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Professionalism Pays: Industry Associations and Continuing Professional Development for the Waste Management Sector

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1. Introduction

Some key premises for understanding the development of occupational competence and attachment are how individuals come to identify with that occupation and what support provisions (including qualifications and continuing professional development) are made accessible in developing both their occupational capacities and sense of self as a practitioner or professional within the sector. Together, these comprise key bases for the formation of occupational competence and the premises for individuals association with and learning for particular occupations, such as waste management. Yet, such bases are not consistently afforded across occupations, with some enjoying greater esteem and development opportunities than others, and also differentiations in the kinds of educational provisions and sector support being afforded to offer engagement and learning.

This chapter forms a review which critically evaluates the role of professional membership bodies and discusses if some of the continuing professional development (CPD) approaches and rationale used in more established occupations can be successfully applied to other emerging professions/industries (who are emerging as new professions or are varied in their stages of development across different countries). It also specifically seeks to identify the benefits and role of professional membership for individuals working within waste management functions and how these vary between countries. The consideration here is to assist in the identification of both current and future training and educational requirements, including the kinds of certifications (i.e. qualifications) required to support the standing and development of this growing sector and providing a skilled and professionally recognised work force. This consideration and elaboration should assist understanding bases by which an emerging sector of employment, such as waste management, can engage with those who work in the sector and be supported by institutional arrangements. The goal is to appraise how such arrangements could be strengthened and demonstrated through a brief overview of the current standing of professional membership of waste management professionals within Australia, the United Kingdom (UK) and within an international context (the International Solid Waste Association who provide an 'umbrella' organisation for other waste management organisations and institutions).

The review looks at the role and benefits afforded by professional intuitions and introduces the mechanisms for recognition of professional waste managers. The chapter concludes by

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discussing the development opportunities for a sector to self-regulate through professional standards and the improvement of educational and training support systems; and where the mandatory regulation may provide both opportunity and constraint.

2. The role of professional industry associations

A professional industry association can be described as an organisation which represents the interests and development of a particular discipline or profession, and those individuals working or studying within that discipline or profession. Whilst there are numerous professional industry associations worldwide representing an extensive range of job functions and activities, these associations vary in the levels of service and classes of membership offered to their members and the profession/industry that they represent. In the most sophisticated cases, these industry bodies facilitate personal development and advance professional recognition for their relative disciplines, job functions and members; and actively engage the profession and other stakeholders through a variety of activities. It is essential that a professional institution is perceived as representing its members interests and will support and enhance the professionalism of the industry and the professional development of its members. This will attract members and the support of industry organisations who may themselves wish to become members (where possible) or who may provide support to individual employees who wish to become members. This support may include time off work to attend professional events including conferences, specialised training, volunteer roles within the industry association and branch meetings; and in some cases, the payment of annual membership fees.

Professional industry associations can provide a critical role in developing occupational and professional standards for their respective disciplines and associated job functions through close collaboration with industry and its membership, so as to ensure that any qualifications and training meets the current skills need of the profession and its employers (Davis, 2009). As the pre-eminent source of labour market information for the profession and raising the profile of the profession, including ensuring individuals are aware of the opportunities for development and employers recognise the benefits of investing in the skills of their employees (London Economics, 2008). Industry bodies also may have a responsibility to promote and educate their professions and undertake associated activities such as research development, knowledge dissemination, lobbying, marketing and policy development (London Economics, 2008). It is necessary that an industry body offers a range of education and training activities (not just those formally accredited and those leading to professional qualification). For example, one-day seminars, technical symposiums, conferences and networking events. This will increase the appeal of affiliation and membership to a broader audience and, more importantly, offer greater development opportunity to a sector/profession and those individuals working within it as a whole.

Professional industry bodies and institutions tend to be governed by their members and, as such, reflect the requirements of the industry as perceived through its members, be those individuals, corporate organisations or a mixture of both. Professional industry associations also have a code of conduct by which its members are bound. Members (individuals or organisations) who act in violation of the code (where a complaint is investigated and upheld) may be subject to disciplinary actions which usually result in the removal of membership from the institute. In this way, these associations are held to be self-regulated to a degree and it is this autonomy that is guarded and often the basis for professional

autonomy. Yet, there are limits to this autonomy and occupations that are highly regulated may be subject to external regulation and monitoring. So, just as the certification and monitoring of commercial pilots is managed by government departments, despite there being professional associations, the handling of hazardous waste (e.g. radioactive, healthcare) is subject to external regulation through national and international legislation and formal agreements.

2.1 Identity and membership

Individuals are likely to join groups or actively seek memberships for a variety of reasons (Gallagher et al., 1997):

- as a mechanism for fulfilling personal interaction and affiliation needs;
- as a means for fulfilling status and self-esteem needs;
- to assist individuals in establishing a self-concept (that is, a way of defining their own identity); and
- as a mechanism for achieving power and goal-achievement needs (through a collective power and status).

These reasons emphasise benefits for the individual on a personal and professional level. Other reasons for joining such associations may include access to particular jobs and functions (where professional status is a requisite) and the associated salary and title. The collection of group memberships that an individual has and the attribution of unity across these different memberships can strongly influence one's identity (Pullen et al., 2007).

Swank (1987) also observed the need for individuals to be associated with an organisation that provided them with 'professional stature'. Bennett (2000) undertook a survey of individuals and organisations to determine the logic of sectoral business associations in the UK. The survey findings indicated that the role of accreditation to individuals was the primary driver for joining. The study went on to conclude that industry associations with larger numbers of individuals and/or small businesses as members placed a greater importance on collective activities with the main priority being accreditation for individuals. However, beyond forming an occupational identity, there are issues associated with maintaining or refining that identity. For instance, Allen (1963) proposed that to achieve a genuinely professional attitude and therefore professionalism, it is necessary for an individual to be aware of the scope of their sector, keep up-to-date with developments, participate in associated activities (both social and non-social events) and encourage and support progress within the profession. Allen (1963) also stated that professional (scientific) organisations provide many advantages including:

- providing identification of and interaction with other professionals;
- opportunities of attending symposia, conferences and other networking and learning events;
- opportunities afforded through professional contacts;
- providing journals, newsletters and other industry related information;
- providing a media for publication;
- discounts for access to events and journal publications.

It follows that the professional identity of an individual is essential and invaluable to the status of a discipline/sector and highlights the importance of professional identity as being akin to personal identity and that professional identity can eventually parallel professional recognition (Allen, 1963). So, there is reciprocity here as the development of the sector

requires development of the individuals and organisations acting within it. A Waste Management Association of Australia (WMAA) Survey conducted in 2009, (Inside Waste, 2009) determined a range of factors for individuals to join the association. Whilst the largest category (24%) reported that membership was to ensure that they kept abreast of the latest technology and trends, 20% reported networking opportunities; 15% to foster industry professionalism; 13% to receive newsletters and publications; 10% to access education and training; 5% stated discounts to WMAA events, and finally 2% specified 'other' reasons. The WMAA survey findings therefore are consistent with the literature in terms of what they offer to individuals, including factors for joining and also the advantages they provide (see Gallagher et al., 1997 and Allen, 1963). The survey results also highlight the importance that WMAA members associate with maintaining current and up-to-date knowledge of the sector and ensuring professionalism throughout the sector.

2.2 General benefits

Previous studies have determined the benefits (economic and/or personal) of attaining higher qualifications (Walker & Zhu, 2006; Royal Society of Chemistry, 2005). However, there are few well documented studies detailing the benefits associated with professional membership, perhaps because many of the associated benefits, such as networking opportunities and life-long learning through CPD, are more difficult to quantify or still lack acknowledgement of their importance by some employers.

In December 2008, the Consultative Committee for Professional Management Organisations (CCPMO), an industry advisory committee, released a report outlining the benefits of professional membership to industry, the career of individuals and the wider economy as they had determined this area had not been addressed in previous studies. The CCPMO represent eight UK professional bodies (Institute of Credit Management; Chartered Institute of Logistics and Transport; Chartered Management Institute; Chartered Institute of Marketing; Chartered Institute of Personnel and Development; Chartered Institute of Management Accountants; Chartered Institute of Purchasing and Supply; Institute of Chartered Secretaries and Administrators) with over a combined 1,500 employees and 560,000 students. Annual turnover for these organisations range between GB£2-43 million with a clear relationship between the annual turnover, number of employees and the total number of members (including students). The CCPMO also award over 50,000 qualifications per annum ranging from entry level qualifications to post-graduate level with these opportunities extending to both UK and international applicants (London Economics, 2008). The courses leading to these qualifications are developed in close collaboration with industry and other key stakeholders and are therefore described as "demand-led" and are offered through a variety of learning media including accredited education providers; in addition to accredited university courses and modules. The members of the CCPMO either operate directly as, or contain a Qualifications and Curriculum Authority (QCA) recognised awarding body and, as such, have to comply in accordance with UK national standards relating to quality assurance and regulation [QCA recognises and regulates awarding bodies and their qualifications in the UK in order to maintain the standard of the national qualifications framework (UKCES (2008))].

There are seemingly direct benefits to members of professional associations in terms of salary and the worthiness of the kinds of employment they secure. The CCPMO research concluded that individuals holding "*professional qualifications and membership of a professional institution are estimated to achieve both higher earning and be more likely to be employed...in*

comparison to individuals with no professional qualifications" (London Economics, 2008: *pviii* and p32). The financial data indicating a lifetime economic benefit of both professional qualifications and membership as being approximately £152,000 (comprised of £81,000 from professional qualifications and £71,000 from professional membership). Such a financial benefit to the individual clearly provides a strong incentive for undertaking professional qualifications and pursuing membership which, it could be argued, ensures life-long learning through CPD is undertaken whilst the individual remains in employment. Additionally, within this sector many salary scales need to be supported by a professional qualification (Heynes, 1994), not unlike Chartered Waste Managers in the UK who can apply for a wider range of positions (mainly management roles) and can additionally expect a higher salary of around £3-5,000 more than their unrecognised counterparts (LearnDirect, n.d). Harvey et al., (1994) also determined that salary was an indicator of perceived professional standing and success.

Although the report (London Economics, 2008) clearly represents a strong marketing tool for membership of these institutes, economic and employment opportunities associated with professional membership have been noted elsewhere (Harvey, et al., 1994; Davis & Read 2006). Additionally, such activities must represent a broader benefit to the economy through increased income tax payments but also the increasing professionalism of a sector resulting in improved practices and often accompanied by tightening regulation. The members of the CCPMO and other professional industry bodies (such as the UK's Chartered Institution of Waste Management and the Chartered Institution of Water and Environmental Management) are also self-funding, requiring no financial support from government to develop and deliver their training and CPD activities. The profitability associated with the provision of training and professional qualifications in some industries has led to an extensive network of accredited training providers and development of a flexible range of study materials which, in turn, has increased the flexibility associated with participating in further personal development. Thus, allowing many to undertake further study in collaboration with full-time employment and more importantly, where learning compliments job function, receive funding from their employer.

A UK study (London Economics, 2008) detailing other qualifications held by individuals with professional qualifications and members of professional institutes determined that approximately 10% of the UK's working population hold a professional qualification whilst approximately 2% are members of a professional institute. Additionally, the qualifications held by those individuals with professional qualifications and/or professional membership vary significantly from the rest of the working population. For instance 33% of individuals with professional qualifications have undergraduate degrees, whilst this rises to 57% for individuals with professional memberships. When the data was further broken down individuals with professional membership also undertake a range of other qualifications and studies throughout their career indicating a process of life-long learning.

3. Current recognition of waste management professionals

This section seeks to highlight the differences in professional standing and development opportunities between individuals working in the waste management sector across two countries, the United Kingdom (UK) and Australia. Despite similarities between these two countries relating to industry trends and synergies such as increasing consolidation of the

industry (IBISWorld, 2007) and the prevalence of the same international organisations; the recognition and support of waste management professionals is diverse.

The Waste Management Association Australia (WMAA) is currently the only specific waste sector industry body, although other institutions such as the Environmental Law Society and the Environmental Institute of Australia and New Zealand (EIANZ), represent some individuals working within the waste management sector. The WMAA is a 'young' organisation when compared to the UK's Chartered Institution of Wastes Management or the International Solid Waste Association (ISWA), with over 100 years and 35 years respectively of constitution and membership. Membership of WMAA is based on subscription and there are no formal training or educational standards which exist or regulate/certify levels of membership. WMAA offers a wide range of learning opportunities for both its members and other interested bodies through seminars, breakfast meetings and conferences. However, there is no mandatory Continuing Professional Development (CPD) specified for its members or Structured Educational Training (SET) for its graduate members. Therefore, the basis for membership, categories of membership and structured professional education arrangements within the WMAA are under-developed (Davis, 2008). The professional recognition of industry practitioners is an essential part of developing the waste/resource management sector. In order for structured professional development opportunities and professional recognition to be implemented, it is essential that the functions/roles within the industry (both present and future) are accurately mapped. From which, suitable training and education programmes can then be identified and developed; and membership classes proposed and entry requirements to those classes determined. As a result of the emergence of the waste management sector and level of sector development in Australia, there are currently limited education and training programmes both within, and for, the Australian waste management sector, particularly when compared to other countries such as the US and UK (Davis, 2008). The formal recognition of the waste management profession and the professionals operating within the industry has in the UK for example, been a significant driver for the development of training and education programmes (i.e. professional membership schemes including Chartered status). Many UK universities include waste management modules within a range of degrees including environmental studies and engineering. With little demand from students and industry in Australia, and the lack of recognition of the importance of the sector its omission from units/modules in key disciplines such as engineering is set to continue. Additionally, in the UK there is an extensive range of stand-alone courses ranging from MBAs to post-grad and undergrad degree programmes specifically in waste management (Davis, 2008). The standing of qualifications and the level of qualification is proposed to be an indicator of the standing of the occupation.

The UK's Chartered Institution of Wastes Management (CIWM) specifically represent individuals as opposed to corporate entities. The CIWM has over 7000 individual members whilst WMAA has under 600 individual members (including students). However, unlike CIWM who only offers individual memberships, WMAA has over 150 organizational memberships (including state corporations, small businesses and Local Governments).

There is also a distinct difference in the development and complexity of the membership grades and eligibility criteria between WMAA and CIWM. The diverse range of academic and competency based qualifications in the UK has allowed the CIWM to purposely break down and segregate different levels of educational and professional achievements attained

by its members facilitating a diverse number of membership grades, but also clearly articulating and allowing movement (development) between them. Additionally, the CIWM offers a further professional designation (Chartered Waste Manager).

4. Identifying and recording competencies for professional membership

Professional institutions set criteria for key competencies for individuals to achieve against classifications of membership. The CIWM provides an overarching set of its competencies designed for full Corporate Membership and Chartered Waste Manager status (Table 1). Table 1 shows the five broad key competency areas and the types of activities within each which must be adequately fulfilled to be eligible for Chartered status. These competencies reflect the organizations role in lifting the professionalism with the sector through setting professional standards, essentially providing a benchmark of minimum competencies required to fulfill the roles and job functions reasonably expected as a Chartered Waste Manager in the UK.

Key Competencies: CIWM Chartered Waste Manager	
1	Knowledge and understanding of the wastes management industry, including: <ul style="list-style-type: none">• Current and impending legislation;• Waste Strategy;• Hot topics and current affairs;• Structure of the Industry.
2	Ability to analyse and evaluate problems and develop practical solutions: <ul style="list-style-type: none">• By providing examples from their own working experiences as to how these competencies have been met;• Demonstrating creativity, innovation and motivation.
3	Leadership in the management of waste, giving examples of: <ul style="list-style-type: none">• Team management;• Project management;• Motivation;• Monitoring and support;• Promotion of sustainable waste management.
4	Effective interpersonal skills providing examples of: <ul style="list-style-type: none">• Written communication• Presentations;• Engaging information and providing advice;• Chairing meetings and committee representation;• Technical publications and reports.
5	A personal commitment to professional standards recognizing the obligations to society, the profession and the environment, providing examples of: <ul style="list-style-type: none">• Promotion of sustainable waste management;• Engaging with key stakeholders;• Working within legislative and regulatory timeframes;• Personal development and training.

Table 1. Competencies for CIWM full Corporate Membership and Chartered Waste Manager status (CIWM, 2008; www.ciwm.co.uk).

In 2004, the International Solid Waste Association (ISWA) developed the International Waste Manager (IWM) qualification, launching the scheme mid-2005 and with their first applications being received in early 2006. The IWM certification is awarded at three different levels, intermediate, advanced and international depending on the applicant’s ability to meet the competency criteria specified in Table 2. Overall, the competencies are close to those specified by the CIWM such as making a commitment to sustainable development, understanding legislative commitments and requirements, and a range of management and administrative functions. Additionally, ISWA requires a commitment to their Code of Ethics *“To take steps to minimize environmental harm; use skills and experience in waste management to serve the needs of the environment for responsible environmental behavior; not to encourage conduct involving dishonesty, fraud, deceit or misrepresentation or discrimination; and commit to maintaining personal professional competence and strive to maintain integrity and competence of the profession”* (CIWM, 2009: page 20-21). Such commitments to codes of conduct or codes of ethics being integral to all institutions.

Key Competencies: ISWA International Waste Manager	
1	<div>The applicant must be able to demonstrate knowledge and understanding attributes of:<ul style="list-style-type: none">• Sustainable waste management principles;• General management and administrative procedures;• Thorough understanding of legislation and regulations relevant to country and region where operating;• Identify and explain short, medium and longer term environmental threats and opportunities related to the sustainable management of waste.</div>
2	<div>The applicant must demonstrate the following competencies:<ul style="list-style-type: none">• Develop and communicate waste management issues to a wide range of audiences;• Demonstrate a willingness and persistence in addressing abnormal waste management issues;• Possess a high level of leadership and motivational skills to ensure that good waste management practice is effectively communicated and integrated into decisions and actions;• Identify, engage and respond to stakeholders;• Develop effective means with which to liaise and advise others.</div>
3	<div>The applicants must be able to demonstrate their engagement by:<ul style="list-style-type: none">• Understanding a range of global threats and their importance to the waste management industry;• Identifying solutions to environmental improvement and mitigation and recognizing their dynamic nature;• Recognizing the interdisciplinary nature of waste management issues;• Putting environmental issues into their working context;• Demonstrating that they approach work in a competent manner and work towards and secure change and improvements;• Identifying measures to ensure that individuals and organizations are accountable and understand their responsibilities for both environmental damage and improvement.</div>

Table 2. Competencies for ISWA International Waste Manager status (CIWM, 2009; and www.iswa.org)

The one defining tool for awarding and retaining professional status across the various disciplines and institutions is continuing professional development (CPD). Membership grades which require a structured CPD framework to be completed on an annual basis by its full members or structured entry to a graduate membership grade need to be fully supported through the professional body awarding that membership. CPD is an essential requirement to retain Chartered membership grade in any institution. For example, CIWM has developed strong frameworks for both CPD and Structured Educational Training (SET) specifically for its graduate members. Whilst such a framework could be viewed as a mechanism for members to take control of their own development and professional development needs (Noon, 1994); they also provide a mechanism for “taking stock” (Wilson & Halpin, 2006) as can be clearly identified in Table 3 which shows the electronic ‘CPD Recording Spreadsheet’ developed by the CIWM for completion by all individuals holding a professional membership grade. Although the table headings are ‘blunt’ and the area for reflection is weak, the sheet provides a visible record which can easily be used and later retrieved for the purposes of CPD verification by the institution and for personal development by the individual such as for the construction of a resume.

CPD is perceived as an essential component of entering and remaining within a profession and can influence the construction of professional identity (Tang and Choi, 2009). The rationale for CPD has undergone a paradigm shift over recent decades. Jackson (1968) proposed that CPD was essentially a ‘deficit model’ used to fulfil gaps in the knowledge and skills of individuals; as opposed to an aspirational model which implies that improvement is being undertaken. Hargreaves (1994), proposed the post-technocratic model of professional development in which lifelong professional learning occurs which is regularly assessed and which is also reconciled against the organisations needs. Days and Sachs (2004) however, propose that the technocratic model is flawed. As individuals move through different stages of their careers, their needs change accordingly and these may be inherently different from the needs of their employer/organisation (thus creating another area of potential conflict).

Date	Activity	No. of Hrs	Reason	What Learnt	How will I use it/further action	Example
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Table 3. CIWM CPD Log.

In addressing this difficulty, the UK’s CIWM SET model covers core skills required unilaterally across the profession but also allows individuals to undertake role and discipline specific training and development activities. Additionally, CIWM courses (most of which are accredited and often operated in collaboration with external parties) cover a range of technical areas (Davis, 2008). In 2009, the CIWM further expanded its support for core skills across the disciplines and entered collaboration with the Open University to offer individual non-accredited modules in subjects from financial management to team work. This is essential for such a diverse profession which embraces many disciplines and activities. It has been argued (Reid & Brown, 1996 as cited in Wilson & Halpin, 2006) that the growth of core, highly transferable and cross-disciplinary skills is damaging to the concept of profession and affords movement of key professionals between sectors, to the detriment of poorer salaried or less prestigious professions. The perceived levels of professionalism within an Institution and commonly held standards between all Chartered Institutions also facilitates the movement of professionals between sectors, allowing them to gain professional membership to other institutions.

5. Self-regulation and the role of industry associations

Bennett (2000) highlighted the ability of professional bodies and other associations in the self-regulation of industry sectors, helping to improve standards and competitiveness of both organisations and individuals. However, Bennett (2000) also highlighted the issues associated with an industry body trying to be as all-encompassing as possible which leads to professional standards being dumbed down and compromised down to the lowest common denominator.

Higher expectations and requirements for an industry require suitably well qualified individuals who possess the right knowledge and skills upon entry to the profession but also throughout their careers. Professionals historically have been neutrally portrayed as 'restricted' or 'extended'. However, the change for professionals to now be 'compliant' is coupled with the expectation for many professions that CPD is now an expectation as opposed to an option (Hoyle, 1980) as is the membership of appropriate institutions and professional bodies. This is now certainly true for some engineering professions in Europe, where only Chartered Engineers can legally 'sign off' key documents, and where Chartered status now requires a minimum of a master degree and numerous core competencies to be fulfilled during academic studies (Davis, 2006). Doney (1998) and Noon (1994) as cited by Wilson and Halpin (2006), both positively discuss the role of mandatory CPD for a sector with regards to raising the 'standing of its professionals' and 'professional self-image'.

Government policies and interventions can be a key driver for CPD and the development of CPD systems. The UK's waste management sector for example, has seen increased structuring and formalisation of CPD for its practitioners in order to drive accountability and performativity. Although this has no doubt raised the perceived professionalism of the industry and has even resulted in increasing salaries for those holding professional memberships and qualifications (Davis & Read, 2007); the driver for this development in the UK has been largely due to legislative requirements and agendas rather than for the sake of the development of the profession or the individuals within it. Historically, personnel working within the UK waste management industry tended to have minimal educational qualifications and acquired initial practical skills through 'on the job training' within the sector. However, the Environmental Protection Act 1990 and the Waste Management Licensing Regulations 1994 introduced the concept of 'technical competence' for waste management personnel in positions of responsibility. The aim of these regulations was to assess personnel competence to a recognized occupational standard in order to ensure more sustainable management of wastes.

The Waste Management Regulations (as amended) 1994, stated that all managers of facilities covered by a waste management licence needed to demonstrate their technical competence and, therefore, require a Certificate of Technical Competence (COTC). The COTC was obtained through the vocational qualification schemes, which were achieved through the assessment of an individual's competence to do the job against national standards. The required vocational qualification (VQ) depended on, and related to, the particular area in which the individual worked. Upon completion of the VQ, an individual then applied for the corresponding COTC. VQ's are broken down into National Vocational Qualifications (England and Wales) and Scottish Vocational Qualifications (Scotland) and are offered at Levels 3 and 4 for the mandatory COTC. In addition to the mandatory COTC, there are a wide range of National Vocational Qualifications (NVQ) and Scottish Vocational Qualifications (SVQ) that are non-mandatory and are designed to improve the skills of the

workforce. These qualifications cover a range of waste management sectors (collection; treatment; landfill; recycling and street cleansing) at Levels 1- 5. The N/SVQ's all focus on the practical ability of an individual to perform their role and, as such, are assessed through direct observation and proof of performance.

Increasing regulation of the waste management sector in the UK has seen a rise in the number of professionals 'testing' their professionalism and drawing on professional certifications to prove competence and validate their findings/work. Certainly, the credentials of an individual acting in an 'expert witness' capacity are more readily accepted and proven where certification is held.

Mandatory national certification for professionals may also be considered. Under such a programme applicants would need to meet all qualifying criteria. Such an approach would assist industry regulators by allowing them to use certification as a condition of licencing both environmental professionals (for example, consultants providing reports) and the operational and management staff located on licenced waste management sites, as is currently the case in the UK. It could also act as a marketing tool for some professionals who can use their certification as a means of distinguishing themselves from less qualified individuals. Wilson and Halpin (2006), make the distinction between training (including CPD) that meets the needs of the sector as opposed to the profession. There is concern that where mandatory qualification is required, training opportunities are focused on attaining the qualification and ensuring ongoing compliance, as opposed to identifying and undertaking CPD which is beneficial to the individual and the organization; and during times of limited budgets and training opportunities, it will be less likely that any CPD activities extend beyond compliance.

Based on the requirements and competencies for the professional membership classes required by the CIWM and ISWA (Tables 1 and 2), it is therefore proposed that there are three conceptions of knowledge associated with the development and learning by waste management professionals (as adapted from Cochrane-Smith and Lytle, 1999: 'conceptions of knowledge associated with teachers learning and development'):-

- Cognitive knowledge for industrial practice: formal knowledge generated through research and industry collaborations, commonly documented in the peer-review and trade press media. Includes government funded research and formalised initiatives. Particularly applicable to the dissemination of new waste management technologies.
- Knowledge of practice: critical examination of personal performance against job description/role. Knowledge gained through experience and undertaking the role. Including the recognition of broader business responsibilities, and social and environmental concepts such as sustainability/sustainable waste management.
- Self-knowledge: practical knowledge gained through 'on-the job' experience, evaluation of previously attained qualifications; and education and training opportunities completed. Including those from development and career objectives. This would require reflection of personal issues and values, and all new knowledge (from all sources).

Such a framework of knowledge provides opportunities for the professional development of an individual and the sector. Any expansion to provide additional membership classes for the Australian waste management sector must accept the forms of knowledge held by waste management professions and fairly acknowledge achievements.

6. Conclusions

There is differentiation across all countries with regard to the certification and opportunities afforded to professional individuals working within the waste management sector. Although ISWA has provided an internationally recognised grade of membership, the lack of perceived prestige of the sector in some countries diminishes the standing of this award. There are opportunities for the further development of both professional memberships/associations and support mechanisms for this valuable industry in many countries.

Any professional certification or qualification, particularly those leading to professional membership grades needs to consider 'open access' (that is access to all members of the profession regardless of academic achievement or time spent in industry). In order to achieve open access, a range of professional qualifications across all levels is required; and the development of membership grades to reflect those qualifications so that access to membership and qualifications is appropriate to various entry routes. There is a danger where membership grades are based purely on professional qualifications (including degree level attainment); that the membership body is viewed as elitist or 'closed' to certain groups of individuals. Given the diversity of professions and skills encompassed by waste management and the considerable industry knowledge and expertise held by many practitioners, access to membership grades also needs to be based on industry experience and, as such, the development of a suitable mechanism for recording, recognising and accrediting appropriate industry knowledge and experience is essential. This then allows all learners and industry personnel the opportunity for accessing professional membership and the benefits associated with it even if they do not hold formally recognised qualifications. This discretion is essential for multi-disciplinary sectors. For such a diverse sector as waste management, there is no rationalization for the formation of steep barriers for active membership based on particular disciplines or degree courses. However, membership based on more than purely fees paid and compliance to a Code of Conduct are necessary for professional development of the sector. Given the diversity of the disciplines across the sector, it would be desirable to allow all suitable degrees and other qualifications to be eligible for a certified level.

Who decides the requirements for being classed as a 'waste management professional' and what the bases are for that determination will be key to the process. This question is fundamental in the design of standards for certification/accreditation and measuring competency and attainments against those criteria. For example, in the first instance a judgement on the level of educational attainment must be made; how many years experience working in the industry is required; types of work and roles in certain disciplines/sectors also need to be decided. If poorly consulted or conceived these decisions can negatively influence membership. Merhr et al., (2002) acknowledged that for example, the US Wildlife Society has in its past been too linear with regards to assessing applications for professional certification with applicants being denied certification based on the degree they did or did not do or their college transcript; with the Committee on Professional Standards stating that the *"academic and experience requirements as applied must continue to provide an indispensable measuring stick for nearly all applications..... even though there is no justification for the erection of impassable barriers to active membership based solely upon such concrete requirements as courses taken, degrees received or positions held"*. More recently, the Committee was provided with more discretion so that applicants only had to 'satisfy the

intent' of the requirements. Maehr et al., (2002) also identified a number of perceived barriers for individuals applying for certification including:-

- The application process is too time consuming;
- Certification is too expensive;
- Any changes to the criteria for certification of individuals can lead to a perception of an uneven playing field;
- Perceptions that poor candidates have obtained certification whilst quality practitioners are refused;
- Certification is unlikely to provide any benefits, particularly for those already functioning at a professional level within an industry.

In instances where there is industry resistance to adopt an accreditation system or where even certified individuals resist or fail to undertake ongoing professional development and to demonstrate that professional development, the sector may experience an increase in the number of practitioners who are poorly trained (Maehr et al., 2002).

The process of accreditation of university and other educational courses has long been recognised as a way of formalising a sector and imposing quality. However, a professional institution also needs to determine a robust methodology agreed with academia for the ongoing monitoring, regulation and development of courses. This can require an adjustment of views, particularly in some institutions where the control of curricula is left to the discretion of individual academics who teach their area of expertise as opposed to a wider and broader knowledge set (Davis & Read, 2007). Whilst this diversity in taught curricula for the same sector could be seen as a benefit as it recognises this diversity and educates individuals to undertake different functions and allows academics flexibility to teach to their agendas, it may also be seen as a disadvantage indicating that educators, employers and professional bodies have failed to develop and/or communicate common standards for educational programmes. The promotion of professional bodies may also be weak within some higher education environments. It is therefore proposed that the accreditation of a course and/or certification of professionals would assist in the promotion of quality and professionalism within higher education and training courses.

Due to the diversity of the profession and its interdisciplinary nature, it will be harder to define a coherent core curriculum. The depth of knowledge required for specialisation in some areas versus the breadth of the sector and issues impacting the sector would need to be carefully considered and balanced against any requirements for professional membership grades/certification. Several attempts have been made by various organisations across different countries to initiate the development of a waste management curriculum. One such attempt was by the National Recycling Coalition, US, who assembled an expert committee to devise an integrated waste management curriculum (Conn, 1993). The committee first established a set of four objectives for a curriculum (Conn, 1993) which comprised: (i) the education of specialists in integrated waste management (IWM); (ii) to provide training in IWM skills; (iii) to provide non-specialists with a limited knowledge of IWM; and (iv) to contribute to the development of environmental literacy amongst students generally. These four objectives provided a rational approach to meeting industry and academic requirements, creating a starting point, which identified sector needs before attempting a solution. Clearly, a single curriculum would evidently not meet all of these objectives as there is an individual need for a unique and specific curriculum and/or approach to meet

each objective. This is the *raison d'être* applied to, and driving ongoing research, where it is accepted that the curriculum for under-graduate students will be different from post-graduate students which, in turn, will be different from courses designed to meet the needs of those already working in industry (either within waste management or in a complimentary discipline). In addition to defining the needs of industry in any curriculum, there are clearly other considerations that influence curriculum design, including academic standards and requirements; and the various limitations of industry and industry personnel (Davis, 2005). Indeed, the whole process of curriculum development is premised on complex interrelations among purposes, experiences, content and means of evaluation.

Whilst the author is not proposing a single curricula or class of membership for the waste management industry either nationally or internationally, there is little information available on the 'real' size of the sector and the full range of activities that fall within it across many countries, so it is not clear what constitutes the industry, its needs and skill requirements in many cases. There is a need to adequately quantify this sector for every economy, particularly if adequate education and training provisions are to be identified and the professionalism of the industry and the individuals working within it is to be recognised. If this does not occur, the waste management sector may risk losing core personnel to other sectors and limits opportunities for new recruitment.

7. References

- Allen, J. (1963). Professional Identity. *Bios*. 34 (4): 167-170.
- Bennett, R. (2000). The Logic of Membership of Sectoral Business Associations. *Review of Social Economy*. LVIII (1): 17-42.
- CIWM. (2008). "*Still Not Taken the Plunge*". CIWM: the Journal for Waste and Resource Management Professionals. The Chartered Institution of Wastes Management. November 2008. P17.
- CIWM. (2009). "*Going Global*". CIWM: the Journal for Waste and Resource Management Professionals. The Chartered Institution of Wastes Management. June 2009. P20-21.
- Cochrane-Smith, M., Lytle, S. 1999 Relationships of Knowledge and Practice: teacher learning in communities. *Review of Research in Education*. Iran-Nejad, A & Pearson, C. (Eds)
- Conn, W.D. (1993). Initiating the Development of an Integrated Waste Management Curriculum. *Resources, Conservation and Recycling*. 8. 55-61.
- Davis, G. (2005). The Education and Training of Wastes Managers within the UK: Fulfilling the Educational Needs of Waste Managers Working in Small to Medium Sized Enterprises (SME's). ISWA 2005 World Congress, Buenos Aires, 7th-10th November 2005.
- Davis, G. (2006). The Use of Case Studies for Integrating Sustainable Development into the Education of Engineers. *World Transactions on Engineering and Technology Education*. UNESCO International Centre for Engineering Education (UICEE), Monash University. Melbourne. 5 (1): 159-163.
- Davis, G. (2008). Formulating an Effective Higher Education Curriculum for the Australian Waste Management Sector. *The Journal of Wastes Management*. 28: 1868-1875.

- Davis, G (2009). Who Are Waste Managers: A Story of Constructed Identities and Professional Opportunities. Oral presentation at the 24th International Conference on Solid Waste Technology and Management, Philadelphia, US. 15-18th March 2009.
- Davis, G., Read, A. (2007). Adding Value to the Waste Management Curriculum: Educating for New Technologies. Paper in proceedings of Sustainable Waste Management Conference. Melbourne. 19th-21st November 2007.
- Day, C., Sachs, J. (2004). Professionalism, performativity, and empowerment: discourses in the politics, policies and purposes of continuing professional development. International Handbook on the Continuing Professional Development of Teachers (Eds Day, C and Sacks, J). McGraw Hill, Open University Press.
- Doney, E. (1998). Developing Opinions: The Attitudes of ILS Staff to Continuing Professional Development. *Library Management*. 19 (8): 486-491.
- Gallagher, K., Rose, E., McClelland, B., Reynolds, J., Tombs, S. (1997). People in Organisations: An Active Learning Approach. Oxford, Blackwell.
- Hargreaves, D. (1994). The New Professionalism: The synthesis of professional and institutional development. *Teaching and Teacher Education*. 10(4). 423-38.
- Harvey, R., Lemon, R., Southern, J. (1994). Personal Factors, Education and the Effectiveness of Professional Engineers. *European Journal of Engineering Education*. 19 (3): 351-363.
- Heynes, P. (1994). CPD from the other side of the door. *Librarian Career Development*. 2(4): 13-15.
- Hoyle, E. (1980). Professionalisation and de-professionalisation in education. World Yearbook of Education: The Professional Development of Teachers. (Eds Hoyle, E and IBISWorld, 2007. Waste Disposal Services in Australia Report. Industry Code Q9634. IBISWorld, January 2007.
- LearnDirect. (n.d). Annual Salary Guidelines for UK Public Sector Waste Personnel/Officers. Figures provided by Learn Direct, UK University for Industry, UK Government. www.learndirect-advice.co.uk. Retrieved 30th September 2009.
- Megarry, J). Pp42-56. Kogan Page, London.
- Inside Waste. (2009). "Members have their say on WMAA". Inside Waste. April 2009. P14.
- Jackson, P. (1968). Life in Classrooms. Holt, Rinehart and Winston, New York.
- London Economics. (2008). An Economic Impact Assessment of the CCPMO: Final report for the consultative committee for professional management organisations.
- Maehr, D., Thompson, B., Mattfeld, G., Montei, K., Haufler, J., Kerns, J., Ramakka, J. (2002). Directions in Professionalism and Certification in the Wildlife Society. *Wildlife Society Bulletin*. 30 (4): 1245-1252.
- Noon, P. (1994). CPD: Professional Development-Continuing and Compulsory? *Librarian Career Development*. 2 (4): 4-8.
- Pullen, A., Beech, N., Sims, D. (2007). Exploring Identity: Concepts and Methods. New York, Palgrave Macmillan.
- Royal Society of Chemistry. (2005). The Economic Benefits of Higher Education. Pricewaterhouse Coopers, January 2005.
- Swank, W. (1987). Professionalism on the Wildlife Society. *Wildlife Society Bulletin*. 15: 55-67.

- Tang, S., Choi, P.L. (2009). Teachers' Professional Lives and Continuing Professional development in Changing Times. *Educational Review*. 61 (1): 1-18.
- UKCES. (2008) Empowering SSCs- Employer Driven Skills Reform Across the UK. A Re-Licencing Framework for the Sector Skills Councils. The UK Commission for Employment and Skills.
- Walker, I., Zhu, I. (2001). The Returns to Education: Evidence from the Labour Force Surveys. Department for Education and Skills Research Report 313.
- Wilson, K.M., Halpin, E. (2006). Convergence and Professional Identity in the Academic Library. *Journal of Librarianship and Information Science*. 38 (2): 79-91.

Waste Management

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Solid Waste Management is one of the essential obligatory functions of the Urban Local Bodies/Municipal Corporation. This service is falling too short of the desired level of efficiency and satisfaction resulting in problems of health, sanitation and environmental degradation. Due to lack of serious efforts by town/city authorities, garbage and its management has become a tenacious problem. Moreover, unsafe disposal of garbage and wastewater, coupled with poor hygiene, is creating opportunities for transmission of diseases. Solutions to problems of waste management are available. However, a general lack of awareness of the impact of unattended waste on people's health and lives, and the widespread perception that the solutions are not affordable have made communities and local authorities apathetic towards the problems. The aim of this Book is to bring together experiences reported from different geographical regions and local contexts. It consolidates the experiences of the experts from different geographical locations viz., Japan, Portugal, Columbia, Greece, India, Brazil, Chile, Australia and others.

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