

Setting Standards for Transparent Financial Modelling

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Financial modelling can appear to be an art as much as a science to anyone who is not a modeller. Clients of modelling consultants often have little insight into how the model is constructed and no way of changing it without help of the consultant. This leads to models that might be very accurate and powerful but those that the client still does not feel entirely confident in: black boxes that only experts can operate.

This article reports what happened when City of Edinburgh Council decided to adopt the FAST Modelling Standard for a financial modelling project. It is based on interviews with staff at City of Edinburgh Council and Ernst & Young and looks at why a change in established working practices was desirable and what the effects of the Standard were on the project and the staff involved.

The traditional model: a black box

Many financial models are built using Microsoft Excel or other spreadsheet applications. Spreadsheet tools are ubiquitous in offices and easy to get to grips with. But the tool does not impose any structure on the model, and it is easy for modellers to create functional but obscure models, essentially black boxes. Models of this type waste time and introduce unnecessary risks to the modelling company and its clients.

The black box approach to modelling puts the responsibility for building, maintaining and using the model with the consultant. Should the model be flawed or incorrectly used, the client may take legal recourse. Letting the consultant carry the main risk of the model is comforting to the client, but the side effect is that they often cannot interact with the model but must pay the consultant to do this.

Financial modellers are made on the job, not trained

There are good reasons for why the financial modelling industry has developed to work the way it does. Financial modelling as a practice does not sit within any one discipline: practitioners come from many different educational and professional backgrounds. There is

no central body that certifies or guides financial modellers or the models themselves. Instead, each individual or organisation is forced to create its own approach and procedures.

Within large organisations, established approaches and procedures are taught to new staff to ensure that accumulated knowledge is propagated and that the competitive advantage that effective practices give them are maintained. It saves time when a model can be understood and maintained by anyone in the organisation.

When an employee moves on to another company they either take the learned approach with them, or have to learn a new one. As a result, even individuals working in the same team may be unable to easily understand or maintain each other's models.

City of Edinburgh Council adopts a standard

In 2009, City of Edinburgh Council decided that they wanted to change the way they worked with modelling contractors. In the past, they had commissioned models from consultants who built and maintained models for them. Whenever they wanted to change a scenario or needed a new or different piece of data from the model they would pay the consultant to provide them with the requested output. Turnaround times were good, but there was, by necessity, a delay in framing the question and getting the answer.

Repeatedly, specific problems were highlighted:

- team members couldn't understand or operate models,
- teams responsible for providing data to decision makers could not always answer questions asked about models or their outputs, and
- having to repeatedly go back to the consultants slowed down decision making and introduced levels of uncertainty in the decision-making chain.

Councils are coming under increasing pressure to save cost. As in the private sector, councils are asked to be more efficient and cut spending. Moving some of the functions that were previously outsourced in-house is one response to this pressure. CEC hoped to improve the turn-around time of questions and answers by training their staff to use the models they commissioned. For this to work the models had to be as simple to interpret and use as they could be.

To this end, CEC issued a financial adviser tender from Zero Waste (a joint residual waste treatment procurement project with Midlothian Council) that specified that the successful consultant would have to apply the FAST Modelling Standard to the model that they produced.

The FAST Modelling Standard

An acronym for flexible, accurate, structured and transparent, the FAST Modelling Standard sets out best modelling practices based on a philosophy of what constitutes good model design and construction habits. The Standard evolved from the experience gained from over

a decade of financial modelling training courses conducted by F1F9 and Financial Mechanics, who jointly developed a set of rules that were simple, practical, and adaptable to a wide-range of modelling requirements. The standard, maintained by the FAST Modelling Alliance, is open and can be adopted by any organisation or individual modeller. Organisations worldwide use it to improve productivity and transparency.

The Standard specifies how to structure a financial model at several levels: how to order workbooks, organise spreadsheets and structure calculation blocks and formulas. The standard states that a consistent and structured approach speeds up model development while at the same time ensuring transparency. It makes the process of modelling, as well as the model, easy to follow.

There is a limited population of modelling standards, but FAST is not the only one: the Best Practice Spreadsheet Modelling Standards (BPS) from BMP Financial Modelling* was launched in 2002. BMP Financial Modelling offers training and modelling support in Australia, where the company operates. FAST standard courses are offered globally but most regularly in London.

To promote a more structured discussion, the FAST standard was re-launched in March this year. The new standards document and its accompanying website** are rules-based and actively invites visitors to comment on and discuss rules. The standard is updated every three months to incorporate the decisions that emerge from discussions.

The City of Edinburgh Council (CEC) first came across the FAST standard when sending staff to a training course given by Financial Mechanics. Financial Mechanics is a London-based financial modelling and training company that uses the FAST methodology.

Norman Drever, Principal Finance Manager for Strategic Projects and an attendee at the course, was impressed by the rigour and good sense of the FAST approach and became a vocal proponent for the standard. Being in a strong position to actively promote the FAST methodology, Norman has sent his own staff on the same training course and is overseeing implementation of the standard in Council projects.

The enduring popularity of the FAST standard within the CEC prompted its inclusion in the Zero Waste financial adviser tender. It was felt that a better understanding of the model would make the CEC project team better able to serve its internal customers.

Working better together

The Zero Waste financial adviser tender was won by Ernst & Young who have worked with City of Edinburgh Council before. This time, however, the two organisations would work together in a new way. The adoption of a modelling standard had several important outcomes:

- To comply with the standard an existing model had to be re-built,

- The relationship between CEC and Ernst & Young changed from one of buyer and supplier to one of members of the same team, and
- The new practices meant that staff in both organisations can focus on higher value work.

Ernst & Young already had a model that would meet CEC's needs but this was written to comply with their own internal best practices. The original model was complex and had been developed over several years. To comply with the FAST standard the model's objectives had to be stripped back to basics and the model re-built. The end result is a transparent model that comes within 0.1 per cent difference in answers.

In making the model more transparent, Ernst & Young had to work more closely with CEC than before. Instead of CEC being a client and Ernst & Young a supplier of models, the two organisations formed a project team that worked closely together, transferring knowledge between knowledge domains. The CEC team feel more in control from understanding the model better. More importantly, being able to manipulate inputs on the fly allows them to provide immediate decision support to their clients.

By accepting the risks inherent in using a model, the CEC team saves money for their organisation. Not only do they answer questions more quickly, but cut out the need to pay a consultant to find the answer for them. Intuitively, this may seem like a drawback for the consultant, but in the long run it doesn't have to be. Consultants can focus on building models, using their skills for the higher value aspects of their work. Meanwhile, the CEC team is also doing higher value work and providing a better service to their customers.

The benefits of standardisation

One of the members of the CEC team, Alasdair Black, Finance Manager at the Zero Waste Project, summarised the project team's experiences: "I think maybe some members of the project team were a bit apprehensive to take this on - it was potentially a big risk and it might have been safer to go down the tried and tested route. Now, the standardised approach is mentioned internally as a great thing and good value for money. It works well for everyone - we have had good feedback from the project board and the consultants are supportive of it."

Gordon Pollock, Project Manager for Zero Waste said, "As the client, high quality modelling support is non negotiable. Adopting the FAST standard has facilitated this service being provided internally. I have the full support and confidence I need. Also, a lot of money has been saved that would otherwise have been incurred on consultants".

Standardising the way the model was developed has ultimately benefitted everyone involved in the CEC project:

- The CEC project team has become more knowledgeable and can use the model themselves, speeding up internal customer service, improving confidence in the data underlying decisions and saving money on simple changes,

- Ernst & Young can focus on their key strengths,
- Ernst & Young and CEC have a richer, more rewarding relationship, and
- The learning curve for using or maintaining the model is shortened, improving work satisfaction and saving money for CEC.

Thanks to support from customers and consultants, the CEC project team met its objectives. They will continue to follow the FAST Modelling Standard and have decided to promote its use across the Council.

*Best Practice Modelling (<http://www.bestpracticemodelling.com>)

**Fast Modelling Standard (<http://www.fast-standard.org/>)

Kenny Whitelaw-Jones is a Director at Financial Mechanics, the financial modelling specialists. Whitelaw-Jones has 10 years experience as a financial modeller and advisor and now teaches modelling skills to clients all over the world. He is passionate about the development of standards in financial modelling and is a leading contributor to the development of the FAST modelling standard (<http://www.FASTstandard.org>) . He also presents a monthly podcast on financial modelling (<http://www.financial-modelling-podcast.com>) and writes for several financial modelling blogs.

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