

Al and Urban Planning: The Role of Smart Technology in City Development

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AMERSFOORT, UTRECHT, NETHERLANDS, March 6, 2025 /EINPresswire.com/ -- The integration of artificial intelligence (AI) in urban planning is changing the way cities are designed and developed. With the increasing complexity of urban challenges, digital tools that combine data-driven insights with human expertise are gaining traction. One such tool is the 3D Cityplanner, a platform that supports planners and designers in exploring urban scenarios using parametric design and geographic information system (GIS) data.

Al as a Collaborative Tool in Planning While Al is often associated with automation and decision-making, its role in urban planning is increasingly seen as complementary rather than substitutive. The 3D Cityplanner utilizes Al-driven algorithms to assist professionals in generating urban



3d cityplanner analyse



parametric design 3D Cityplanner

layouts, analyzing spatial constraints, and optimizing land use. Rather than replacing human input, the tool enhances the efficiency of the planning process while ensuring that creativity and expertise remain central to decision-making.

"Technology should facilitate, not dictate, the planning process," says Anne Dullemond, CEO at Strategis Groep. "By integrating AI with intuitive design tools, we enable planners to explore different scenarios more effectively, while they remain in control of the creative and strategic decisions."

Data-Driven Urban Development

One of the key strengths of the 3D Cityplanner is its ability to integrate GIS data, ensuring that design proposals are context-aware. Planners can assess feasibility and impact early by incorporating factors such as zoning regulations, infrastructure networks, and environmental data.

Among the tool's applications:

Parametric urban design, enabling planners to explore multiple layout options while optimizing for factors such as road access and solar exposure.

Integrated GIS analysis allows for real-time adjustments based on existing urban conditions. Sustainability simulations, supporting climate adaptation strategies, such as green roofs, water management, and energy-efficient layouts.

Practical Applications

Several municipalities and developers have already adopted data-driven approaches in their projects. By leveraging AI-supported planning tools, they have been able to speed up feasibility studies, improve spatial efficiency, and explore alternative design solutions.

In recent urban development projects:

Residential planning models have optimised land use while maintaining accessibility and infrastructure efficiency.

Green space integration has been enhanced through automated visibility and environmental impact analyses.

Infrastructure alignment has been improved by utilizing existing GIS layers to adjust designs in real-time.

According to urban development experts, the ability to test different planning scenarios quickly is becoming an essential factor in making informed decisions about future city development.

About the 3D Cityplanner

Developed by Strategis Groep BV, the 3D Cityplanner is a digital planning tool that combines parametric urban design with real-world GIS data. Headquartered in Amersfoort, the company works with municipalities, planners, and developers to support data-driven and sustainable urban development.

For more information, visit <u>www.3dcityplanner.com</u> or contact:

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