

The Benefits of International Recognition to the Engineering Profession in Ireland

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International Associations

International Engineering Alliance

- Washington Accord - Chartered Engineer
- Sydney Accord - Engineering Technologist
- Dublin Accord - Engineering Technician

ENAAEE

- EUR-ACE - First Cycle
- Second Cycle

Washington Accord (1)

“Accreditation of engineering academic programmes is a key foundation for the practice of engineering at a professional level in each of the countries covered by the accord”

Founded in 1989 - 6 countries

Currently 14 full members and 6 provisional members

The Washington Accord agreement states –

“ Accreditation criteria, policies and procedures have been verified as comparable”

Washington Accord (2)

The Washington Accord is an independent agreement for -

- Mutual recognition of accredited engineering programmes
- Providing a benchmarking standard for engineering education

(The Washington Accord graduate attributes represent the generally agreed reference for accredited programmes)

- Benchmarking of accreditation policies and procedures

Washington Accord (3)

Operates on the principle of substantial equivalence rather than a single set of criteria

- Decision by one signatory acceptable to all other signatories

Signatories identify and encourage the implementation of best practice for the academic preparation of engineers by

- Mutual monitoring
- Regular communications
- Sharing of information on accreditation criteria, systems, procedures, manuals, publications, etc.

Ireland – some characteristics

- Small country (population ~ 4.5 million)
- Agricultural Background
- Industrial Development came more recently
- Tradition of Emigration
- Education Valued
- Open Economy

Beneficiaries of Ireland's membership of International Engineering Alliances



- Accreditation Body (Engineers Ireland)
- Graduates and Students
- Educational System
- Irish Industry

Benefits – Engineers Ireland (1) (Irish Professional Engineers Institution)

Founding Member (1989) of
Washington, Sydney and Dublin Accords

Member of EUR-ACE project team

Founding Member of ENAEE

(One of the first group to be authorised to
award the EUR-ACE label)

Benefits – Engineers Ireland (2)

- Certification of the quality of the accreditation agency
- International recognition
- Ensures the highest standards of professionalism and competence in the engineering profession as judged by peers
- Enhances the status of the Institution by adding value for Universities, students and employers
- Membership fosters international mobility of engineering graduates and students through international cooperation

Benefits – Engineers Ireland (3)

- Access to international expertise and developments
- Permits benchmarking against international standards
- Keeps both the accreditation process and accreditation criteria up-to-date
- Identifies and encourages best practice through mutual monitoring and information exchange
- Keeps the Institution at the forefront of international developments

Benefits – Engineers Ireland (4) -example

New Accreditation Criteria (2003)

<u>Old</u>		<u>New</u>
Teaching	→	Learning
Inputs	→	Outputs
Covering material	→	Programme Outcomes
Syllabus	→	Learning Outcomes
Content	→	Programme Areas
Examination	→	Assessment

The engineering discipline played a major role when the Irish educational system was adopting an outcome based educational system

Benefits – Graduates (1)

- International recognition of their degrees as meeting professional standards
- Verifies their competence and professionalism
- Increases their confidence
- Makes them more attractive to new employers and clients and helps their organisation gain new business
- Maximises career opportunities both at home and abroad
- Readily facilitates them to travel abroad for experience

Benefits – Graduates (2)

- Facilitates applications to higher degree programmes at HEIs in other countries
- Enables graduates to become professional or chartered engineers in other countries
- Facilitates the movement of graduates for other countries into Ireland
- Facilitates the application from graduates from other countries to Irish HEIs

(Quality of graduates from other countries can be readily evaluated and verified)

Benefits – Educational System (1)

- Adds status through international recognition of their programmes
- Additional certification of the quality of their education
- Enhances focus on engineering education
- Programmes are required to meet specific engineering needs (engineering analysis, design, practice, investigations) in addition to the normal education criteria
- Helps benchmark Irish engineering programmes against those in other countries

(International Peer Recognition)

Benefits – Educational System (2)


- Helps student recruitment – students can get international recognition (and label) as well as their degree
- Incentive for students to select engineering as a career
- Facilitates student mobility and exchange
- Eases evaluation of non Irish students and graduates who wish to undertake further study in Ireland

Benefits – Irish Industry (1)

The quality and international recognition of Irish graduates has been for many years a major selling point by the Irish Industrial Development Authority (IDA), resulting in a large number of multinational companies setting up in Ireland.

- Provides ready measure of the capabilities and competences of graduates
- Graduates can transfer readily to the parent company or to another of the company's locations

Benefits – Irish Industry (2)

- Provides quality assurance to employers and clients of the professional ability of graduates
 - Helps Irish based industry compete abroad
 - Increases confidence of the workforce
 - Helps indigenous industry develop in Ireland
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Conclusions

Membership of International Associations and international recognition of Irish engineering degrees has and continues to be of significant benefit to

- The Professional Engineering Institution
- Engineering Graduates
- HEIs
- Industry

in **IRELAND**