

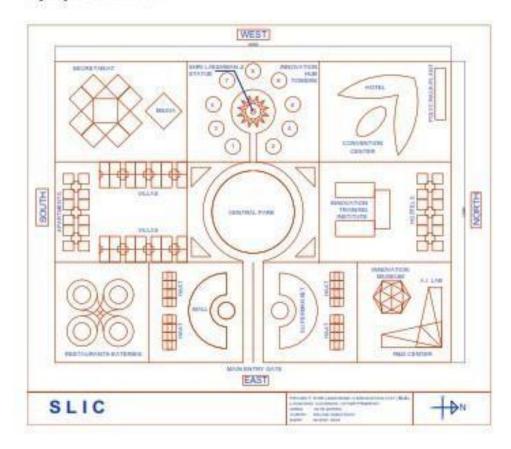
# **Space Lunar Innovation Corridor** (SLIC)

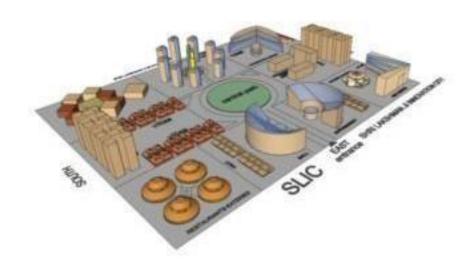
Space Lunar Innovation Corridor (SLIC) is a proposed innovation community, that aims to promote and support new entrepreneurs, innovators, and scientists from across the world. The SLIC plans to focus on the convergence of technology under Industry 5.0 and meta for education and social solutions, research, and development of environmentally sustainable solutions, such as solar and transport decarbonization, and sustainable agriculture tech, Medical, Astronomy, and best practices.

It will be a smart Innovation community that will have all the prominent features of Smart city and Innovation hub to give platform for upcoming entrepreneurs, scientists, etc. to develop new innovations and take them to the commercial stage. The smart Innovation community concept usually aims to provide users with many services that touch every aspect of their lives, including health, transportation, homes, and education. Moreover, several emerging issues have pushed cities to become smarter by introducing simple approaches and innovative actions to solve problems associated with urbanization, demographic change, and carbon footprint. An innovative community could be one where global multinational companies achieve major breakthroughs, where pioneering research is carried out by universities, or where start-ups create new ideas and concepts.

The SLIC concept has a wide range of interpretations. This concept might be seen by SPACE, AI, and ICT sector researcher in terms of implementing technologies that facilitate the achievement of the smart city concept. For example, several buzz words in ICT are commonly used when implementing the smart city concept, for example, Digital Twins, the Metaverse, Digital transformation, the Internet of Things (IoT), Ubiquitous computing, and many others. For public offices, such as commune administrations, the focus goes beyond enabling technologies, as they see all ICT systems as tools to perform a certain set of tasks. Therefore, they might pay particular attention to the integration process of such a system into their already existing systems determining the resulting combination. Moreover, a management researcher might be more concerned about the effects of building, running, and maintaining a smart city. It is appropriate to mention that this paper focuses on the fundamental role of innovation in linking SPACE, AI, and ICT with the others sectors to achieve the result and providing services in all sectors.

## City Layout & 3D Model :





SLIC in which the annual amount of CO2 emissions released is balanced by emissions removed from the atmosphere. NZEDs constitute a major component in a new generation of —smart-green cities', which deploy both smart city technologies and renewable energy technologies. It promotes environmental sustainability, contribute to cleaner environments and reduce global warming and the threats from climate change.

The community, based on the philosophy of \_encourage-acknowledge-appreciate-remunerate', will be designed to encourage and promote innovative thinking, entrepreneurship, research, and sustainable technologies to provide impetus to local economies, industry and employment, with the areas of focus encompassing:

- Human sustainability, which entails maintaining and enhancing human capital in society, improving education systems, facilitating access to knowledge and skills, and promoting economic sustainability.
- Environmental sustainability, which aims to safeguard natural capital (such as land, air, water, minerals, etc.) and enhance human welfare.

Keeping in mind the United Nations' Sustainable Development Goals of zero hunger, no poverty, climate action, and so on, SLIC's aim is to develop a single platform for innovations across different sectors such as:

- \* Artificial Intelligence (AI)& Virtual technology (VT) and Digital Marketing Services.
- New energy technologies viz.,
- \* Green hydrogen (from different sources like organic feedstock & Waste, Hydrogen fuel cells, Hydrogen storage for Transport. Etc.)
- \* Electric vehicles & Electric Batteries,
- \* Solar and other renewable sources along with Batteries \* Decarbonization technologies,
- \* New agricultural as well as manufacturing techniques.
- \* Medical & Astronomy

The SLIC plan includes an innovation as well as a commercial center, with a vision to provide a variety of services in each. The city also plans to provide incubation services, entrepreneurship development training, networking activities, marketing assistance, high-speed internet access, access to bank loans, debt funds, and guarantee programs, links to strategic partners, access to angel investors or venture capital, advisory boards, and mentors, management team identification, technology commercialization assistance, help with regulatory compliance, intellectual property management, and PLUG N PLAY incubation space with basic amenities.

This smart community will operate on a self-reliant and sustainable model, generating its own power from renewable resources, reformed, re-used and recycled, to minimize the dependence on natural resources.

#### The INNOVATION & COMMERCIAL CENTRE

Innovation Centre will include the following:

- 1. Government Secretariat & Administrative Tower: This is to facilitate all government related work, including clearances, under one single roof.
- 2. Media Centre: This center aims to provide support to new innovations through all formats of media from print, to digital and social.
- 3. Training Institute: This educational institute will provide knowledge and skill training support for those who may be keen developing on new innovations.
- 4. Hostel: A comfortable and resourceful place for lodging and boarding promising new innovators.
- 5. Innovation Hub Towers: Taking inspiration from the \_Navagrahas' (or the nine heavenly planets) that influence the quality of life on earth, these zones, comprising of innovative giants from across the world, will aim to inspire and thereby, influence new innovators with required support, in order to give commercial fruition to their ideas.
- 6. Convention Centre & Recreational Facilities: These facilities will serve two purposes: to host international conferences and to provide various forms of entertainment for visitors. These recreational amenities include water parks, virtual games stations, spaces based on the concepts of Disney Universal Studios, theaters for performing arts, cinema etc., all aimed at providing a one-stop-shop for recreation.
- 7. Hotel: For International & domestic visitors for training & Business.
- 8. Museum: The museum will display the evolution of core industries from their inception to present-day advancements.
- 9. Naturopathy Centre.
- 10. Spiritual & Knowledge Hub.

# Commercial Centre Centre will include the following:

11. Mall & Open Shopping area: The concept behind this area is to provide a space for multinational corporations to operate within the mall, while also offering small artisans and artists, a platform to showcase their craft, such as clay pottery, BangleMaking, Joothi-Making, etc., in kiosks and booths.

- 12. Restaurants Area: The aim here is to bring together international and national cuisine in one location.
- 13. Residential Area (Towers & Villas): Officials and innovators from India and the MNC's operating innovation centers will reside in both towers and villas within the residential area.
- 14. Central Park: Recreation Facilities like Water Body, Gaming, Mini Disney & Film City.
- 15. WTE plant: SLIC concept on Green city where their won't be any discharge and will generate its Water, Electricity etc from its waste whether in terms of water & other waste. Solar panels to generate electricity. STP & ETP Plant for proper usage of water & Sewerage.
- 16. Solar Project: The Buildings will be solar paneled so whole city requirement will be looked after Solar & Waste which cut off emissions.

## Process and Stages of Innovation & Incubation Services

#### **Innovation Services**

- A. Automation: The SLIC will have an automation team proficient in industrial automation, mechatronic design, and robotic integration.
- B. Engineering Solutions: These will come with the support of an expert problem solving team with 500+ years of combined experience in research and development, prototyping, proof-of-concepts, feasibility studies, and design for manufacture.
- C. Non-Destructive Evaluation: On offer, will be qualified NDE inspections and testing to evaluate the integrity of structures, parts, components, and materials. In house Level III certified engineers will provide real-time support for testing, training, and qualification.
- D. 3D Scanning & Reverse Engineering: This is to enable interoperability between 3D scan data and CAD/CAM applications, providing solutions to fully characterize a part by determining material, external dimensions, internal dimensions, and more.
- E. Rapid Prototyping & Machining Services: The rapid prototyping and machining services will use the latest relevant technology to produce highly accurate and durable prototypes, minimizing manufacturing turn-around time without compromising precision or accuracy.

F. Technical support services: These services will provide immediate resolution to equipment related problems, software fixes, mechanical, electrical, instrumentation, communication and other support services to ensure zero downtime of equipment and systems in the SLIC.

#### **Process and Stages**

The SLIC will follow a 4-stage process to support innovation and incubation at various stages.

#### Stage 1: Research, Development & Design Thinking

To begin the creative process, relevant information and materials will be gathered, and sources of inspiration will be identified. Both internal and external information sources will be tapped and a data bank of information in various sectors will be created and stored. This is to assist the individuals who have innovative ideas to concentrate on thought processes and to deliver information to them on demand, enabling them to engage with ideas, and not to go out into the world to gather the necessary data, resources, materials, and expertise, which can be made available within the SLIC

### Stage 2: Incubation

During this stage, individuals will be encouraged to contemplate on the ideas and information gathered in stage 1. The individual will take the focus off the problem, allowing the mind to rest, while the unconscious mind engages in "combinatory play" - taking diverse ideas and influences and finding new ways to bring them together.

# Stage 3: Application

This is the stage when the real-life application for the project or product will be crystallized, and design is altered accordingly to suit the envisioned application. The application could be at less or great variance with the original thought ideation and may also create an altogether new idea for innovation.

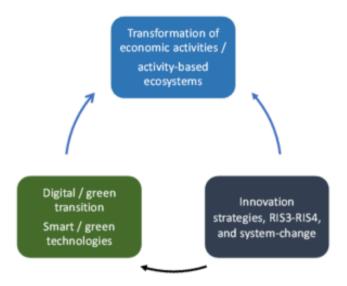
# Stage 4: Prototyping

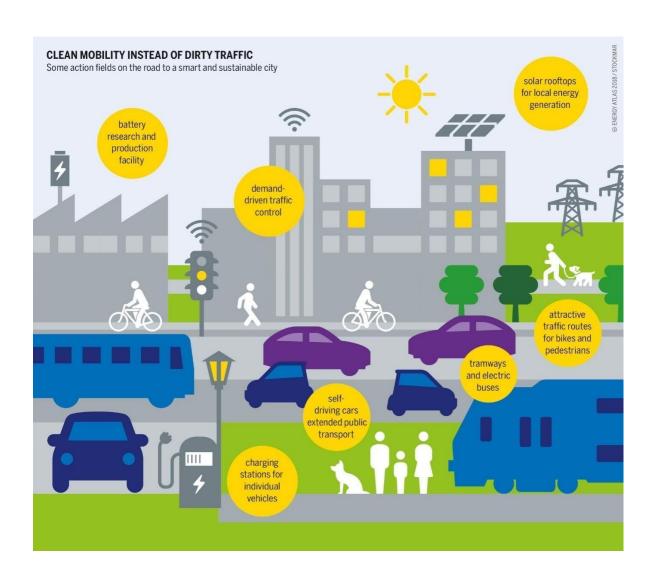
Following the application, the innovator is assisted with technical design and drawings, and a business plan is developed. Ideas and insights that arose in stage 3 will now be fleshed out and developed, with the inventor using critical thinking and aesthetic judgment skills to hone and refine the work and communicate its value to others.

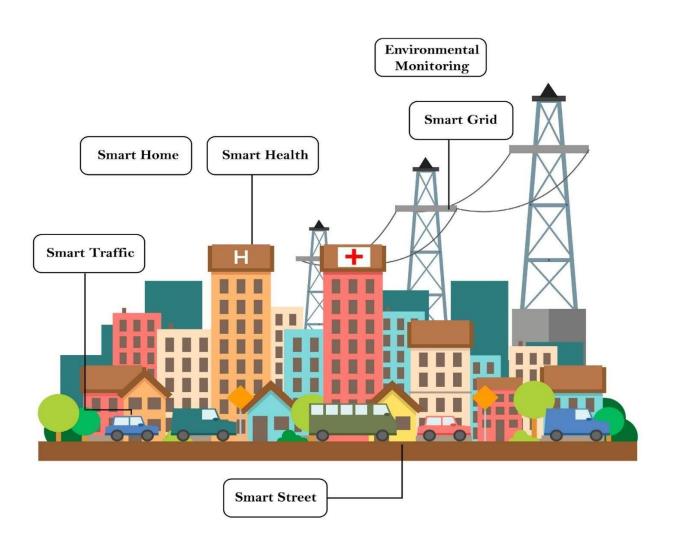
## **Infrastructure:**

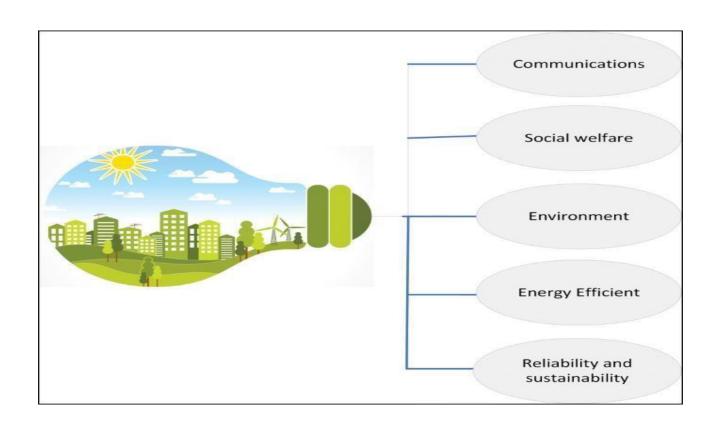
- A. Conference rooms and tinkering labs in different domains
- B. High speed internet and 5 G connectivity
- C. Relevant hardware and software
- D. Mentorship support
- E. Technical expertise (Domain, IPR, Inter-disciplinary, Finance and Management)
- F. Hostel facilities
- G. Dynamic office facilities
- H. Tailor-made access to business support
- I. Modern meeting & conference facilities
- J. Private investment opportunities
- K. Informal networking areas
- L. World-class connectivity and technology
- M. Collaborative business community

# N. Access to Academia and Research











SLIC Centre which comprises of innovation Towers &hub and Training Institute.

The Space Lunar Innovation Corridor (SLIC) fosters innovation, research, and entrepreneurial activities in technology-based areas. It provides a platform for start-ups by budding entrepreneurs to convert their innovative ideas into commercially viable products. It also provides services related to patenting and commercialization.

SLIC proposes to be a model innovation center and is designed to

- Promote innovative thinking and inventions
- Encouraging and creating entrepreneurship
- Researching and promoting sustainable technologies and finally  $\square$  Enhancing the local economies with industry and employment.
- Inspire curiosity, encourage experimentation, stimulate collaboration.

## Overall Objectives & Focus Areas

To create a global Industry 4.0/5.0 innovation hub and knowledge destination in SLIC, catering to

- Tech development and business processes under Industry 4.0
- Democratic education enhancing employability in Industry 5.0
- Creating a manufacturing (development) destination for gaming development and virtual reality using Industry 5.0

With these objectives the SLIC plans the following domains-

- A. Convergence of technology under Industry 5.0 and meta for education and societal solutions
- B. Research and Development of environmentally sustainable solutions (solar and transport decarbonization)
- C. Sustainable Agriculture tech and best practices