Foreword

Throughout a career in the Royal Air Force spanning almost 40 years, ranging from operational aircraft maintenance engineer and to the Chief Executive of the RAF Logistics Support Services Agency, I have been involved in the creation, maintenance and exploitation of logistics information to provide improved support to complex platforms and equipments. As the CE LSSA in 1997, I ‘owned’ the data collected from the RAF corporate information systems and applications that managed engineering and asset management, inventory management, technical documentation and item codification. Each of these systems and applications held data about the same ranges of equipment; some of the data items, such as product description, were the same, and some were peculiar to the application requirements. However, it was impossible to integrate the outputs from these systems to derive a coherent view of the performance of an equipment and its support environment. The benefits to be gained from resolving this issue were self evident but the technology was not available. In the absence of a suitable integration mechanism, we were obliged to resort to manual manipulation of data and graphical presentation which demanded a high degree of user interpretation and deduction of performance relationships.

In 1999, I joined LSC Group and began to understand the potential power of data standards to provide an exchange mechanism for complex engineering information between disparate systems. 1999 was also the year when the PLCS initiative was launched to extend the scope of ISO 10303, the Standard for Exchange of Product Model data, from exchange of CAD/CAM data to address the more complex performance and feedback requirements for a product and its support environment throughout the in-service phase of the product life cycle. Over the intervening seven years, I have seen PLCS develop into a highly robust information exchange standard, which has the structure to capture all of the data elements from the wide range of disparate logistics information systems and applications in an open neutral format. I have been personally involved as a defence logistics subject matter expert
in the development of the various LSC Group STEP/PLCS proofs of concept and early demonstrators, and I remain excited by the emerging capability that the use of open standards offers to address the information integration challenges that I left behind in 1999.

However, on the down side, I have been less than excited by the resistance to recognise the potential benefits from the adoption of a standards based approach to information integration by both the MoD and Industry at large. There are many reasons for this, some associated with natural resistance to change, others associated with commercial and vested interests, but the main reason is lack of awareness of the potential power and availability of information standards to meet today’s and tomorrow’s challenges. There is also a view that the development of information standards is a specialist activity, far divorced from the realities of practical logistics engineering and conducted by ‘anoraks and geeks’, speaking a different language to the real world. Having had a foot in both camps over the years, I can partially sympathise with this view, but I also recognise how far the role of standards has come in providing workable solutions to the underlying issues of data integration.

Hence, I see this work by Josephine as being both timely and of crucial importance in identifying the reasons behind the resistance to adopt open standards more widely and in recommending guidelines to facilitate and accelerate the process of standards adoption. The decision to combine two established approaches into a single research methodology was innovative and courageous, requiring original thought and concept development to derive a coherent framework that could be tested and validated through case study research and direct feedback from interviews and questionnaires. This approach proved to be successful, providing Josephine with good qualitative information upon which to base her findings and recommendations, a factor which will be of increasing importance as other bodies pick up and take forward this research. I am aware that in the course of her research, Josephine has engaged with many eminent specialists in the data standards world, in industry, in academia and throughout the MoD, and she has gained their respect for her understanding of the issues, the thoroughness of her work and the positive recommendations for the way forward. This will carry great weight in the near future, and I look forward to seeing this work becoming a standard reference during the inevitable ongoing debate over the adoption of data exchange standards.

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Ian Sloss joined the Royal Air Force in 1963 as an Aircraft Apprentice and was commissioned in 1969 following an Engineering Cadetship at the RAF College, Cranwell. He followed a traditional aircraft engineering management route, working on Vulcans, Tornados and Victors, and covered front line operations through to deep maintenance with staff tours in Munich and London. In 1988, he attended the Joint Services Defence College, Greenwich and in 1994 he was appointed as Commandant, No 1 Radio School and Station Commander, RAF Locking, serving as Aide de Camp to Her Majesty, The Queen. He was promoted to air commodore in 1996 and posted to RAF Wyton as Chief Executive of the Logistics Support Services Defence Agency. Since his retirement from the RAF in 1999, he has worked for LSC Group, primarily responsible for the management and development of an advanced technology team.