Article

The Importance of Accreditation and, Research and Development – Developing Staff and Supporting Industry and Commerce

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Accreditations

C4FF seek to offer maximum opportunities to its students. If our programmes at C4FF are accredited by professional chartered institutions our students will enjoy a greater degree of international recognition and will be in a more opportune position to seek employment abroad.

It was often the case that within an organisation, quality assurance (QA) is a system that ensures that quality control is in place and is working effectively. Therefore, this view clearly sees quality control (QC) as part and parcel of quality assurance and the core element of it. Such a definition is somehow different from the EN 29000 and ISO 9000 stated and standard definitions which distinguish QA from QC. At C4FF (Centre for Factories of the Future), the term quality is assured and safeguarded through Quality Control.

It is also the case that higher education institutions (HEIs) are expected to have processes external to the organisation, which check periodically the effectiveness of their internal systems of quality assurance and control. These external evaluation processes in higher education in the Western world are a means to check the quality of teaching and research in HEIs, either through the reviews by external examiners/evaluators/assessors/verifiers and/or through Accreditation by Professional Body (APB).

The term accreditation should not be confused with the "accreditation process (AP)" used by professional institutions which is different. The "AP" is an external audit carried out by a professional institution to ensure a programme of study (mainly degree and technician programmes) satisfies the profession's academic and vocational requirements for a given designation i.e. Chartered Accountant or Chartered Engineer. For instance, the engineering graduates who complete an accredited degree programme would, subject to satisfying other requirements, use the designation CEng after their names.

A comparative study (IEE Report 1998) clearly indicated that the UK system of accreditation practised by professional institutions is the most comprehensive system in the world, and this system is adopted by many countries. It is pertinent to note that the USA, the UK, Canada and many other countries accept each others' accreditation through an agreement known as the Washington Accord. (IEE Accreditation Report, Visit by the chairman, April 1998).

C4FF is of the view that to maintain the quality of its teaching and research every academic unit including its Maritime Education Partnership Centre (MarEdu) has put in place a system for external evaluation of their teaching as well as their research. In parallel it is expected that each academic unit has developed a means to benchmark itself with the leading institutions

running similar programmes and services and measures are in place to ascertain C4FF is in forefront of developments in its teaching and research subject areas.

These measures are regularly reviewed to ensure the intended accountability for meeting the expected high specifications of higher education services at the MarEdu Partnership associated institutes and promote their continuous improvement.

In short to medium term, all academic units in C4FF will put in place an AP and seek accreditation from a chartered professional body (APB) and appoint external examiners/evaluators to monitor the specifications set/agreed. In some cases, pathways will be created to ensure compliance with well-known and leading awarding bodies and licensing authorities with international recognition.

Research and Development

C4FF's MarEdu is an European Partnership for Maritime Education, Research and Innovation. It has the largest number of EU funded project in Europe. Some of these programmes have sponsored students to study abroad and obtain degrees, higher degrees and ship officer qualifications recognised worldwide.

Research is in fact a way forward; looking at what is already being done well and should therefore be further developed or supported; and what is being done not well enough, or badly, and therefore needs to be changed, stopped, or replaced by something new. It is also to create new things.

Unfortunately in some countries there is so much emphasis on social, technical and scientific papers for publications in cited journals that universities, and their funders, often forget that a university is a universe with all sorts of small and large stars, some far, some near, some shinning and some with litter shine or any vigour.

A university should be a **centre of excellence in what it teaches** and to do this it must develop all staff, young and the more experienced. It must work and support industry and commerce, for which it is preparing the young people for it.

It has to be realised that the interests which business has in wishing to establish or improve links with academia are different from those of the academia, and may not always be compatible. The educationalists can aspire to be altruistic; business people can only afford to be altruistic when they have made more than enough money for the maintenance and development of their businesses. This is not a moral judgement – it is a pragmatic one.

Academia needs the industry to support it in the development of its programmes so that they can identify and respond to the needs of industry and commerce. It needs industry to seek funds to progressively develop its laboratories, and it needs industry to develop its staff members.

Industry needs academia to improve the quality of its employees, present and future; it needs academia for technological progress useful to business, and to better management of

business; it needs academia for the formation of its future customers, and so of demands for its products and services.

There are three types of research, i) **near market** (short term) which is of particularly interest to business; ii) **strategic**, which is of interest to larger and more established businesses; and iii) **basic** (or long term) which is of interest to businesses in general to secure their long term sustainability and survival. A good university should promote all three types through a well-managed process of working with industries related to the subjects it teaches.

The research carried out by the MarEdu Partnership associated institutes, therefore, is an effective means of making new discoveries; underpinning further and higher education programmes, developing and motivating staff, establishing working relationship with industry and commerce and, developing independent learning while preparing students for the future. They are also intended to create wealth and jobs, and serve the community to become more stable and accommodating. Students should learn about self-learning early in their studies and in the latter part of their programmes should be introduced to research and scientific methods for seeking knowledge and making sound judgement. The students must also realise the importance of preparing themselves for the world of work. All students should be introduced to development techniques viz., how products and services are developed and the processes involved.

One good example of Accreditation underpinned by research and development activities at TUDEV/C4FF is the Leonardo TRAIN 4Cs Programme which will be continued and offered to both C4FF's degree students and HND cadets.

C4FF's MET programmes and pathways have been validated through a series of EU funded mobility programme called TRAINS 4Cs. Through this mobility programme many cadets continued their degree studies in universities in the UK and USA and and/or registered on the UK's sea training diploma programmes (NVQs and SVQs) and sought to obtain the UK's Maritime Coastguard Agency's (MCA) Notice of Eligibility (NoE). In the latest programme concluded in February 2013, one cadet obtained the MCA's officer of watch certificate and MCA's Certificate of Competency (CoC) at the first attempt. There were 20 cadets in the UK recently seeking either MCA's NoEs and/or preparing for their MCA CoC examinations to obtain the UK's Officer-Of-Watch (OOW) certificate; all 16 received their NoEs. There were also 9 for the UK degree (all successful) and one seeking an MSc degree and four MPhil/PhDs.

The C4FF has also supported the ERASMUS mobility programme - **ERASMUS Mobility** - 2012-1-TR1-ERA02-36736, Student and Teaching Staff Mobility & Work Placement