

The resilience.io Platform

- open-source
- cloud-based and completely scalable
- regional platform
- gathers earth observation data
- open government and crowd-sourced economic, social and environmental data systems model
- practical user interfaces and visualisations
- supported by local universities
- gaming version for schools
- improving quality outcomes of overseas aid for city regions

Link inclusive human-well being / ecology / economics for the first time

- agent-based
- resource flow and spatial models
- cities, agriculture and forestry
- water, energy, food

Practical community collaboration in a “collaboratory”

- open access for community-led development
- real time model of human activity
- ‘smart’ city development / investment
- feedback loops
- human well-being
- health and productivity
- local air, water and soil quality
- food productivity

Integrated planning for all

- accelerated development

Financing progress towards post-2015 Sustainable Development Goals (SDGs)

Risk management

- linked to the ICES earth simulator
- future disaster risk scenarios
- communities, investments and assets
- climate change
- interdependence of infrastructure

[Watch our short film](#)



The Platform

The Ecological Sequestration Trust is developing **resilience.io**, an open-source, cloud-based and completely scalable regional platform. It enables communities to gather earth observation, open government and crowd-sourced economic, social and environmental data and put them into a systems model, with practical user interfaces and visualisations that can be supported by local universities. It will be made available to communities to use anywhere in the world by downloading from the internet. A gaming version is planned for schools.

Linking inclusive human well-being / ecology / economics for the first time

Backed by advanced agent-based, resource flow and spatial models for cities, agriculture and forestry, **resilience.io** enables communities to work collaboratively in understanding how their region works. It will enable them to test future change scenarios for human and ecological activity through integrated interventions and to see the economic impacts of them and to help find inclusive solutions; for example reducing pollution or closing resource loops or investing in new buildings and infrastructure accessible to all.

Practical community collaboration in a “collaboratory”

The user interfaces or “cockpits” will access a real time model of human activity for ‘smart’ city development investment. There will be feedback loops and information systems set up to enable communities to make ‘smart’ lifestyle decisions and learn from practice; for example the links between human well-being, health and productivity, local air, water and soil quality and food productivity which really work for their community.

Integrated planning for all

In any developing city-region, investment choices are complex and the need for an integrated approach has been recognised. Balancing investment required in towns and cities is a complex problem in the quest for a resilient economy.

Financing progress towards post-2015 Sustainable Development goals (SDGs)

The platform can be set up to enable progress towards a complex holistic set of regional SDGs to be monitored and achieved. Regional indicators can be monitored and every project can be procured using performance based contracting to deliver part of the progress. The governance and evidence base provided can be used to attract innovative sustainable finance at regional scale, that combines green growth, climate adaptation-mitigation and social impact through public private partnerships.

Risk management

The platform will enable communities to use climate data for practical decision making by linking through the [ICES](#) earth simulator, which will enable future disaster risk scenarios to be assessed for communities, investments and assets, taking account of climate change as a key part of resilience planning. This can include interdependencies of infrastructure.

Contact: peter.head@ecosequestertrust.org, resilience.io