



GUIDANCE ON INDUSTRIAL CONTACT

The importance that JBM places on effective industrial contact is set out as follows in its three Degree Guidelines – MEng, BEng(Hons) and BSc.

There should be strong, viable and visible links between departments and the profession. It is strongly recommended that local practising engineers should become involved with the education of students by, for example, giving appropriate lectures, internal talks, assisting with design projects, acting as industrial tutors, and enabling students to make site visits. Regular site visits should be seen as an important element within the programme. Industrial liaison groups should be established and should meet regularly to identify how local and national needs for graduate employment might influence programmes.

Since considerable additional resources can be mobilised in this way, the JBM believes that departments should be encouraged to formally record the contributions industry makes to degree programmes.

There is a real need to provide students with information on what industry does, how it goes about its business and what they should expect when ultimately they join the profession. There are two reasons for this. The first is to help prepare the student for work, now known as the 'employability' factor in the universities and the second is to help motivate students to encourage them to enter the profession.

The JBM does not wish to be prescriptive about how Schools/Departments establish and maintain their links with industry. Many Schools/Departments have established Industrial Advisory Panels (IAP) (or similar) and these have proved to be very beneficial. In a few cases, however, advisory boards have not been very effective and exist in name only. *(Please see Annex A for feedback from the ICE/IStructE/ACED meeting held on 10 April 2008 for some ideas on the roles and responsibilities of an IAP.)*

Experience shows that effective collaboration with local and regional industry can:

- (a) Provide advice on strategic planning and development of the civil engineering discipline.
- (b) Provide guidance on research priorities.
- (c) Provide useful feedback on meeting the requirements of the Research Excellence Framework.
- (d) Advise the School/Department on marketing.
- (e) Contribute material for publicity brochures and websites.

- (f) Help the School/Department to formulate or revise its programme aims and objectives.
- (g) Provide a constructive check on the performance of the School/Department in achieving its aims and objectives.
- (h) Provide teaching material to be used in design and project work.
- (i) Secure industrial tutors and leaders for design and project work.
- (j) Advise on financial matters.
- (k) Provide advice on staffing and other resource issues.
- (l) Provide advice on accreditation issues and assist the JBM and the School/Department during accreditation visits.
- (m) Help to mentor students.
- (n) Facilitate site visits.
- (o) Facilitate industrial secondments for academic staff.
- (p) Facilitate industrial placements for students (for both summer and/or year out placements).
- (q) Provide industrial mentoring for academic staff seeking a professional qualification.
- (r) Industry has a global vision that should be addressed in the classroom.

The JBM wishes to encourage Schools/Departments to establish and maintain strong links with the construction industry and, as part of the accreditation process, will be seeking evidence that such links are in place and that they are effective. *(Please see Annex B for examples of how this evidence can be recorded and information that should be included with a JBM accreditation submission.)*

JBM would wish to encourage local institution representation on an Industrial Advisory Board to facilitate links with regional institution committees and activities. This goes far beyond encouraging student membership within a department.

Such institution links may, for example, be expected to assist staff taking the academic routes to institution membership. JBM is concerned that departments should actively seek to encourage institution membership among their staff as an indication of commitment to the profession that

many of their students will enter. The institutions represented on the JBM would encourage the existence of good local and regional links with all Schools and Departments and the opportunities they can provide for students and staff to participate in and gain a wider appreciation and experience of the scope of professional life.

ICE/StructE/ACED Meeting 10th April 2008**Feedback from Breakout Groups 3 and 4 looking at the role of Industrial Advisory Panels or their equivalent**

Groups were asked to consider the following questions

Do IAPs have a role to play?

Are there any alternatives to be considered?

What should the composition of IAPs be?

What should the terms of reference for IAPs include?

Do IAPs have a role to play?

It was agreed that they have a very important role to play.

In order to be effective they have to be active.

All universities have them in some form or another.

They are one of the many links that universities have with industry

They are working well in a number of establishments.

In many cases the IAP members often wish to do more than just attending meetings.

They can give suggestions for guest lecturers and Design projects

There should be a two way transfer of information between industry and academia.

Are there any alternatives to be considered?

It was suggested that in some case it may be appropriate to operate a two-tier system with one group looking at strategy and one more active and involved in the mentoring of students and staff. They are just one element of the matrix of links that universities have with industry.

What should the composition of IAPs be?

The Chairman should be from industry.

The composition should be wide ranging in age and discipline and reflect the balance of the civil engineering industry (contractors, consultants, local authorities, institution representatives, etc).

Currently membership of the IAPs tends to be drawn from personal contacts.

Some recent graduates should be on the Panel.

The IAP should be specific to the area of the degree courses they are looking at i.e. the civil engineering IAP should be separate to the mechanical engineering IAP.

The majority of the Panel should be from industry.

Length of service should be limited.

What should the terms of reference for IAPs include?

The IAB meeting should take place quarterly if looking at arranging site visits, reviewers for student project work and guest lecturers but if they are covering strategic issues then twice a year would be sufficient.

Guidance on the TOR and items to be considered at meetings should come from the industrial partners.

They should have a strategic role and sign off any revisions to the curriculum content.

They can also provide advice to the senior management team at the University.

Annex B**ICE/IStructE/ACED Meeting 10th April 2008****Feedback from Breakout Groups 5 and 6 looking at how Industry contributes to degree programmes and how contact can be expanded**

Groups were asked to consider the following questions:

What forms of industrial engagement exist?

What evidence should be produced to demonstrate that engagement exists?

How can the impact of the engagement be assessed?

What forms of industrial engagement exist?

The examples given were:

- Part-time students,
- Sponsorship and bursaries (for courses and students),
- Placements,
- Industrial mentors/students/Professors,
- Industrial Advisory Board,
- Graduate and student groups,
- Personal contacts,
- Design project topics,
- Student prizes,
- Sponsoring of equipment,
- Engineering Doctorates,
- Knowledge Transfer Partnerships,
- Foundation Degrees,
- Careers fair,
- Recruitment talks,
- Case studies,
- Site visits,
- Industrial external examiners.

What evidence should be produced to demonstrate that engagement exists?

It was agreed that there could be a variety of records and registers (which may be global records), amongst other things, kept as proof of industrial engagement. The following were suggested:

- An employer register detailing which employers the University works with;
- A record of meetings, for example, an attendance register or posters used to inform students of meetings;
- CPD to show personal contacts;
- Students' PDP files, portfolios and theses;
- Physical items, such as equipment;
- The JBM submission document from the University;
- Terms of Reference from Industrial Advisory Boards;
- Teaching materials, for example, case studies in various formats, especially from contractors;

It was suggested that the evidence may differ, depending on whether it is aimed at Government or the JBM.

The groups agreed that industrial partners worldwide can influence engagement in the UK.

How can the impact of the engagement be assessed during an accreditation visit?

It was suggested that the JBM should put in place benchmarks in order to be able to measure the impact. Examples are as follows: -

Feedback from graduates and employers;

Local branches of Institutions and the IAP can be asked about graduates' employability;

Universities should maintain data that records the proportion of students employed in vacation engineering work and the proportion of graduates in engineering work should be recorded so that key performance data can be monitored;

The level of support, both in kind and in money could be used to gauge the impact;

Involvement of industry in the Curriculum development or review.