COUNTRY PAPER – IT AUDIT SEMINAR SLOVENIA

WHY IT PROJECTS FAIL – A RESPONSE FROM THE ECA (EUROPEAN COURT OF AUDITORS)[1]

1. The ECA would like to respond to the UK's lead paper in two ways:

- Firstly to comment on the concept of the success or failure of an IT project;
- Secondly to draw on our own experience of auditing major IT projects of our principal audit client.

The UK NAO has drawn on their experience of a large number of IT projects, most of which are large scale; we offer our contribution from two related projects, of a much smaller dimension, but feel the problems exhibited are similar

What is Failure?

2. IT projects are often judged to be failures because they either overshoot the original cost estimates or budget allocated to them or are delivered after the deadline date foreseen in the original planning. Often they do not meet either of these measures and are so doubly deemed to be failures. We wonder though, is this not too simplistic a view of the issue?

3. Before one can speak of an IT project as having failed, one must first determine the criteria for measuring success or failure. Clearly delivery on time and within budget should still remain as major factors, as these are the benchmarks typically used by persons external to the project, but other equally important elements could be brought into play. From the user viewpoint, the most important consideration is to

have a system delivered to them, which meets their needs, according to their specification, and actually works. From time to time this factor is sacrificed, or at least eroded, to satisfy the overriding goals of cost and deadline dates. Many users, we feel, would be happy, or at least would tolerate, a certain amount of additional cost and/or delay in order to have something that actually does the required job in an acceptable and user friendly manner. It is too simple to judge a project on absolute time and/or cost overruns. It may be perfect sense to trade off slippage on these elements in return for the delivery of a system, which functions and meets the original needs of the users.

4. Consequently we suggest that the main criteria for ranking IT projects as successes or failures should be:

- the functioning of the new system;
- delivery on time;
- remaining within the cost envelope.

5. These elements are not absolutes and are interrelated. One cannot simply tick them off one by one and say ‘eureka’. It is a value judgement - the user may be 95% satisfied with the system, in terms of how it meets his/her needs; delivery may have been late, but not so late as to have caused unacceptable consequences; costs may have turned out to have been over budget, but not disastrously so – overall the judgmental view may be one of relative success. It could be seen as a balancing act, in which the elements are traded off against each other and the final judgement is one of weighing up the overall picture.

6. The question then to explore is - what can be regarded as acceptable in this balancing act to for the project to be judged a success. This may turn out to be very much an individual matter, which may vary not only from user group to user group but also from project to project. Despite this individualisation can we not draw up some common ground, guidelines or parameters to help us in this review process?

7. As an illustration, a tool has been incorporated in the radar chart in Annex1, where cost overrun (in percentage terms) is plotted against time overrun (in months) and system satisfaction (x percent). In practice the last element is taken as dissatisfaction (100-x). The ideal project would be at zero (the origin) and movement along the axes represents the trade off of one factor against the other two. Project C seems to be a bad result on all counts, but A and B could be successes – a value judgement of system satisfaction against cost overrun, as indicated in the notes.

8. As a final thought, we are not seeking to excuse the excesses of really bad IT projects. There will be cases, sadly too many, of disastrous cost and time overruns, which can in no way be mitigated by user satisfaction with the final product – in fact, delivery so late should cause the user to refuse to award the project with a label of success. Instances of poor planning, inadequate user specification, non-existent project management, lack of control over costs and failure to take appropriate account of external factors will still occur to a sufficient degree to render the project a failure. It is to be hoped, however, that we can learn from our own and others' past mistakes and try to minimise the problems for current and future projects.

The ECA's experience in IT projects

9. The ECA's role is to audit the legality and regularity of EU revenue and expenditure, which in practice means our major audit 'client' the European Commission plus a number of smaller institutions and decentralised agencies. IT reviews are not generally carried out separately, but integrated as part of our normal audit activities. A horizontal unit, however, does conduct reviews of major systems and assists other audit teams in this area as and when required.

10. Within this context, we limit the discussions for this paper to two IT projects launched by the Commission. Twice in the last 15 years they have undertaken major IT projects to acquire a new accounting system, with the later version including integrated budgetary and information systems.

11. The first of these projects (SINCOM) was launched in 1983 with a series of objectives aimed at delivering a management tool, which would increase the speed and productivity of the accounting services through modernisation and computerisation. By 1990 certain parts were in production including the budgetary and accounting module but not then covering all areas. In 1992 the project was relaunched in two stages and divided into four sub-projects and less than two years later the Commission were talking of developing a new system (SINCOM 2).

12. The ECA, in its Annual reports for the financial years 1991, 1992 and 1993, commented on the first SINCOM project, having examined the system both whilst in development and in production. It pointed to weaknesses in the general internal controls of the computer environment and also in the controls specific to the SINCOM budgetary application. The time taken to achieve decentralisation of the accounting

function, one of the major objectives, coupled with integration of the component modules was too long. The Commission was faced with the difficult task of trying to complete the development of a system which was already in production. Finally no effort had been made to rationalise or update the complex legislatory framework, which underpinned the financial practices into which the new accounting system was being implanted.

13. The project to develop and introduce SINCOM 2 was started in 1993 following a feasibility study; it was scheduled to go into production in 1997 but only did so in 1999 and not to its full extent. The ECA conducted a first review of the project in 1998-1999 during the development phase and as the first parts were coming on stream, and followed this up with a review of the logical access arrangements of the SAP based system.

14. Despite following the Commission's own project management guidelines, the project management was found to be less than ideal with the role of the steering committee being uncertain. Some measures were taken to remedy these difficulties and the technical quality reviews did manage to detect the main problems at an early stage. User involvement was also noted not to have been as extensive as it could have been. Listening to the various components of the user population, both in the definition phase and during the development and testing phases, is vital for the delivery of a system which meets their needs and also for user acceptance.

15. Nevertheless the project did experience a significant time overrun of at least 18 months, although the existing system continued to function during this period thus avoiding a breakdown situation. This could well have become critical if the situation

had continued because of potential year 2000 problems with the original SINCOM system. Cost control and accounting measures were insufficient to ensure an adequate flow of information to the project steering committee, and so it was not possible to establish the precise extent of the cost overrun.

16. One of the main objectives of the project was to have an integrated budgetary and accounting system with a unique access and an interactive convivial dialogue. The solution actually implemented, as it comprises three components each with its own access method, did not meet this objective. Problems were also experienced with the interfaces between the three sub-systems. Other objectives including reinforced security arrangements were not met or were abandoned.

17. During the design and development phases, little or no attention was given to the possibilities or potential for changing the financial regulations, which form the legal basis to which the accounting system must conform. In a wider context no real effort was made to reform the way the Commission services administered the accounting function, which is even more surprising considering that the core of their new system was one that required business process reengineering to ensure that maximum benefits could be realised.

18. The ECA's review of the logical access system revealed a number of weaknesses in these arrangements, including lack of clear separation of functions for key personnel, unclear definition of user profiles and not changing default passwords. Once the appropriate priority was given to these vital issues, the Commission took remedial measures.

19. The next questions to examine are - whether lessons were learnt or not from the first project and whether this experience was used to good effect in the management of the second project. Unfortunately we were forced to conclude that, in general, this was not the case. The same mistakes appeared again with SINCOM2 as had been the case with the original SINCOM, notably:

- the project was too complex and large spreading over too long a time period;
- there was a lack of real control over the costs;
- the opportunity was lost to undertake a reorganisation of the core business processes

However, some improvement was observed in the management of the project and user involvement, although, as noted above, this was still less than ideal.

20. The lead paper by the UK set out a number of factors for success (or failure) some of which can be seen as relevant in this examination of the SINCOM2 project.

- it did not deliver changes in the way the accounting functions were conducted
- it was a long project which could have benefited from being divided into subprojects
- the leadership and management was barely adequate and could have been improved with specialist assistance in project management skills
- the relationship with the principal supplier caused difficulties at a particular stage and efforts were required to improve this in order to make further progress

21. Finally we review the SINCOM2 project for success according to the three criteria proposed by us above.

22. The system actually works even though not all functions, which were originally requested, are operational. User satisfaction has been growing with familiarity, as more features appear and problems are ironed out. Difficulties still exist with access to information via the data warehouse. The time overrun was significant but did not cause a disaster, because the Commission was able to continue using the previous system. Costs did exceed the original budget but the precise extent of the overrun could not be accurately established.

23. Overall one cannot rank the project as a failure because the users were supplied with an operational system, despite the significant time and cost overruns. Whether it can be regarded as a success is a different matter – a question of judgement which could well vary according to the assessor. The project could have been developed and managed better, but we hope lessons have been learnt this time for future projects.

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[1] This paper represents the personal view of the author only and does not reflect nor engage the official view of the European Court of Auditors.