Anticipating tomorrow: the future of the European construction industry

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Recent years have been marked by rapid and quickening change in Western Europe and the rest of the world, which is altering the way in which infrastructure and manufacturing assets are produced and maintained. In response to these pressures, the ECI established the Industry Futures Task Force to improve the European construction industry’s understanding of where it may be in 20 years’ time. The Task Force has developed this suite of future scenarios for the European construction industry, and an action plan to help the ECI and its member companies adapt to the challenges ahead.
The axes and the scenarios they produce

The horizontal axis represents a range of future possibilities for the availability of energy. At one extreme is Energy Scarcity, where energy becomes less available than we expect today. As the other is Stabilised Supply. Here, energy is readily available. This could happen because new reserves are discovered, or through technological advances in the supply and use of energy.

The vertical axis represents the balance in co-operation ranging from Interdependent - between and within supply chains, international relationships and society as a whole.

These two variables lead us to four scenarios which illustrate what the European construction industry could look like 20 years from now. These scenarios were developed by extrapolating a range of today’s key issues for the European construction industry, for the ECI, and for its member organisations.

They range from a world where energy is scarce, unreliable technology is widely used and it is culturally unacceptable to waste energy, which we call Tough love, to one with stabilised energy supply in which individual self-interest takes precedence over the common good, which we term Fence Me In. The timelines for each scenario depict a sequence of possible events which lead from the present day to the year 2030.

Tough love

Here energy is scarce and comes from nuclear fission and fusion or from dwindling sources. People are energy-sensitive, energy means are unacceptable, and homes are smear.

In construction, standardisation has encouraged prefabrication in the absence of creativity. Planning takes account of embodied energy and energy in use. Rehabilitation is focussed on new build. Travel tends to mean walking or public transport.

Energy is scarce, electricity is for homes, not transport. Industry is working to correct, low housing is concentrated in high-density urban areas, and health and education services are close together.

Happy days

In this world, energy is abundant and its price is predictable. Construction is an economically high-tech, high-wage industry. A global database of contractors and clients provides open information on their quality of service. Technology has made virtual meetings normal, although possibility of teleporting matter to remote locations no longer seems like science fiction.

People, companies and countries value their autonomy, self-interest and quick profit motivates individuals and firms.

Energy is abundant, electricity is for transport. Industry is working to correct, low housing is scattered in high-density urban areas, and health and education services are far apart.

Running on empty

In 2030, energy is scarce and society is award-winning and protective of its knowledge, energy and renewable resources. Houses and communities only collaborate if necessary in an unequal world, some live in isolated wealth which have knowledge or resources but must share.

Construction is unadventurous and innovation is low. Present are cut out of the contract and clients are hostile. Safety is a priority, partly because of severe limits on energy resources. Defence is the business to be in; contracting up to international organisations and international trust elsewhere.

Fence me in

People, companies and countries value their autonomy, self-interest and quick profit motivate individuals and firms.

Energy scarcity is total; energy is for transport. Industry is working to correct, low housing is scattered in high-density urban areas, and health and education services are far apart.

The full text of the European Construction Industry Task Force report can be found on the ECI website: www.eci-online.org
Next steps towards the vision

For the ECI:
- Support the Industry Futures Task Force, and especially the new task forces on people and on collaboration
- Run annual award schemes to recognise sustainability, collaboration, innovation, people and natural resources
- Work to expand membership, and its engagement in best practice
- Influence regulation
- Collaborate with other organisations to develop and promote best practice
- Encourage members’ innovation
- Drive stewardship, corporate social responsibility, ethics and sustainability
- Help members to use natural resources more efficiently and protect the environment
- Define sustainable best practice for the design of the built environment and manufacturing plant
- Encourage member companies to get involved with renewable energy.

For Members of the ECI and those associated with the construction industry:
- Engage with the ECI and its task forces
- Collaborate along the supply chain to encourage innovation and best practice
- Increase R&D and take controlled risks to embrace new techniques
- Recognise the value of people
- Develop and reward them to attract and retain excellence
- Increase links with schools, universities and the supply chain to share and use best practice
- Implement local practices to improve environmental performance and encourage sustainable construction and use
- Enter the ECI award scheme.

The European Construction Institute (ECI) is Europe’s only transnational network of construction excellence. It brings together many of the most innovative clients, contractors, specialists and support organisations in Europe to develop and share knowledge aimed at improving the entire construction supply chain.

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