

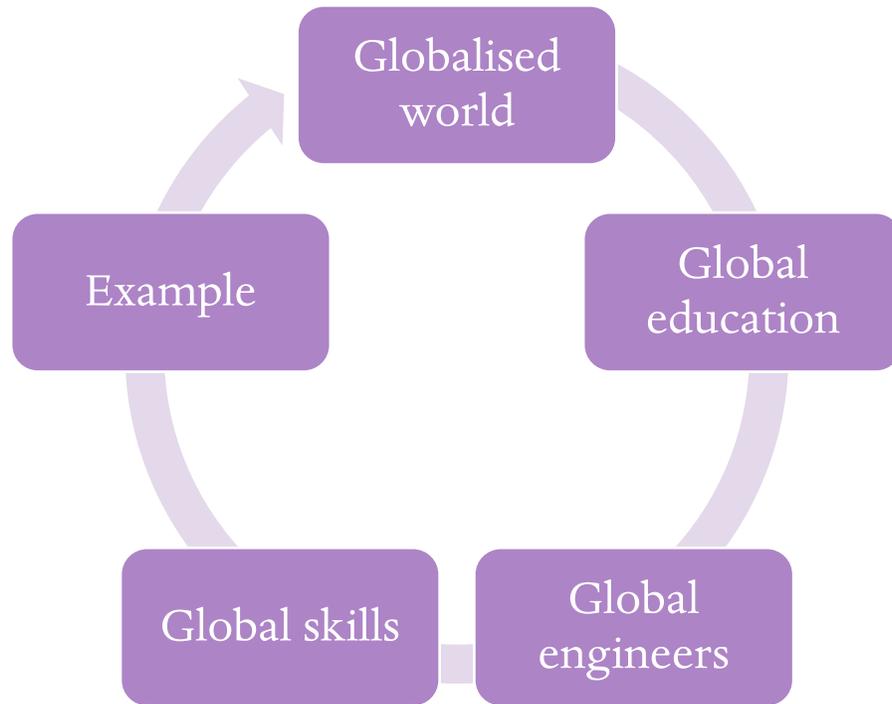


The importance of Global Education in engineering projects

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Outline



Globalised world

- The unprecedented nature of global challenges (and opportunities).
- The increasing speed of change.
- The interdependency and ecodependency.
- The high degree of complexity and uncertainty especially in global systems: the climate or economics.
- The key role of science, engineering, technology and innovation (SETI) driving forward and adapting to change.



Global Education

The Dublin declaration: Declaration on Global Education to 2050 (GENE: Global Education Network Europe)

Global Education (GE) is education that enables people to **reflect critically on the world and their place in it**; to open their eyes, hearts and minds to the reality of the world at local and global level.



Global Education

The Dublin declaration: Declaration on Global Education to 2050 (GENE: Global Education Network Europe)

GE empowers people **to understand, imagine, hope and act** to bring about a world of social and climate justice, peace, solidarity, equity and equality, planetary sustainability, and international understanding.



Global Engineer

The Global Engineer (DERC, Engineers against poverty)

The future of engineering is being framed by **global forces** which transcend national boundaries such as the impacts of globalisation, rapid technology advances, climate change and inequality.



Global Engineer

The Global Engineer (DERC, Engineers against poverty)

Engineering and technology has unique importance in addressing **global challenges**, delivering environmental sustainability, international poverty reduction and economic growth.

To meet all of our basic needs: water, sanitation, food security, shelter, energy, transport.



Global skills: engineers

- To take a broader perspective: across countries.
- What we do in developing countries impact upon ourselves.
- There is more than one perspective and approach, challenging stereotypes, coping with uncertainty.
- Understanding the local context of development.
- The impact of globalisation, finite resources in the world.
- Mitigating and adapting to climate change, potential role of different technologies.



Agriculture: Gill Nets in Bangladesh

(<https://worldfishcenter.org/pages/gill-net/>)

Problem: Overcome food poverty: Aquaculture for Income and Nutrition (WorldFish led the USAID-funded Project).

Challenge: Gender-related cultural and religious expectations prohibit women from harvesting fish even from their own ponds.

Solution: WorldFish started to introduce mola gill nets in the poorest parts of Bangladesh. Gill nets are fishing nets that are lightweight enough for women to cast from the bank of the pond—without getting into the water.

Method: Co-creation and Participatory Research. Project researchers compared five nets with different mesh sizes to identify: 1) which nets performed best for catching small fish; and 2) which nets best met women's needs and preferences. They found that gill nets with 1.7 cm mesh were women's top choice.



Local service provider conducting training.

