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Identify the competences needed for modern day consulting engineering practice and suggest ways of acquiring such competences

## Feedback:

#### Identified Competences

- » Technical competence
- » General Engineering Skills
- » Marketing Skills Acquiring and keeping clients
- » Financial Management
- » Project and quality management skills

#### Suggestions on Ways

- » Universities to teach technical expertise and exposure to management, financial and legislative skills
- » Engineers need to know that they can be supermen (Compare with group 4)
- » Companies to coach and mentor
- » MAs to promote schools of engineering
- » FIDIC to provide overview and guidelines and to regulate





Beyond the university degree and professional registration, there is no other standard method of measuring consulting engineering competences. Should FIDIC embark on a certification process to fill this gap? How should it be structured?

## Feedback:

- » Continuing education should be responsibility of each country MA
- » Certification considered a longer term objective. Perhaps registration of attendance at courses should be a starting point
- » FIDIC could provide body of knowledge Scope to be broad
- » FIDIC to provide guidelines on structure; e.g. number of levels and content and quality at each level
- » Should not be about technical competence but professional and business practice
- Should not be limited to engineers but include all players in the construction industry
- » Need for strong brand to encourage participation FIDIC very relevant





Consultants from developing countries complain that they are caught in the experience trap. They do not get choice projects because they do not have experience. They do not have experience because they cannot get the job. What is the way out of this dilemma?

### Feedback:

#### Skills Transfer models:

- Partnering between firms on a long term basis for all aspects of business development
- » Collaboration on project by project basis
- » International firms to set up in countries and use local staff mainly
- » Off-shoring- foreign firms to carry out some design works abroad
- » Need to introduce local firms into all elements of projects in all models
- » Policy drives the models
- » Government regulations for developing countries
- » World Bank to specify target percentage for local firms
- » Regulation drives the policy
- » FIDIC to provide guidance on the above





The challenges of recruiting and retaining competent staff in consulting engineering have been reported by several firms. Identify the key issues involved and how training and work experience can improve the situation

Feedback:

- » Recruitment not about demand and supply but protection of intellectual capital
- » Support QBS to ensure adequate remuneration
- » Mentoring should be built into procurement process
- » HR Training support guidance; e.g. separate technical and managerial career paths
- » Succession Plan
- » Engineering firms to seek expert support and not assume superman status