# 4<sup>th</sup> International CDIO Conference ACTIVE ENGINEERING EDUCATION

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Title Future Initiatives and Directions for CDIO

### **Authors and Affiliations**

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### Type of Presentation: (check one)

(15-30	min)
	15-30

- \_\_\_\_\_ poster session (60 min)
- \_\_\_\_\_ advanced workshop (45 min)

_X_	_ round-table session (60 min)
	_ advanced workshop (90 min)

**Short Description:** A number of questions concerning future directions for CDIO and areas that should receive more attention will be discussed in a round table format. Every effort will be made to involve all participants in the discussion. A series of recommendations will be developed based on the discussion.

### Relevance to the Conference Theme, Strands, and/or CDIO Initiative

Please indicate (tick) the strand that the presentation most closely relates to.

Х	Application of CDIO to a wide range of disciplines	Curriculum and programme design
	The involvement of industry	Technology-enhanced learning
Х	Development of professional	Assessment of professional
	competences	competences
Х	Design-implement experiences	Facilitating change in engineering education
	Supporting sciences and CDIO	Evaluating the impact of CDIO Programs
	Student involvement	Active and experiential learning

### Abstract (maximum one A4 sheet)

Questions concerning future directions for CDIO and areas that possibly should receive more attention by CDIO will be discussed. Discussion will be initiated in the following areas:

- 1. Should the CDIO approach be used in graduate programs and, if so, how should it be applied?
- 2. Should more attention be given to the implementation of integrated learning and to how this can be accomplished?
- 3. Should there be an increased emphasis on environmental and ethical considerations in CDIO programs and, if so, how should this be accomplished?
- 4. Does sufficient discussion of how to encourage long term commitment to CDIO take place? Is there a need for an advanced workshop in this area?
- 5. Is there a role for CDIO in promoting the study of engineering, i.e., in the recruitment of engineering students?
- 6. Is there need for more discussion of laboratory and measurement studies in a CDIO program and should an advanced workshop be developed in this area?
- 7. Does the CDIO literature contain too much jargon and is it possible that this alienates some readers who are only moderately committed to CDIO?
- 8. Is there still a need to develop a data base of Design-Build projects to help new CDIO members improve their programs in this area?
- 9. Should guidelines for the teaching of Engineering Science courses in a CDIO program be developed? Is an advanced workshop in this area needed?
- 10. Is there a place for distance and e-learning courses in a CDIO program?
- 11. Are there other areas of concern?

Many of these areas have of course been discussed at CDIO meetings but it appears that they warrant more attention. Based on the discussion, a series of recommendations will be developed and reported on.

Ways of ensuring that CDIO continues to be relevant and important to all collaborators need full and open discussion. This round-table discussion will hopefully help to identify any problems that are developing and to identify areas to which inadequate attention is presently given.

## Active presentation techniques

Describe one or two ways in which you intend to engage the audience (for example, paired discussion, personal response using clickers or flash cards ...). This section is a decisive factor in the acceptance of your proposal and the amount of time you will be allocated.

Active presentation technique(s) to be used: Free and open discussion of all aspects of the problem areas will be strongly encouraged.

## Facilities/equipment required (tick all those appropriate) - not applicable

Computer projector (provided in all locations) Overhead projector Flip charts and pens Clickers (personal response system) Coloured flash cards Post-it notes Other (please describe)

Send all proposals via e-mail as MS Word or pdf files to jgaywood@liv.ac.uk on or before December 7<sup>th</sup> 2007