The Engineering Exchange: widening access to engineering expertise in London

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UCL Engineering Exchange
Widening access to engineering

• Rationale
• Projects
• Forums
• Training
• Evaluation and reflection
Engineering Exchange

- Science shop
- Social justice by other means
- Balancing engagement with engineering expertise
- Two way engagement
- Pragmatic framing of purpose and activities within engineering discourse
Managing engagement

- Local London community groups
- Match making
  - Responsive
  - Purposeful
- Engineering professionalism
- Managing expectations
- Agreeing the brief
- Closing out projects
The numbers

• 2 years
• £132,000
• 21 partner organisations
• 144 members of the public
• 43 UCL staff, 27 students
• 26 CPD learners
• 21 projects initiated, 7 complete
Projects

- Canal transport
- Air pollution
- Delivery logistics
- Domestic heating efficiency
- Smart metering
Refurbish or demolish?

- Just Space and the London Tenants Federation
- London Action Research on Regeneration Group

A good solid piece of work with a run-through and very clear and concrete evidence of results.
Community forums

• London Sustainability Exchange

• Facilitate new projects on specific topics
  – Air pollution and data
  – Healthy aging and wellbeing
  – Smart, sustainable London
Best thing about the event? Getting my project to actually happen. I’ve gained contacts and support to enable this.
Training for engineers

- Revenue
- Delivered with community partners
- Engineering and communities in decision making
- Technology as community development
- Universities and citizen science
- Handbook in preparation
Training feedback

The overall themes and messages are very transferable to our work. Reminds us that we work for society!

It was worthwhile as I have thought about problems in my current research differently.
Future plans

• Pro-bono engineering networks
  – Membership model
  – Consultancies, universities, individuals

• Undergraduate and postgraduate curriculum

• Expanded training programme

• Diversity and equality within projects
Widening access to engineering

- ‘Social justice’ pragmatically positioned within engineering discourse
- Balancing access and engagement with engineering