboration also entails jointly working towards the establishment of a CSIR Research Chair in Smart Mobility at UP. This Chair will fund senior researchers and postgraduate students who will conduct research in areas of targeted need.





Prof Tawana Kupe, Vice Chancellor and Principal Professor, signs the Memorandum of Agreement on behalf of the University of Pretoria

Professor Sunil Maharaj, Dean of EBIT, said the state-of-the-art Engineering 4.0 building (a collaboration between UP, the South African National Roads Agency (SANRAL) and the CSIR which will be launched soon) hosts Africa's first independent transport reference and testing facility, which will test materials for the road construction industry. "Such testing will characterise materials for appropriate construction and maintenance. It is also a research and training hub for smart transport systems."

Disruptive technologies are changing the face of transportation in the world, Prof Maharaj said, and transport systems will look a lot different in 20 years. In Africa, changes in terms of mobility as a service affects the way that goods and people are transported. "Due to the vast distances between communities, economic opportunities and agricultural resources in Africa, an extensive transportation network of some sort will remain essential for the social and economic development of the continent in the next few decades." The envisaged smart mobility focus of this new collaboration will support the development of appropriate and functional transportation systems serving the country.

UP Vice-Chancellor and Principal Professor Tawana Kupe said, "We sign this MOA following a national and global fight against the Covid-19 health crisis. This pandemic requires us to look at innovative and unconventional ways of doing things in the higher education sector, in partnership with institutions like the CSIR. It is a big wake-up call to think and do things differently if we want to take the lead as South Africa, with our universities playing an essential role in co-creating the continent we want beyond Covid-19."

He said in this partnership UP seeks to advance the United Nations' 17 Sustainable Development Goals (SDGs), with particular focus on innovation, infrastructure, and sustainable cities and communities as critical for developing any economy. For Prof Kupe, the collaboration with the CSIR will cement UP's position as a leader in this field, making a distinct contribution to these goals. "Collaborations are imperative for finding solutions to national and global challenges."

Speaking at the signing ceremony, CSIR CEO Dr Thulani Dlamini said that collaboration with UP has a long history and has always been productive. This agreement is further testimony to the enduring partnership between the two institutions. "Our collaborations with higher education institutions such as the University of Pretoria enhance the CSIR's research, development and innovation activities through the production of high-quality knowledge, technologies and innovations in the chosen sectoral areas of focus. Further, they provide solid platforms for advancing our human capital development skills objectives and in this case we will jointly be developing skills of the future as part of the scope of the agreement."

Dr Dlamini further said the partnership was truly synergistic in that the envisaged application of emerging and fourth industrial revolution (4IR) technologies, amongst others in this collaboration, in fact executes the new CSIR strategy and does so as the CSIR mandate had intended.

"What is even more meaningful is that, through this partnership, we will also contribute to addressing the triple challenges of unemployment, poverty and inequality in our country, as smart transport, cities and environment are key to addressing these challenges."

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