

THE LINE - A CITY OF THE FUTURE

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Abstract. *This study has the purpose to unpack one of the most mind-blowing concepts proposed by NEOM as a modern solution for the urban planning problem in Saudi Arabia. Reflecting on the impact of the industrial burn out on most of the urban areas, the specialists concluded that society is in desperate need of spaces designed for people and not for cars or machines. The Line, referred to as the revolution of civilization, would make a difference due to its special way of organization of life. It's a city that's 170 kilometers long, 500 meters tall and it's basically a line cutting straight across the desert with a facade of mirrors and the most interesting thing about it is that you can travel from one end of it to the other end in just 20 minutes, because it has got an ultra-super high speed public transit, which eliminates the need for cars and encourages walking. The entire city is going to have zero carbon emissions, running exclusively on renewable energy. However, this idea generated much criticism that questions the efficiency of such a project, and this article will help you get some insights and found your own opinion on it.*

Keywords: *efficiency, energy, linear city, sustainable, urban planning*

Introduction

When thinking of a city that boldly challenges the conventional paradigms of urban development and fundamentally reshapes our way of life, the picture we envision is a balanced mix of technology, sustainability, and human-centric design. This city aspires not merely to improve the present but to safeguard the environment for generations to come, all while enriching the lives of its inhabitants. Saudi Arabia and its new government presents us "The Line"—a provocative architectural endeavor that encapsulates these ideals and sparks fervent debate.

Context and background

In the last few years Saudi Arabia has suffered some drastical changes in the political field, and that event came with new perspectives for its economical and social situation. The main focus of their actual government is the launch of Vision 2030, which basically promises a series of reforms that should boost the quality of life of this country [1]. "We will empower citizens and businesses to reach their full potential, diversify our economy, support local content, and create innovative growth opportunities. This will be accomplished by creating a favorable environment for local and foreign investments...". Under this context, NEOM was founded, a massive architectural concept which consists of 10 controversial projects, including THE LINE. Fig.1 [4].



Figure 1. The Line-rendered model

Concept

Spanning 170 kilometers across Northeast Saudi Arabia's diverse landscape of coast, desert, and mountains, THE LINE is a monumental city encapsulated within a 500-meter-tall and 200-meter-wide building [2]. “THE LINE will eventually accommodate 9 million people and will be built on a footprint of just 34 square kilometers.”, offering a groundbreaking vertical urban experience across three distinct levels. Tab.1 The ground level is designed as a pedestrian haven, featuring parks and green spaces without any roads to accommodate cars, allowing people to stroll and enjoy quality leisure time. Above, the second level serves as the service hub, housing commercial spaces to cater to the residents' daily needs. The third level is set to deliver an unparalleled technological experience, featuring an ultra-high-speed transportation system. THE LINE's modular structure ensures residents can access all their essential facilities within a five-minute interval. For example, a resident living on the 50th floor could swiftly descend to the 20th floor via an elevator to dine at a restaurant, stay at a hotel, or visit a dentist. Moreover, horizontal movement within the city will allow residents to easily reach their offices, universities, or a football stadium, all within minutes from their homes.

Questioning the efficiency of such a project

While the internet is buzzing with admiration for every facet of this groundbreaking project, experts hold divided opinions. Several challenges could potentially hinder the realization of this ambitious concept, including:

Firstly, the construction of THE LINE may lead to the displacement of local communities living in the proposed area, affecting their livelihoods and cultural heritage, [3] “The whole thing has been strongly criticized, with reports revealing problems from vast over-spending to oppressive treatment of local tribes (who have been forcibly relocated for the project)”.

Secondly, despite its commitment to sustainability, the construction and operation of THE LINE could have unintended environmental consequences, such as habitat destruction and increased carbon emissions.

Another of the significant challenges facing THE LINE is attracting both investors and residents to invest in and populate this innovative urban development.

Table 1

Key Statistics of THE LINE Project

Key Metrics	Details
Total Length	170 kilometers
Building Height	500 meters
Building Width	200 meters
Footprint Area	34 square kilometers

Conclusion

THE LINE presents an ambitious and revolutionary vision for the future of urban living. While the project has garnered admiration and excitement from the global community, it faces significant challenges in attracting the necessary financial investment and residents to make this vision a reality. The high initial costs, uncertainties regarding return on investment, and economic stability concerns may deter potential investors. Similarly, convincing people to relocate to an entirely new and unique urban environment, coupled with ensuring competitive housing costs and robust job opportunities, will be essential to attracting a diverse and vibrant community of residents. Despite these challenges, the potential benefits of THE LINE, including economic growth, technological advancement, improved infrastructure, and environmental conservation, are substantial. Addressing the issues of affordability, infrastructure development, transportation connectivity, and effective marketing will be crucial in overcoming these challenges and establishing THE LINE as a sustainable and inclusive urban community.

Aknowledgements

I would like to thank The Verge for their valuable study on the critical points of THE LINE, which contributed significantly as a source to this article.

Sources

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