



RETHINK
VALIDATE
CULTIVATE

FUTURE READINESS

Ecoland Institute (ELI) offers custom programs and workshops enabling Future Readiness.

Closing the gaps: We guide our clients to bridge the gaps between the future and “hear and now” problems. ELI's *8-Dimensional Assessment Tool* enables the rapid identification of needs, challenges and necessary elements for practical outcomes. Our *Integration Framework* embeds adaptability and agility into responsiveness to ever changing circumstances.

Connecting the dots: We uncover interactions between and among critical systems to recognize patterns that work.

Positive Impacts: ELI's proven expertise, along with its unique tools, promotes practical solutions that are sustainable and repeatable.

- **Catalyst Program:** Assisting clients to reach their goal effectively
- **Future Readiness Workshops:** Develop internal catalysts

**Multi-dimensional
Assessments**

Success Patterns

**Critical Systems
Integration**

**Practical Repeatable
Outcomes**

**Sustainable
Prosperity**

ECOLAND INSTITUTE

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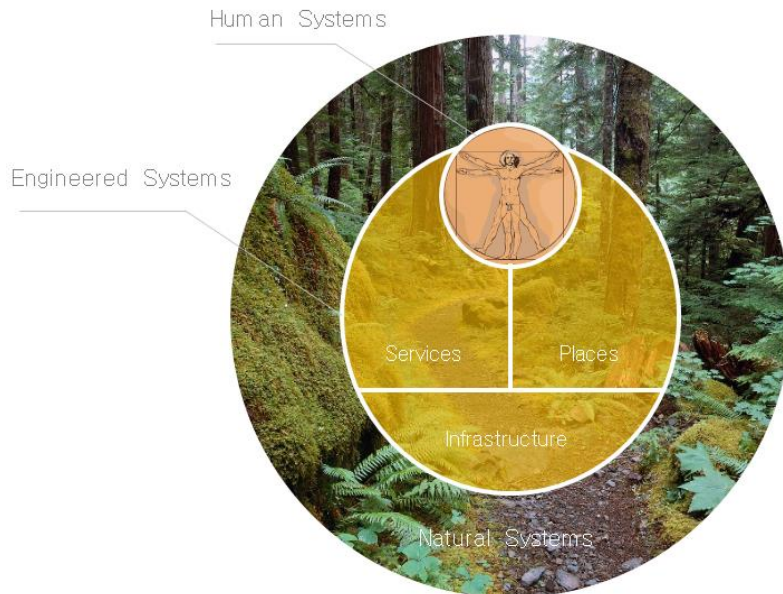
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Critical Systems Integration: Advancing Innovation

Critical systems provide the essentials of life, but they encompass far more than just the bare necessities for survival. Fresh water is of critical importance, but without the proper infrastructure and services, it would not be available for use. Critical systems address these aspects and others that are vital for overall well-being, fulfillment, and the healthy functioning of communities and the planet. Failure of Critical Systems can result in significant economic losses, physical damage or threats to human life.



Critical systems can be viewed as being primarily of three main classifications: nature, human, and technology.

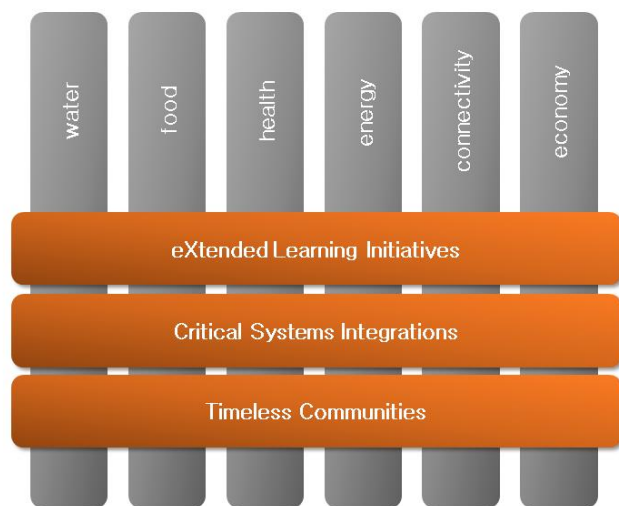
Natural Systems are those that can operate without any intervention from humans. Natural systems can provide us with valuable resources such as food, water and shelter, as well as innovative solutions through an enormous pool of genetic, biological and social intelligence. It is also the source of many passive technologies that are often overlooked or taken for granted. Gravity, for example, is a passive technology that can be used to transport goods or generate energy. The complexity, diversity and resilience of natural systems are invaluable characteristics from which we can learn. The beauty, power, and seeming effortless of these systems are a constant source of inspiration for innovation. Overall, Natural Systems are the foundation to all other systems.

Human Systems are those that help define us and that we help define. They make us who we are individually, in communities and as a society. Human *needs*, *wants* and *challenges* are the drivers for these systems. They are socially imbedded systems, including language and culture, impacting all of our life. Every aspect of life creates a unique cultural narrative and affects fulfillment, productivity and health. To create a positive human experience, it is important to consider these systems when planning for future development. Sometimes, instead of changing our wasteful behaviors, we falsely try to compensate them with technological solutions. Therefore we must rethink not only the built environment but also the societal constraints and behaviors which might impede a prosperous, creative, and socially sustainable future.

Technology is engineered by human intellect where innovation happens. Not all technology is digital, it may be simple irrigation, as large as the Eiffel tower, or as complex as the energy grids. The sphere of technology also can be viewed as primarily three classifications: *products* and *services*, *places* or the built-environment, and *infrastructure*. Services should be convenient for all and cater to a positive fulfilling human experience by enabling health and prosperity. Places must be comfortable, open to the public, aesthetically pleasing, and intelligently designed. Places where services are delivered. Infrastructure above all must be reliable, and built to endure and be adaptable for a rapidly changing future. Infrastructure supports services and places to appropriately function.

Importance of Critical Systems Integration

A crucial step for advancing innovation is to integrate Critical Systems. It is often convenient to approach these systems as though they are functioning independently. In reality, aspects of each Critical System are interacting internally and with other Critical Systems. Their environment and requirements are continually changing. Most of the systems' inefficiencies and vulnerabilities happen during internal and external interactions. To improve efficiency and avoid failure of Critical Systems, we must learn to view these systems holistically. In order to achieve the systems' effectiveness, new approaches are needed and tools developed in alignment with the desired outcome.



Systems Integration is the process of connecting the parts of the system into a functioning whole. Critical System Integration (CSI) provides us the framework for environmental, social and economic sustainability to create our goal - timeless communities. It recognizes the beautiful and intricate web that is a distillation of the patterns, processes and designs inspired by nature and extended by our intelligence. By integrating and balancing natural, human, and technological systems, we can begin to piece together the complex operations of a timeless community and learn to enable prosperous sustainability. Therefore, CSI skill is one of the most essential skills for effective future development.

Extended Learning Initiatives of ELI prepares the needed skills and Critical Systems Integrators for the 21st century. Ecoland Institute defines and studies this new field of CSI to create Timeless Communities.