# CHAPTER 2:

# *Business as usual: Project management of a European Project*

Paul Bramble, University of Northampton

## Introduction

As projects become more complex in terms of methodologies and technologies, distant and international partnerships, and in relation to the need to engage with stakeholders and the public, the traditional academic-only management style is necessary but not sufficient any longer. It is becoming apparent under the European Commission's new Erasmus+ and Horizon 2020 programmes that excellence in research management; the nature of the partnership, and the expertise it brings in the area of dissemination and sustainability (Erasmus+ Programme Guide, 2014) are key drivers for any organisation applying for funding. To accomplish all such expectations, effective project management, that is the, planning, monitoring, assigning and controlling of all aspects of a project, is essential. Based on the Success at School project's experience, this chapter argues that the presence of an experienced project/research manager is needed, but that, as the nature of the projects change, there is also a need to move beyond traditional lines of professional demarcation between academics and administrative support roles.

The nature of a European project is complex since, for example, it comprises a temporary team of people who are characterised by a group consciousness, a definable membership,

a sense of collective purpose, interdependence and the ability to act as single entity (Mullins, 2005), but, in many respects, this is a group that develops its identity as the projects unfolds. These combined aspects require the project manager, traditionally in an academic environment the Principal Investigator (PI), to keep all those involved in the project motivated so as to deliver the project objectives within a designated timescale while maintaining the projects performance targets for costs, risks, time, quality and benefits (Hinde, 2012). Whilst there is no dearth of literature on how to manage a project, much of what is written about project management is from a private sector perspective. Although, as it will be argued in this chapter, many of the principles still apply, the literature from the Higher Education (HE) sector is far from abundant.

This chapter, through the use of the PRINCE2 model, explores how the role of project management (PM) is 'unitised' within an EU commissioned project in relation to how the role of the project manager developed parallel to and in support of the role of the Project Leader in the Success at School (SAS) project (www.successatschool.eu). The chapter is written as the personal professional reflection of having being involved as a project manager. Starting with a contextualisation of the changing environment in research and Higher Education, the chapter explores the way in which project management can be beneficial to a project. It then reflects on the development of the role of project manager by showing how, at the University of Northampton in the UK, we approached this change through the collaboration between academics and project manager, and how this role developed throughout the lifespan of the project. The chapter concludes with a personal reflection on the role of a project manager by looking at elements such as Co-ordination, administration and impact within the management of the SAS project.

## The importance of project management and the future of EU commissioned work

In a changed and highly competitive research context, funding bodies are more careful in awarding projects. Some of the selection criteria used are an increased focus on cooperation across social sectors, trans-disciplinarily, and social impact. The European EU Commission's new EU Erasmus+ programme, for example, launched in Spring 2014 to support the actions, cooperation and objectives of the Europe 2020 Strategy states,

'Erasmus+ aims at going beyond these programmes, by promoting synergies and cross-fertilisation throughout the different fields of education, training and youth, removing artificial boundaries between the various Actions and project formats, fostering new ideas, attracting new actors from the world of work and civil society and stimulating new forms of cooperation.' (Erasmus+ Programme guide, 2014, p.10).

> *Clearly, to achieve all the above goals requires carrying out a complex set of interactions in an effective and efficient manner. As the European funding bodies look for excellence in management to deliver successful partnerships, a key driver for any organisation applying for funding in this changing environment is the presence of an experienced project manager (Erasmus+ Programme guide, 2014 & Horizon 2020 Work Programme, 2013).*

Simultaneously, universities, both in the UK and in Europe more broadly, are going through a series of major changes to their corporate identity in terms not only of their goals and mission, but also in relation to the composition of their stakeholders. As Córcoles (2013) suggests, universities in Europe are faced with the following challenges:

- Increased competition regarding teaching and research with other organisations, either private or universities, while, at the same time, need for harmonization across the European Union;
- The increasing level of the internationalization of education and research.
- Implementations of new research modes of delivery, but also competition with private research providers.
- Increased demand for transparency and accountability about the "results" and "benefits" derived from the public funds.

This, as Petford (2013) suggests, requires universities to become more competitive in the global marketplace, not just in terms of securing students but also in relation to innovation in enterprise and research.

In such an environment the penalties of failing to adapt to change become more evident, the focus of management attention is inevitably moving to achieve a balance between 'business as usual' and business change (Office of Government Commerce, 2009). Barber et al.'s (2013) report *An Avalanche is Coming: Higher education and the revolution ahead* describe the need for a radical and urgent transformation of higher education. In terms of research, the issue is more about the changing nature of research projects which Langley (2012) describes as characterised by "the increasing complexity of research funding, which is often larger in scale, milestone driven, multi-partner, multi-discipline, required to demonstrate impact, and subject to more audit, and arguably, greater governance and bureaucracy" (Langley, 2012, p.71).

It is in this challenging and fast changing research context that the role of Research Management and Administration (RMA) become key in delivering the projects successfully.

This is neither to suggest that project research managers, traditionally located within the administrative body of a university, could or should replace academics nor does it suggest to view the progress and survival of higher education as requiring to surrender itself to private sector principles (Guardian Professional, 2014). It is to suggest that the support of a project manager can be of benefit. However, to be beneficial the project manager has to have a clear understanding of the purpose of the project as an investment and make sure that what the project delivers is consistent with achieving the desired return (Office of Government Commerce, 2009). To achieve the above, the SAS project combined the knowledge, skills and competences of both the project leader and the project manager (Bramble et al., 2014) since the research management function provided a range of skills and knowledge (including costing skills and negotiation skills, through to specialist knowledge of EU and other funders, Intellectual Property, commercialisation) (Green and Langley, 2009), while the project leader, or PI function provided the academic to set the goals, mission and overall strategy.

Another important reason why the role of project manager is becoming more important lies in the language shift used at Erasmus+ coordinators meetings in Brussels. While to start with it was focused on dissemination and finance related topics, now it centres on quality, impact and sustainability, and project dissemination (technology - social media based web strategies). In this regard, Lock (2013) suggests that project managers in the age of technology could be described as specialists, thus, indicating the need for a more specialist role within a research project, one which a project manager can fulfil.

## An appreciation of project management

As already mentioned in other chapters, the Success at School project was the result of the collaboration of seven partners in six European countries, around 20 team members in all. Each partner was responsible for one Workpackage, and each Workpackage included a number of deliverables with deadlines across the two-year period. Work package 1 (WP1), led by the University of Northampton, was responsible for the management of the project in all its aspects, therefore including ensuring timely delivery of targets, finance, overall direction of the project, collaboration between partners, etc. So as to accomplish all its tasks, WP1 comprised two academics working as project leader and researcher respectively, and a colleague from the School of Education administrative staff. This section focuses on the development of the role of the latter, which developed, as the project unfolded, into a project management (PM) role alongside that of the project leader.

In reflecting on how the PM role developed, it is necessary to explain the Prince2 (Projects IN Controlled Environments) management model which was used. Although Prince2 is a

fundamental tool when undertaking any project from its conception to its delivery, and while we acknowledge that the mechanisms are business orientated (Great Britain, Office of Government Commerce, 2009), they can be applied to any research project.

As a way of explanation, there are four levels of management, all separate, but reporting to one another. The corporate or programme management level comprises those who commission the project, while the Project Board sets the direction of the project through the support of: the executive, who is responsible for the project; the senior user represents the interests of those who will benefit from the project outputs; and the senior supplier is responsible for the quality of the products and the integrity of the project. The board also sits within the project management team, which consists of the project manager and the team manager. The project manager is responsible for the day-to-day management of the operations set out by the board while the team managers are responsible for the delivery of the outputs, which vary depending on the size and purpose of the project.

One limitation of the PRINCE2 process within the context of a research funded projects is its transferability since it does not sit neatly in an academic context. However, it provides a structured approach and a workflow process for project managers with regards to the control of costs, timescales, quality, scope, risk and benefits. More importantly, it provides a process model (see example https://www.prince2.com/sites/default/files/prince2-process-model.gif) of all activities within a project, from setting up a project, directing a project, controlling a stage, managing a product delivery/stage boundary to closing the project.

The Education, Audiovisual and Culture Executive Agency (EACEA) provided support material and workshops for co-ordinators through practical guidelines for Life Long Learning (LLP), which included a successful project start up, LLP administrative and financial rules and management (EACEA, 2009). More recently, support has been delivered through the Guidelines for Administrative and Financial Management and Reporting (EACEA, 2012), which includes a project handbook, reporting templates and contractual documents. However, EACEA documentation also states that these are guidelines and an informal checklist only (EACEA, 2009; 2012). This raises a number of questions. First, it raises the question as to what extent the project leader responsible for co-coordinating a project requires knowledge of the rules and regulations set by the EACEA. Second, it raises the question of what being a successful project manager is and whether the roles of project manager and project leader are the same, or can be shared.

Mindful of the above mentioned challenges, the project management and project manager's identity within the SAS project was adapted as shown in Fig 1 below.

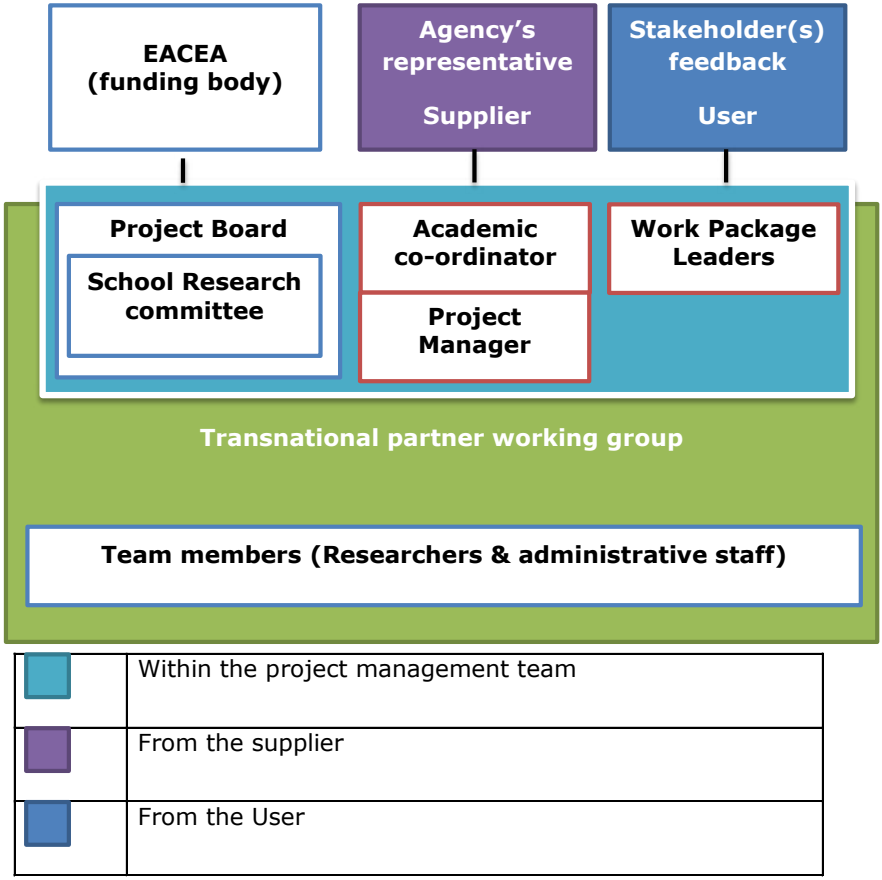


Fig. 1 – A representation of project management structure for the SAS project

Although there are similarities between the organograms in Fig 1 and Fig. 3, due to the specific nature of funded research, the SAS project is constructed in a very different way. The 'Corporate or Programme Management' is EACEA, the funding body, which still sits outside the project team. It commissions the projects, set tolerances (mainly financial), but it does not identify an executive leader or determines the project board as this is down to the lead applicant of the bid to set up the management team, partner organisations, work packages and financials. Ultimately, the EACEA approves or rejects the work packages, timescale and finances that are submitted by the lead applicant. As project leader, our University research boards (6 meetings an academic year) are kept up to date with the current progress of the project. In terms of the PRINCE2 process this aspect is the Pre-project stage, where the project proposal is justified against business objectives and competitive pressures.

The project management team is an interesting construction; the Senior User and Supplier (Agency representative) are outside the project board, but they directly interface with the management team. The project management team comprises the project board. The academic co-ordinator, or project leader, is accountable for decision-making and ultimately for the success or failure of the project, although issues around the direction of the project are a shared responsibility with the team members, in this case the work package leaders representing each partner organisation in the consortium. Given the nature of the work being undertaken, these tend to be academics although in the SAS project not all work package leaders were academics.

In regard to the way in which the SAS project developed, the major changes occurred in relation to the collaboration between the project manager and the academic co-ordinator, or project leader, as it will be explored in more details later in this chapter.

## Reflection on 'my' role and identity as a project manager

This section is written from my personal point of view of working on the SAS project as a project manager. The first lesson learnt through the two years is that no matter what the extent of one's experience of working at European projects or project management is, one is always learning new skills while facing both the usual but also new challenges as they occur. In explaining which challenges had to be faced in the SAS project, but also how the team found solutions and what role project management had, we can use Bienzle, at al.'s (2010) list of factors relevant for when undertaking a work on multilateral project.

**Coordination and leadership** – Traditionally, the responsibility of coordinating and leading a project rests with the Principal Investigator (PI) who is usually an academic. In terms of co-ordination the SAS project took a different approach whereby the project manager worked alongside the academic leader. This was to achieve a more business focussed 'strategic' approach to the research project and deliver more effectively on the work packages and on impact. Keeping the traditional aspects of project management, planning and dissemination alongside a more interactive and flexible approach, more commonly known as agile project management, and more commonly found in IT and engineering sector projects. Throughout this project both the Project Manager and the project Lead Academic co-ordinator have supported each other and took on a number of leadership roles to suit the circumstances. Therefore, the set of skills and competences each one brought to the project, included being a motivator, a good communicator, understanding different cultures, building a strong team and resolving conflicts in a constructive way. In this regard, knowledge between the project manager and the lead academic was shared and built upon horizontal rather than vertical hierarchical structures (Devecchi, 2007). In

so doing, the nature of the collaboration was developed within what Whitchurch (2013) identified as the 'third space'.

**Planning** - As with all multilateral projects the work was split into work packages and can be displayed via a GANTT diagram. In ensuring the success of the project, it is essential that all partners, whether WP leaders or researchers, are aware of the timescale, tasks to be fulfilled, expected results and more. In reality, the planning and implementation of the project was a little more problematic, but not surprising given the complex nature of multilateral and transnational projects. Given the practical nature of the experimentation, the implementation of the pedagogical proposal required more in-depth and flexible planning, exemplified by the key concept I used with colleagues of 'adapt and adopt'. This pragmatic approach meant that we were continually refining the processes and implementing the changes into each work package as changes occurred throughout the life of the project, such as staff turnover, access to schools and young people, recruitment, training and retention of mentors and young people, and the commitment and participation of stakeholders. In this respect the project manager supported the successful implementation of the project plan by reminding partners about their roles and responsibilities, ensuring communication and discussing with the project leader alternative strategic and operational measures.

**Administration** – The contractual aspects of EU projects like the SAS project are to be found in the Guidelines for Administrative and Financial Management and Reporting (EACEA, 2012). For the SAS project the additional administrative paperwork was something not to be taken lightly. In this context, the main role of the project manager was to communicate effectively the nature of the financial requirements and the submission deadlines. In order to do this, the project manager was responsible for setting up all the project documentation, from the financial reporting to the project plan review documents (in conjunction with partners), and setting up instruments to manage the risk, communication and dissemination strategies. The use of a personal daily log, which noted down the projects activities and reflected on their outcomes, whether positive or negative, was very useful as it provided a lessons learnt report or a great reflective tool which when bidding or working on other projects.

**Cooperation and collaboration** – The effectiveness of a European project is also judged in relation to whether the consortium of partners managed to work collaboratively and to what extent each partner contributed to the overall success of the project measured in regard to meeting the project proposed goals and outcomes. In addressing this point, we make use of McGregor's (1985) work, which summarised the feature of effective teams as follows:

- Informal, comfortable and relaxed atmosphere

- Group participation at every level
- There is disagreement in the group but this is viewed as good
- Criticism is frequent, frank and relatively comfortable
- Clear tasks set
- Team leader does not overshadow the discussion.
- Listening to each point of view
- The objectives are understood and accepted by all the team

An interesting and no less challenging aspect of any multilateral project is how diverse the team is, in terms of culture, language, different organisational backgrounds (i.e. universities and NGOs in this projects case), and their experience, expertise and expectations.

Teamwork can result in numerous positive benefits such as an increase in the expertise of the team members, an improvement of working processes through drawing on different skills and strengths, as well as increased creativity and collaboration. However, it can lead to higher work pressure in some instances (for example, in lean production) (Eurofound, 2012).

Good teamwork or collaboration, therefore, needs to take into consideration the fact that individuals and organisations bring with them their own agenda, whether this is made explicit or it is implicitly held. Such an agenda is made up of a combination of aspects including personal and organisational interests, and pressures, such as financial or teaching priorities. To ensure that all partners feel included, it is very important that all are willing and enabled to learn from each other and have mutual respect for what every partner brings to a project of this nature, and have shared ownership and vision. In order to maintain a good collaboration and partnership, the work package leaders and the project managers helped each other to review the ongoing progress of the project, reminding each other of deadlines. This form of knowledge management contributed to maintaining the flow of communication across the project partnership.

**Intercultural** - With regard to issues related to the inter-cultural dimension, a phrase, which I found useful to portray some of the misunderstandings was 'lost in translation'. This refers to those instances when the use of terminology, language and non-verbal behaviour can be misinterpreted and can slow the project down.  Projects like the SAS are intercultural

in nature and therefore understanding people's characteristics and behaviour can be at times difficult, but with patience and understanding any difficulties can be resolved.

The iceberg model of culture (Hall, 1976) can be a useful tool in these circumstances, where it shows characteristics of the culture of a society are visible, above water (behaviour and some beliefs), but mostly they are invisible, below the water (some beliefs, values and thought patterns). The iceberg model of culture indicates that everyone has preconceptions of cultures and this in turn initially can be difficult to work collaboratively at the start of any project. "However, anyone can develop some intercultural competence by becoming aware of the influences culture has on our own behaviour and on the behaviour of others, as well as by paying special attention to interaction situations taking place in an intercultural setting" (Bienzle et al., 2010, p.77).

**Virtual/ICT ways of working** – Given the importance of virtual and online means of communication and dissemination, it is not a surprise that EU projects require the setting up of such means. However, the use of technology in whatever format can be problematic. According to Perumal and Bakar (2011, p.93) "Advancement of technology could motivate project teams in terms of communication, team work and work efficiency. Adopting new technologies is crucial to sustained competitiveness for many organizations". For this project we used a range of technologies, such as, email, Dropbox, Skype, WordPress, LinkedIn, Facebook besides traditional Microsoft software.

While the use of technology can be a means of making projects more efficient, this works only if all partners have knowledge and experience of the software and of the social media to be used. For example, at the first kick-off meeting, the partners completed an information sheet, requiring their name, telephone number, email address and Skype name. Although Skype has become a widely-spread tool for communication, for some partners on the project it was new. Effective collaboration, therefore, also involves the project manager to be able to understand and support partners through the use of various pieces of technology. The role of the project manager, in this case, involves that of a teacher, but also a technician who ensures that everyone accesses the information securely and that data is backed up. While the SAS project did not make use of all possible virtual means, it is useful to consider the use of productivity tools, such as: workflow software; web-conferencing applications; Customer Management Service software (CMS) and other blogging applications.

**Quality assurance** - Quality is important in any project and particularly funded projects as the funding body needs to be reassured that the money was spent efficiently and effectively. More strictly in research terms, quality also includes the reliability and trustworthiness of the findings, and the impact the research has had on the stakeholders and users. Quality,

transparency and accountability are key factors that all EU commission projects strive for and the SAS project is no different. Although Workpackage 7, led by CIES-IUL in Portugal, was responsible for the overall evaluation of the project, the project leader and project manager ensured that there was a consensual agreement on the methodology to be used, monitored the experimentation and data collection, ensured timely delivery of quality outputs, and supported the development of the overall evaluation.

**Impact evaluation** - European co-financed projects place significant importance on impact and sustainability. EACEA is keen to see the results of projects to the widest possible audience and entwined with this is dissemination and exploitation to help maximise the impact. In order to be successful it is of importance that the SAS project results needs to be spread and embedded and the EACEA regards

> *'the twin activities of dissemination and exploitation, also known together as valorisation. Their key objective is to maximise the impact of project results by optimising their value, strengthening their impact, transferring them to different contexts, integrating them in a sustainable way and using them actively in systems and practices at local, regional, national and European levels' (EACEA Education, Audiovisual and Culture Executive Agency, 2007, p.20).*

Despite much academic debate on its nature, impact should be quantifiable, reportable and/or make a difference on people's lives. In relation to the SAS project we ensured impact throughout stakeholders' meetings, our mentors who engaged with schools and more importantly the young people. Other impact results were the on schools, organisations, teachers and policy makers across the 6 partner countries and 7 organisations. As impact is a very important measure of the quality of the project, the role of the project manager is pivotal in ensuring that, in collaboration with the project leader, they develop a clear strategy and an efficient operational plan. Having an agreed focus and shared responsibility was very important because an innovative European project like the SAS project required excellent internal and external communication with partners' institutions, partners' stakeholders, policy/decision makers and the general public.

## Conclusion

The external environment has changed and has become highly competitive. In turn funding bodies are being more selective of who is granted their money. This has seen universities in the UK and in part across Europe adapting their goals and missions, redefining internally the expectations and behaviours of employees to generate income. This new 'business-like' way of working under increased economic pressure to deliver income, sits

uncomfortably against a long-standing tradition of research. To be successful in gaining funding grants to delivering a project requires expertise in this stimulating and unwavering research environment that the role of Research Management and Administration (RMA) has become a key part in delivering projects successfully.

The experience gained throughout the SAS project, however, shows that the presence of a project manager is not necessarily successful unless other factors are taken into consideration. The first and most important factor is that of creating a partnership between project managers, usually located within the administration, and the project leader and research partners, usually located in the space of academia. The ability to break down such professional boundaries affords benefits to both. From the perspective of the lead researcher, the administrative and management support is invaluable. Yet, the quality of that support depends on the extent to which the project leader is willing and able to share with the project manager the mission, goal and vision of the research to be undertaken. From a project manager's point of view the opportunity to gain a more in depth knowledge of the nature of the project enables him or her to provide more targeted support when needed. In so doing, project leader and research partners and project managers blur some of their roles while enhancing others to the benefits not only of the quality of the final outcome, but also to the benefits of the end users and stakeholders.

In conclusion, a project manager has an important role in providing a rewarding funded project that trans-disciplinarily builds cooperation across sectors and delivers and social impact. The chapter asked the question of 'business as usual', thus drawing attention to the present problematic relationship between the role of academics within a changing environment which is becoming progressively more 'business-like'. The way the project management developed throughout the SAS project shows that it is possible to act in a business manner without losing or compromising the nature and quality of academic research. Yet for this to happen, the project manager and the lead academic (and by extension the other academic partners) need to re-configure their roles and professional identities. In doing so, they construct a team which is not defined by traditional power structures cast within hierarchical roles, but make use of the knowledge within the team in a pragmatic, flexible and purposive way. Through a process of democratisation of knowledge, the role of the project manager borders with and, at times, trespasses into the territory of academia. Yet, such a move is to be welcome so as to ensure the project's success and future sustainability.

## References

Barber, M., Donnelly, K. and Rizvi, S. (2013) An avalanche is coming: Higher education and the revolution ahead. IPPR [online]. Available from: http://www.ippr.org/assets/media/images/media/files/publication/2013/04/avalanche-is-coming_Mar2013_10432.pdf [Accessed: 03 October 2014].

Bienzle, H., Hedman, E., Kirtley, R., Purokuro, V., Rus, C., Wiesinger, S. and Wilen, E. (2010) Survival kit: Managing Multilateral Projects in the Lifelong Learning Programme. "die Berater" Unternehmensberatungsgesellschaft mbH [online]. Available from: http://www.european-project-management.eu/fileadmin/images/Survival_Kit_EN.pdf [Accessed: 03 October 2014].

Bramble, P., Devecchi, C. and Brown, J. (2014) Shaping the future of educational research: collaboration between academics and project managers. Paper presented to: European Conference on Educational Research (ECER) 2014: The Past, Present and Future of Educational Research in Europe, Porto, Portugal, 01-05 September 2014. Available from: http://nectar.northampton.ac.uk/6937/ [Accessed: 03 October 2014].

Corcoles, Y. R. (2013) Intellectual capital management and reporting in European higher education institutions. Intangible Capital, 9(1): 1-19

Devecchi, C. (2007) Teachers and teaching assistants working together: collaboration, support and inclusion in a secondary school. PhD thesis, Faculty of Education, University of Cambridge

EACEA Education, Audiovisual and Culture Executive Agency (2012) Lifelong Learning Programme. EACEA [online]. Available from: http://eacea.ec.europa.eu/llp/ [Accessed 1 December 2014].

EACEA Education, Audiovisual and Culture Executive Agency (2007) Lifelong Learning Programme: Project handbook. EACEA [online]. Available from: http://eacea.ec.europa.eu/llp/projects/reporting/documents/project_handbook_LLP_20080529.pdf [Accessed 1 December 2014].

EACEA Education, Audiovisual and Culture Executive Agency (2009) Practical Guidelines for LLP Erasmus coordinators. EACEA [online]. Available from: http://eacea.ec.europa.eu/llp/erasmus/documents/guidelines_for_llp_coordinators_project_start_up.pdf [Accessed 1 December 2014].

EACEA Education, Audiovisual and Culture Executive Agency (2012) Guidelines for Administrative and Financial Management and Reporting 2012 (Annex III/IV of the Grant Agreement). EACEA [online]. Available from: http://eacea.ec.europa.eu/llp/beneficiaries/2012/reporting_lifelong_learning_2012_en.php [Accessed 1 December 2014].

Eurofound (2012) Fifth European working conditions survey. Publications Office of the European Union: Luxembourg.

European Commission (2014) Erasmus+ Programme Guide. European Commission [online].http://ec.europa.eu/programmes/erasmus-plus/documents/erasmus-plus-programme-guide_en.pdf [Accessed 1 December 2014].

European Commission (2013) HORIZON 2020 Work Programme 2014 – 2015- 17. Communication, Dissemination and Exploitation. European Commission [online].http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1587808-17._com_diss._and_

exploit_wp_2014-2015_en.pdf [Accessed 1 December 2014].

EUR-Lex (2006) Access to European Union law Education. EUR-Lex [online]. Available from: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2006.327.01.0045.01.ENG [Accessed 1 December 2014].

Great Britain. Office of Government Commerce (2009) Managing Successful Projects with PRINCE2. 5th Ed. London: TSO.

Green, J. & Langley, D. (2009) Professionalising Research Management (Higher Education Funding Council for England)

Guardian Professional (2014) Academic ideals are being crushed to suit private-sector style management. [online]. Available at: http://www.theguardian.com/higher-education-network/blog/2014/feb/02/academics-management-university-private-sector [Accessed: 03 October 2014].

Hall, T. E. (1976) Beyond Culture. Garden City. New York: Anchor Books.

Hinde, D. (2012) Prince2 Study Guide. Chichester: John Wiley & Sons.

Langley, D. (2012) Research Management and Administration: A Reflection of Where We Are and Where We Need to Go as a Profession. Perspectives: Policy and Practice in Higher Education. 16(3), pp.71-76.

Lock, D. (2013) Project Management. 10th ed. Surrey: Gower.

Mcgregor, D. (1985) The Human Side of Enterprise: 25th anniversary printing New York; London: McGraw-Hill.

Mullins, J. (2005) Management and organisational behaviour. 7th ed. Harlow: Financial Times Prentice Hall.

Perumal, V. R. and Bakar, H. (2011) The influence of Technology: Factors motivating project management team successfully. International Journal of Economics and Management Sciences. 1(5), pp.92-96.

Petford, N (2013) Surviving an avalanche: universities need to move in the right direction. Guardian [online]. Available from: http://www.theguardian.com/higher-education-network/blog/2013/apr/04/higher-education-growth-avalanche [Accessed: 03 October 2014].

Whitchurch, C. (2013) Staffing models and institutional flexibility. London: Leadership Foundation for Higher Education

« BACK TO CONTENTS