01 – Introduction

"Where There Is No Engineer – Designing for Community Resilience" is a design initiative coordinated by the Development Technology in the Community (DTC) Research Group, Dublin Institute of Technology (DIT) and Engineers Without Borders (EWB) Ireland.

The programme is delivered in partnership with various development partners and Engineers Ireland. It provides participants with the opportunity to learn about design, teamwork and communication through real, inspiring, sustainable and cross-cultural development projects.

By participating in the programme, students and professionals will have the opportunity to design creative solutions to real life development projects. This initiative formed part of the DIT team submission which received the Inaugural Engineers Ireland Education Award Best in Class 2017.

www.wherethereisnoengineer.org

From Left: Dominic MacSorley, Concern, Sean O Hogain DTC/DIT, Gerry Tobin, Davies Ireland, Ms. Joan Burton T.D., Liam McCarton DTC/DIT.

Exploring the Relationship between People, Technology and The Environment

The design brief is based on a set of six global development themes;

- **Climate Resilient Infrastructure**
- **Self-Supply Water and Sanitation**
- **Community Participatory Health**
- **On and Off (Micro) Grid Energy Systems**
- **Food Security**
- **Applying Big Data in the Community**

Each theme explores the relationship between People, Technology and the Environment. The setting for this programme varies on an annual basis. The programme is open to students and professionals across the disciplines of engineering, architecture, urban planning, science, business, social science, arts, media etc. Organisations participating within other development challenges in Ireland and UK may also enter their submissions for consideration in this design initiative.

Each Institute may nominate up to four submissions for external review. The project can run over semester 1 or 2 depending on the course requirements. A professional design initiative will run parallel to the undergraduate programme whereby individual companies or consortiums will be invited to participate in teams to develop an innovative solution for the communities within the programme country selected. For professionals participating in the programme Continued Professional

Development (CPD) hours can be allocated for time spent on this project.

The "Where there is no Engineer" design initiative submission process closes on 1st May each year. Outstanding undergraduate teams, together with professional teams from each region will be invited to participate in the National Finals where their work is reviewed by a multidisciplinary panel of judges.

The National showcase event is held in June each year. There is an overall award sponsored by Davies Group Ireland. The Davies Award funds the winning team to travel to the country to implement their design concept with a local development partner.

There are four Innovation Awards sponsored by the ARUP Trust. These awards provide funding to teams to develop their concepts to prototype design stage with continued support from DIT / EWB.

A micro-irrigation project in Madowadi, northern Kenya is bringing a much needed alternative means of food production to the pastoralists. Here DarmiSora collects water from a pan built by CIFA, Concern's partner agency in the region. The water will be used to help irrigate the land on which she is now growing vegetables.

Source: Gideon Mendel, Concern, 2013