



A close up of the display model featuring the recreation of Northumbria's Design and Business schools.

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3D printed Newcastle to become Civic Centre art installation

A scale model of Newcastle's core urban area produced as part of a partnership known as Virtual NewcastleGateshead (VNG) has been made available for the public to see the city from a new perspective.

The VNG partnership, a joint venture between Northumbria University, Newcastle City Council and Gateshead Council, forms part of Northumbria University's research into city modelling and spatial data, to create a definitive digital twin of Newcastle and Gateshead. For over a decade VNG has supported the Councils planning departments through interactive virtual assessments of proposed major developments against current and future visions of the cityscape, making the process more efficient and transparent.

The 3D data used in VNG has recently been translated into a 3D physical print model using powder printing technology, allowing planners to accurately view the differences in layout and scale of developments across the urban core of Newcastle, including those of future major projects

Now, as Northumbria has updated its facilities with new eco-friendly bioplastic 3D printers, the previous model has found a new home as a piece of art on display in the entrance of Newcastle Civic Centre, giving members of the public the opportunity to see a 'moment in time' representation of the city from an entirely new point of view.

James Charlton (L) and Adam Cosheril (R) stood with the model at its new location in Newcastle Civic Centre

James Charlton, an Assistant Professor in the department of Architecture and Built Environment at Northumbria, led the data management and digital visualisation of the model. He explained: "The 3D print model allows us to show off the city at a different scale and from a different point of view than we would do normally. It allows us to showcase the urban core and the density of it, not only in its current form but also with proposed future developments.

"It's great that the model has been placed in the council reception as it allows the public to look at the work that we have done and not only appreciate the city but also start to understand exactly how the city, its buildings and spaces, are laid out, as well as its scale and topography."

Adam Cosheril, the lead technician that oversaw the physical creation of the original 3D model, said: "Renders or floor plans of a building can be quite intimidating for a lot of people. When looking at the model, people understand things a lot more and it's a much more inclusive way to talk about where they are, where they grew up or where developments are going to take place.

"There have been moments where grandparents have been telling their grandkids old stories about the quayside or looking at the bridges and I don't think you'd be able to get that kind of engagement just from some pictures or plans."

Cllr Irim Ali, Cabinet Member for a Dynamic City, said: "We are delighted to work in partnership with Northumbria University to create a model of our fantastic city. It's new home in the Civic Centre provides a place where the public can view the model and appreciate our buildings and spaces.

"This physical model is a 3D print based on our virtual model of Newcastle. The model highlights our locally distinct built environment, dramatic topography, relationship with the river, iconic bridges and landmarks. It helps people gain a better understanding of our great city and how it is evolved.

"The Urban Design Team has worked closely with Northumbria University over the years to develop this cutting-edge technology for the Planning Department, so officers are better equipped to understand context, test views, and help assess complex schemes with developers and investors."

Visit Northumbria's <u>website</u> to discover more about the Virtual NewcastleGateshead (VNG) partnership or watch the below video produced by Newcastle City Council.



Image captions

VNG 1 – James Charlton (L) and Adam Cosheril (R) stood with the model at its new location in Newcastle Civic Centre

VNG 2 – A close up of the display model featuring the recreation of Northumbria's Design and Business schools.

VNG 3 – The model recreation of the river tyne and Newcastle city centre

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