

# Spreadsheets: Swiss pocket knife or boomerang?

SPREADSHEETS ARE SOFTWARE DEVELOPED BY NON-PROFESSIONAL PROGRAMMERS. THEY ARE USED FOR ACCOUNTING, PROJECT MANAGEMENT, RESOURCE PLANNING AND MANY OTHER BUSINESS APPLICATIONS. **OFTEN AN INDIVIDUAL WILL MAKE THE FIRST VERSION FOR HIS/HER OWN USE. WHEN THE SPREADSHEET PROVES USEFUL, IT IS SHARED WITH OTHERS, AND FURTHER DEVELOPED TO BECOME A FULLY-FLEDGED BUSINESS-CRITICAL APPLICATION.**

**H**owever, spreadsheets are notorious for their sensitivity to errors. Serious errors in the many calculations that are carried out under the visible surface can emerge when processed poorly. Research shows that around 50% of spreadsheets used contain major errors. This may result in irritating failures - such as wrongly counted votes or double counted incomes - but also in major calamities. A good example is the collapse of the Jamaican bank system - the result of spreadsheet errors. This is something which could also happen in London City.

Many managers feel uncomfortable about the widespread use of spreadsheets, particularly given their sensitivity to errors. To what extent do operational processes depend on spreadsheets? What is the chance of financial or other damage as a result of errors? Which measures should be taken to manage these risks? Can the manager be confident that all spreadsheet users within the organisation take their responsibility for the accuracy of calculations that they carry out with these spreadsheets and the reports that they create?

## Accountability

Managers must be accountable for the way in which information technology is applied within the organisation. This includes spreadsheets. But which measures have to be taken and by whom? Therein lies a dilemma. The CIO is the appropriate person to identify and manage IT risks, but spreadsheets are usually not developed and managed by the IT department.

Can the CIO take responsibility for activities not carried out under his authority? When the IT department restricts itself to offering instruments for the controlled development and maintenance of spreadsheets, who oversees their use? And can an accountant, planner or option trader use such instruments?

It would be easy to simply ban the use of spreadsheets for supporting operational processes, to insist that all information tech-

nology is purchased, developed and managed through the IT department. This approach would ensure risk-controlling measures, such as architecture reviews, code inspections, tests and the handling of incidents cannot be evaded.

However, such draconian measures would be largely unenforceable. Spreadsheets owe their popularity to their low skill entry level and ease of adjustment. In field experts can quickly automate all kinds of actions without the intervention of third parties. A ban on spreadsheets would almost certainly make an organisation far less decisive and flexible.

## Analysis tools

Restricting the risks of spreadsheets without losing their strength through a ban or stifling control measures is challenging. However, through reviews of work processes critical dependencies on spreadsheets can be identified. Errors can be identified with analysis tools.

Complex, organically grown spreadsheets can be matched with business-wide construction principles that restrict the sensitivity to errors through a specific restructuring. And new errors can be dealt with through simple QA protocols, based on reviews by colleagues, supported by automatically generated change reports. And redevelopment with a different technology can then be considered for the most critical spreadsheets.

The CIO cannot be uniquely responsible for this challenge. Adequate use of spreadsheets is an administrative responsibility that must be primarily placed with the owners of the operational processes in which spreadsheets play a role. The IT department has a duty support them in this respect.



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