

MANAGING MODELLING

HOW TO RUN AN EFFECTIVE
MODELLING TEAM



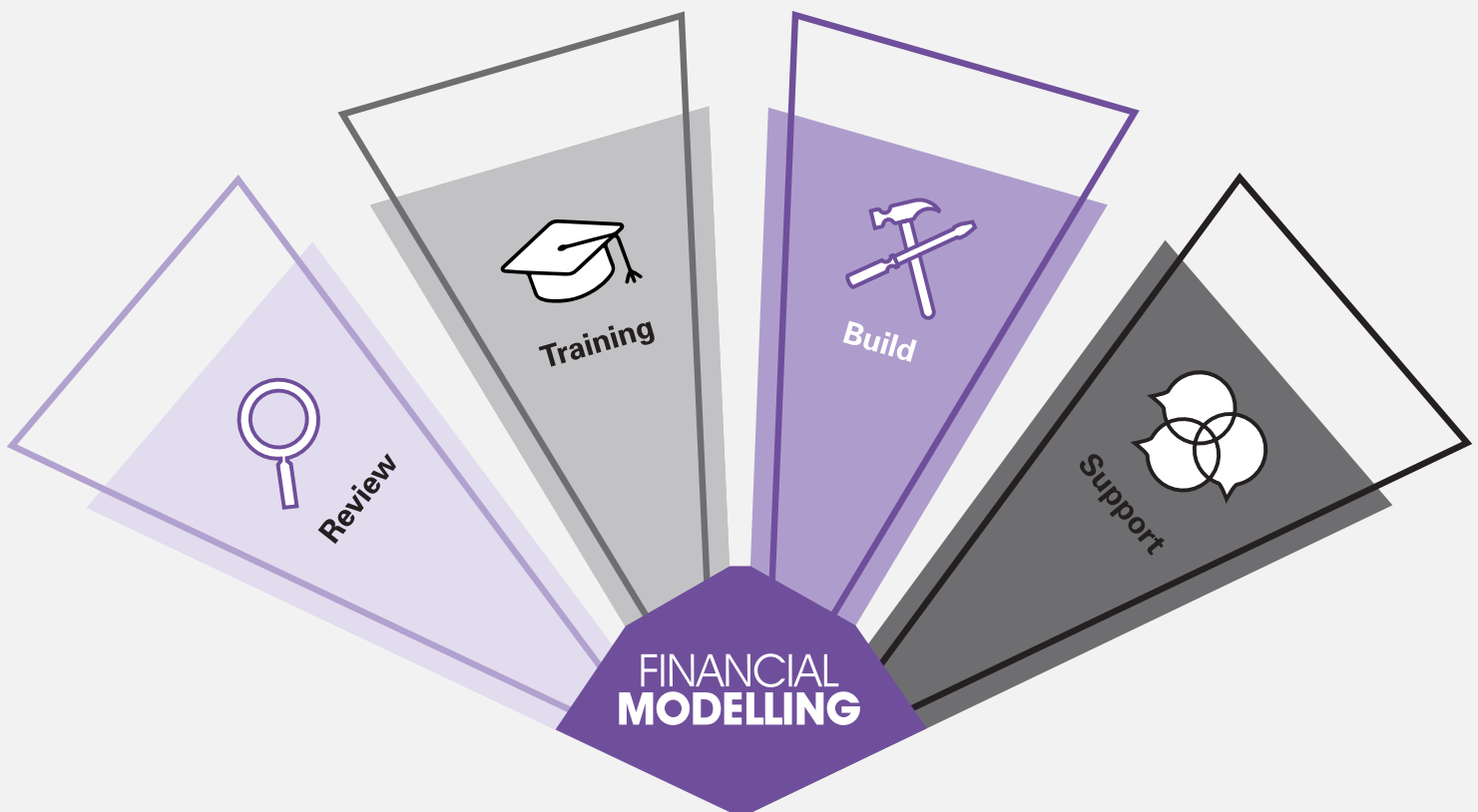
OVER THE PAST 20 YEARS
WE'VE HELPED DEVELOP
THE MOST WIDELY
ADOPTED, INDEPENDENTLY
ADMINISTERED FINANCIAL
MODELLING STANDARD
– **THE FAST STANDARD.**

We have taught our team to model following this standard along with over 20,000 people worldwide. We have built thousands of models using FAST and our customers are using them every day in their businesses.

Our Ebooks aim to show you new ways to collaborate and help you build financial models that solve your business problems.

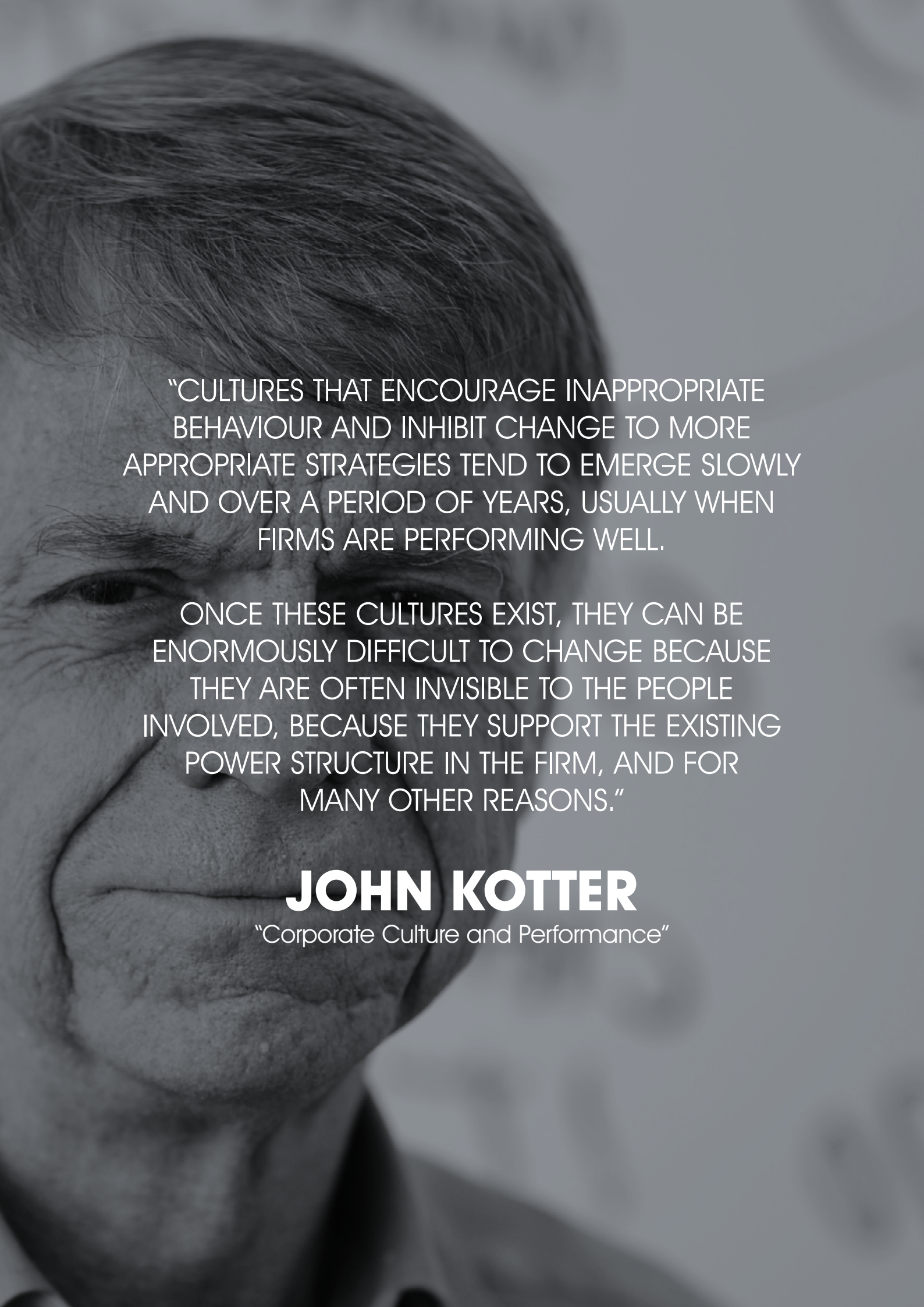
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"CULTURES THAT ENCOURAGE INAPPROPRIATE BEHAVIOUR AND INHIBIT CHANGE TO MORE APPROPRIATE STRATEGIES TEND TO EMERGE SLOWLY AND OVER A PERIOD OF YEARS, USUALLY WHEN FIRMS ARE PERFORMING WELL.

ONCE THESE CULTURES EXIST, THEY CAN BE ENORMOUSLY DIFFICULT TO CHANGE BECAUSE THEY ARE OFTEN INVISIBLE TO THE PEOPLE INVOLVED, BECAUSE THEY SUPPORT THE EXISTING POWER STRUCTURE IN THE FIRM, AND FOR MANY OTHER REASONS."

JOHN KOTTER

"Corporate Culture and Performance"

PF

ABOUT F1F9

F1F9 provides financial modelling and business forecasting support to blue chip clients and medium-sized corporates. We also teach financial modelling skills to companies around the world. Our clients have access to high quality, low-cost modelling support delivered by over 50 professional modellers.

F1F9 co-developed the FAST Standard that allows modellers and non-modellers to work together and understand financial models. Transparency is the core value that drives our modelling and our business activities.

ABOUT THE AUTHOR

Danny Leitch heads up the Project Finance and PPP team within F1F9. Danny has been involved in the financial modelling of major PF, PPP, Outsourcing and M&A deals for approaching 15 years.

During this time, Danny has developed and led financial modelling teams within industry, including the major bids modelling team at United Utilities, and has taken a leading role in the financial modelling of major transactions for accounting firms including Grant Thornton and Ernst & Young.



DANNY LEITCH
DIRECTOR, PROJECT FINANCE AND PPP

INTRODUCTION

Many, perhaps most, important business decisions involve some kind of spreadsheet analysis. Spreadsheets are ubiquitous in business.

In our Dirty Dozen ebook we've written about what can go wrong in spreadsheets in general.

READ OUR EBOOK

*THE DIRTY DOZEN:
12 MODELLING HORROR STORIES*

Over the years we've taught thousands of analysts how to build better spreadsheet models so that they might avoid seeing their company name in the media, connected to the next spreadsheet disaster.

Since 2005 we've been building one of the world's largest dedicated financial modelling teams with more than 50 modelling professionals.

We have prepared this ebook in collaboration with a range of leading industry experts from across the globe including representatives from advisory practices, industry and the public sector to bring as wide a perspective as possible.

Over the past 10 years we've learned that running an effective modelling team requires paying attention to 3 key areas: *Culture, Process and Team*.

We've called this the "Effective Financial Modelling Framework".



THE EFFECTIVE FINANCIAL MODELLING FRAMEWORK

THIS EBOOK SETS OUT OUR RECOMMENDATIONS IN EACH OF THESE 3 KEY AREAS:

FEATURES OF AN EFFECTIVE MODELLING TEAM



CULTURE

Senior Management are engaged and supportive and have a clear understanding of the complexities and risks associated with modelling.

The modelling team is valued and respected.

There is an open and honest culture, where modellers feel comfortable admitting mistakes and feel supported.

Modellers are allowed an appropriate work-life balance to keep them fresh and energised, and to reduce the risk of errors due to stress and fatigue.

Modelling is seen as a collaborative team-based activity rather than an individual activity.



PROCESS

Project management processes around modelling are clearly defined and implemented.

The modelling team follows a standard.

There is a structured approach to quality assurance.



TEAM

The modelling team have the appropriate skills and experience.

There is a systematic training programme in place covering model build standards and processes.

Roles and responsibilities within the team are clearly defined and understood.

The modelling team is appropriately resourced.



MANAGING MODELLING: **CULTURE**



CULTURE: MANAGEMENT EXPECTATION

SENIOR MANAGEMENT ARE ENGAGED AND SUPPORTIVE AND HAVE A CLEAR UNDERSTANDING OF THE COMPLEXITIES AND RISKS ASSOCIATED WITH MODELLING.

Your primary objective should be to educate senior management and secure their support. Without the buy-in and support of senior management, you may have little power to deliver upon any of the recommendations of this ebook.

"In too many organisations the modeller is the "geek in the corner", the only one who knows their way around the mysterious "financial model". Despite being entrusted with this responsibility, all too often the modeller is the most junior person in the team — who moves on to a "better" job as soon as the opportunity arises. We think this structure is fundamentally wrong and risk prone."

Jerome Brice, Mazars

It is the role of the financial modelling manager to educate and influence senior management.

As a financial modelling manager, you should consider the following:

1. Circulate the [*financial modelling horror stories ebook*](#) to attract attention.
2. Carry out a risk assessment in relation to the modelling you undertake and circulate your findings (see risk management section below).
3. Run a workshop on financial modelling for senior managers where they are shown the inner workings of a model, potentially including an error-spotting test to illustrate how easy it can be to get things wrong.
4. Find an influential sponsor on the board, make them ultimately accountable for financial modelling.
5. Create a realistic resourcing plan and secure resource appropriate to delivery of a robust modelling function (see resourcing section below).



CONTRIBUTOR INSIGHT: **KEY LEADERSHIP TRAITS**

Finding leaders who have been in the modelling trenches and have used advanced Excel in anger; and understand its many strengths and risks and limitations; is one of the biggest challenges facing modelling teams.

These people know what it is to be a modeller and understand the potential of their people. You can spot these people because they don't just want to build the skills of their financial modellers, but they want to create financial modelling professionals and leaders, and further the status of the profession of financial modelling.

Ian Bennett, Partner, PwC Australia

Ian has worked as a financial modeller for over 17 years in both the UK and Australia and leads the PwC Australia Deals Modelling practice.



CULTURE: MANAGEMENT EXPECTATION

THE MODELLING TEAM IS VALUED AND RESPECTED.

Good modellers are hard to find and even harder to retain.

"Finding a person with the right combination of skills for them to become a professional financial modeller is difficult. The best financial modellers are curious problem solvers, with a passion to understand the commercial purpose, and an acute attention to detail.

But the critical skill that modelling teams need is simple: deep technical modelling excellence in each individual AND collectively as a team. Without this combination of team consistency and individual brilliance there would be no modelling team. This means modelling teams must be constantly sharing experiences, trading war stories and cross-pollinating their skills.

It's also vital to be bold and to recognise and celebrate the team's technical excellence every day, both within the team, and also with our clients so they understand and appreciate the value."

Ian Bennett, PwC Australia

Losing good modellers from your team can cause significant disruption to delivery of your modelling service. They can also be extremely costly to replace, both in terms of recruitment costs and also the training requirements and time needed to bring new modellers up to speed.

Value your modellers.

Studies have long shown that although pay and conditions are factors in employees' decisions to move on, career progression, relationship with management and job satisfaction are consistently considered more important.

Communicate often – take time to chat to your team on an individual basis, get to know them and what is going on in their lives. Take an interest in each of them as an individual and not just as a modeller.

Give clarity on career progression – modellers are generally career-minded, motivated people, they need to understand what their next career move is and how to achieve it.

Give challenging work and a degree of autonomy – modellers are generally free thinkers who cannot bear to be micro-managed.

Say thank you – modelling is tough. You will be asking your team to go the extra mile again and again. The transaction environment can be stressful and extremely demanding. Make sure you say thank you – and mean it.



CULTURE: OPEN & HONEST CULTURE

THERE IS AN OPEN AND HONEST CULTURE, WHERE MODELLERS FEEL COMFORTABLE ADMITTING MISTAKES AND FEEL SUPPORTED.

Errors will happen. It is an unfortunate fact of life, but whenever humans are involved with complex data manipulation and modelling, errors will occur. A financial modelling manager needs to create an environment where any member of the modelling team can feel comfortable notifying them as soon as an error or mistake is identified.

Having confidence in your team, that they will inform you of any problems is the only way you will be able to sleep at night.

When you are told about a modelling 'glitch' your gut reaction may be a terrible sinking feeling and overwhelming desire to spring forth with a barrage of expletives. **Try to resist this urge;** it will not encourage the team to come forward with issues in the future.

The best response is to take a deep breath, say "thanks for letting me know, these things happen" and ask "how can we fix it and make sure it doesn't happen again?"

"In 2005 we set up the world's first offshore financial modelling team. There were, as you can imagine, a number of key challenges and questions. One was: how do we create a truly team-based and collaborative modelling culture? 10 years on, with 50 wonderful colleagues in New Delhi, I'd like to think we've done just that. With the benefit of hindsight, one of the key ingredients has been an unconditionally trusting and constructive approach to mistakes, specifically:

- *Expect mistakes. He who does not make mistakes, cannot be doing anything. Real learning comes from doing (not from spectating from the side-line).*
- *Share mistakes. Communicate mistakes immediately and widely. This both de-personalises them and may even impress the client.*
- *Learn from mistakes. Keep a "lessons learned" log — for others to read and learn from. Making a mistake once is part of learning, making it more than once means you're not learning. In my book this applies primarily to the organisation (and of course also to the individual).*
- *In the first instance: blame the teacher. To paraphrase Mr Miyagi from The Karate Kid, "No such thing as bad student, only bad modelling trainer".*
- *Ultimately: senior management – you only have yourselves to blame."*

Morten Siersted, F1F9



CULTURE: WORK LIFE BALANCE

MODELLERS ARE ALLOWED AN APPROPRIATE WORK-LIFE BALANCE TO KEEP THEM FRESH AND ENERGISED AND REDUCE THE RISK OF ERRORS DUE TO STRESS AND FATIGUE.

In a modelling environment, when people are tired, mistakes happen. It is so often the last-minute change to the bid, made at 2:00am on the day of submission, which causes the problems. Recognise this fact and act on it.

The occasional late night comes with the territory of a transactional environment, but if this is happening for a prolonged period, it can cause you serious problems.

WHAT CAN YOU DO?

Ensure that resourcing is appropriate to your modelling environment and have contingencies in place for times of peak activity.

Adoption of a shared modelling standard that facilitates collaborative working will assist with managing the peaks and troughs of transaction-related modelling, by spreading out the workload over multiple modellers.

This can avoid the situation of having a single 'super stressed' modeller as the only person who knows the deal in the run up to financial close, whilst her or his colleagues are available but unable to assist.



CULTURE: WORK LIFE BALANCE

MODELLING IS SEEN A COLLABORATIVE TEAM-BASED ACTIVITY RATHER THAN AN INDIVIDUAL ACTIVITY.

Building team spirit and a collaborative environment is fundamental to the role of a financial modelling manager.

For a modelling team to be effective, it cannot operate as a loose collection of individuals doing their own thing. It needs to be brought together as a real team, with a feeling that the members are 'all in it together' and will help each other out as much as possible.

Fostering a collaborative environment is an excellent way to enhance the effectiveness of your modelling team.

A collaborative team environment will help to:

- Manage peaks of workload by having multiple team members collaborating on a single model.
- Play to the strengths of individuals within your team.
- Share best practice within the team to constantly improve quality of output and develop robust operating processes.
- Increase team spirit and boost morale.
- Provide continuity.

Adoption of a shared modelling standard is **key** to achieving a truly collaborative modelling environment.

In addition, as a modelling manager, you should facilitate regular share-and-learn sessions, where team members present to the rest of the team on hot modelling topics.

You should understand the strengths and weaknesses of individuals within your team and use them effectively. For example, you may have someone who is extremely methodical and who is well-suited to quality assurance tasks. You may also have someone who is skilled at model structuring. A collaborative approach will allow the skills of each to be brought to a single assignment.

Finally and most importantly, the modelling manager must lead by example and never leave a team member struggling alone, modelling against a tight deadline.



MANAGING MODELLING: **PROCESS**



PROCESS: RISK MANAGEMENT

PROJECT MANAGEMENT PROCESSES AROUND MODELLING ARE CLEARLY DEFINED AND IMPLEMENTED.

It is important to define the framework in which the team operates.

This is not an exercise in creating a lever arch file full of procedural documents to be filed and never seen again.

This is about collectively agreeing the best way to approach financial modelling and then living and breathing the agreed approach.

WHERE PROCESS GOES WRONG

Too much or too little process can be a bad thing for your team.

With too little process, you are in a 'free for all' situation. People cannot work collaboratively, take forever to get up to speed and, even then, may be producing flaky and error-prone output.

Somewhat counter-intuitively, without processes you are not 'free to be creative' but you are instead shackled by the constant requirement for re-invention. **To be creative you actually need an enabling framework.**

With too much process, there is a danger that you stifle the team and stifle innovation. Pitching this right is a key challenge for the financial modelling manager.

Too much process most often leads to people ignoring the process which effectively puts you back in the 'free for all' scenario.

WHEN MODELLING PROCESSES ARE CLEARLY DEFINED

When modelling processes are clearly defined and implemented well, they will:

1. Provide a clear framework within which to operate
2. Provide a common approach which enhances flexibility and collaboration
3. Accelerate bringing new people on board
4. Enhance efficiency and quality of output
5. Reduce errors and risk
6. Enable continuous improvement
7. Free up your time to think creatively about the important stuff

From a process perspective, pick what is important, make sure it is clearly defined and embed it within the team.

MODEL BUILD PROCESS

The process of building a model will vary from organisation to organisation, and application to application.

In my experience, it is challenging and ultimately futile to prescribe a detailed step by step guide to building a model. This is due in large part to the generally constantly-evolving specification and requirements of the users of the model.

Instead, a broad outline of who does what and also a set of principles to apply to modelling assignments is generally more useful.

Of particular importance in the model build process is ensuring that the model correctly reflects the model user's requirements and the commercial realities of the deal. This requires a clear and well-defined interface between the financial modeller and the commercial specialists on the deal.

"Effective financial models are developed in collaboration with our clients and advisors. We are often involved where the financial model is at the heart of a transaction or business process, and we work closely with the rest of the project team, including technical and legal specialists, to develop a model that can be understood by the parties involved. This brings with it two key benefits: the first is that the financial model is not a "black box" that only a few individuals in the modelling team understand - the outputs of a financial model are only as useful or reliable as the assumptions upon which they are based (i.e. both the inputs and how those inputs are used). The second is that the modellers are able to gain a better understanding of the overall transaction, provide better advice to clients and this makes the work more rewarding."

Stuart Smith, GRANT THORNTON

CASE STUDY: HANDLING AN EVOLVING SCOPE

A particular challenge for financial modellers is the management of an evolving scope. The model build process should be designed with this in mind.

The following may not be untypical for a modeller in a large corporate where an initial, simple task escalates into something quite complex.

1. The initial purpose of the model is generally fairly clear – e.g. you are asked to create a valuation model for a potential acquisition of an equity investment based on limited information.
Create a simple model to value the equity cash flows at an appropriate discount rate. This may give an initial sighting shot of the potential price sought by the seller.
2. CEO, CFO and Strategy Director review initial outputs and require various sensitivities to be run. This may require some re-modelling to introduce new inputs (inflation, operational growth assumptions, pension contingencies, synergy savings...).
3. New information becomes available from due diligence, e.g. analysis of revenues/costs by division.
Incorporate the new assumptions. Produce a table of valuations under different sensitivities. This creates an initial range of potential valuations to aid in price negotiations.
4. CEO and CFO separately ask for sensitivities to be run.
CEO is interested in the impact of strategic development of some divisions.
E.g. what would the value of the various divisions be in 3 years' time under different growth assumptions?
CFO is interested in various funding options (share issue or debt) and the impact on the next 2 years' consolidated earnings and gearing using the Group's accounting policies.
Introduce profit & loss account and balance sheet with appropriate adjustments to reflect the Group's accounting policies. This will require additional modelling to incorporate accounting adjustments, funding and interest and tax calculations.

The model started out as a simple valuation of an equity cash flow but has soon developed into a complex strategic, funding and accounting model.

The modeller should anticipate the need for the model to have the flexibility to evolve.

Communications to and from the modeller need to be clear and unambiguous:

- the modeller should be clear what the required input assumptions and output requirements are for each iteration
- the model should clearly state the key assumptions made for each model run

In order to manage an evolving scope, at F1F9 we apply an 'Agile' approach to modelling assignments. This is explained within the ebook '10 principles of agile financial modelling'

READ OUR EBOOK
*10 PRINCIPLES OF
AGILE FINANCIAL MODELLING*



PROCESS: ADOPT A MODELLING STANDARD

MODELLING TEAM FOLLOWS A STANDARD.

Within the financial modelling function, adoption of a common modelling standard can be as transformational as the difference between night and day.

"Financial modelling has developed significantly over the years, particularly with the development of financial modelling standards and processes. We have found the use of a well-defined modelling standard has enabled our modelling teams to focus on the complexities of the project and how to best model these in a way that can be easily understood, rather than spending time developing complex and intricate coding."

Stuart Smith, GRANT THORNTON

Adoption of a modelling standard has the following significant benefits:

1. FAMILIARITY

All models look the same – as soon as you open a model, you know where to start with it. The structure is familiar, the way the calculations work is as you would expect. Your time can be spent analysing and reviewing the commercial logic of a model rather than deciphering the calculation logic cell-by-cell.

2. COLLABORATION

Operating to a shared modelling standard enables significantly enhanced collaboration between modellers. Models can be passed around the team to optimise resourcing. Models can even be broken up and worked on by multiple individuals simultaneously, thus dramatically increasing development speed.

3. SIGNIFICANTLY REDUCED ERRORS

A standardised approach to modelling will reduce errors. The effect is two-fold:

- a. Firstly, if modellers are working within a well-defined modelling framework, the likelihood of them making errors during the model build is significantly reduced.
- b. Secondly, standards such as FAST advocate a 'rule of thumb' whereby formulae are kept as simple as possible and should be 'no longer than your thumb'. This makes model review significantly easier, especially where the reviewer is also trained in the adopted standard.

"In order to remain competitive, companies are required to do more with less. In a highly dynamic business environment, it is critical that models quickly deliver reliable information to a range of different users beyond the initial developer. The models must therefore be transparent, auditable and flexible. This provides confidence that the result is reasonable and allows for rapid modification. The FAST Standard significantly reduces the reliance on original developers, minimising the risk of delaying projects with tight deadlines. This has led to improvements in modelling productivity at Sasol."

Charles Nash, SASOL

The key factors to consider in selecting a standard are as follows:

1. How well does that standard fit with your required type of modelling?
2. How well documented is the standard and to what level of detail?
3. How widely adopted is the standard, in particular by potential clients / partners?
4. Who owns and maintains the standard? Is it in the public domain or is it the intellectual property of a particular organisation?
5. What is the availability / quality / cost of training in that standard?

In my opinion there are currently a handful of modelling standards with a degree of traction in the market. These include FAST, Operis, and SMART.

Selection of the right standard is important, however the benefits of implementation of ANY good standard will yield significant benefits versus no standard at all.

For a guide on how to standardise modelling please see our ebook:

READ OUR EBOOK
HOW TO STANDARDISE
MODELLING

"Modelling standards and best practices have been critical to the development of PwC's modelling teams globally. The foundations are PwC's collaborative 6-stage approach to building models; our model design best practices; and our "Axis of Spreadsheet Evil".

These methodologies are instilled in our people through classroom training and continually through our projects, which creates standardisation and enables our teams to work better together.

Combined with embracing new technologies and automation, we can deliver models to our clients that meet their needs and are transparent and easier to understand." **Ian Bennett, PwC AUSTRALIA**



PROCESS: QUALITY ASSURANCE

THERE IS A STRUCTURED APPROACH TO QUALITY ASSURANCE.

A structured approach to risk management and quality assurance is vital. You need to understand the level of risk your organisation is taking in the type of modelling you are doing, and tailor your quality assurance processes accordingly.

The cost associated with quality assurance can range from additional internal resource through to the requirement for full external model audits.

The cost associated with the quality assurance should be considered in relation to the financial risk of potential errors.

For major transactions, where the costs and revenues are in the £millions or £billions and therefore the risk associated with errors is very large, the cost of an external audit may be immaterial compared to the peace of mind it provides. In addition, depending upon the commercial arrangement with your auditor (and how much you pay), it is possible to have the financial impact of any errors underwritten by them.

We have created a risk assessment app that assists managers in quantifying modelling risk and provides tips in managing those risks.

An independent assessment of the risk you are taking could act as a powerful tool in discussions with senior management in relation to the cost of any quality assurance measures.



TRY OUR APP
MODELLING RISK ASSESSMENT



CONTRIBUTOR INSIGHT: **MODELLING INTEGRITY IN THE DEPARTMENT FOR ENERGY AND CLIMATE CHANGE**

The Department for Business, Energy & Industrial Strategy (BEIS) established a Modelling Integrity Team (MIT) in summer 2013 to provide the department with a structured approach to model quality assurance.

The team started with our formal systems and procedures, redeveloping and publishing our guidance for both internal and external projects. They also developed a quality assurance log to record model testing and a risk-based scoring method of Quality Assurance.

A key next step was improving the standard Invitation to Tender to ensure work we commission, meets our quality assurance standard to make it easier to transfer models into our ownership.

Early on the team recognised that changes in culture take time, patience and a variety of approaches are required for different audiences. The team has successfully moved colleagues from dependence on them, towards independence by supporting others' QA work rather than doing it themselves it wherever possible. This really has helped to ensure the spread of knowledge and best practice. They set up a model QA league table; adding this element of competition has also changed behaviour. Finally the team have worked hard to engage commissioners and customers of models, as well as those building and assuring them. BEIS now have a Director as a modelling integrity champion: a non-specialist linking client needs with practitioners.

The programme of modelling integrity work has been monitored using the departmental QA score metric which is a corporate level performance indicator for our models. Roles and responsibilities are clearly communicated in BEIS's QA guidance and BEIS lead across Whitehall training Senior Responsible Officers in risk management in the modelling cycle. This training has become an established part of the Government's Major Projects Leadership Academy.

Alec Waterhouse, BEIS



MANAGING MODELLING: **TEAM**



TEAM: TRAINING

THE TEAM HAVE THE APPROPRIATE SKILLS AND EXPERIENCE.

The jury is out on what background makes the ideal financial modeller. Ultimately there is no right answer and this will come down to the individuals concerned.

However, in my experience engineers and accountants have both the numeracy and methodical mind-set to be particularly well suited to the role. (As an engineer and accountant by training I would say that.)

Having said that, I have come across excellent financial modellers from a wide range of backgrounds and there is definitely merit in bringing a degree of diversity to any team to keep things interesting and to bring a range of different perspectives to problem solving.

Ultimately it is the role of the financial modelling manager to ensure that their team has the complementary skills required to deliver the type of financial modelling required.

"In addition to the VBA experts (for the complex coding need that can arise) and accountants you may expect; we have employed mathematicians, engineers, decision analysts and economists to name but a few. We find that this range of backgrounds and specialisms can be invaluable to explore ideas and problems, promoting a healthy debate within the team to reach the best solution." **Stuart Smith, GRANT THORNTON**

"It is critical that we encourage diversity within financial modelling teams as this drives and creates innovation and ensures that we reflect the diversity of our clients and the locations and societies we operate in. This is particularly important for agile modelling teams such as ours which operate across borders, where our clients demand we can operate effectively in, and learn from, a large range of client environments and cultures.

We also strive for variety in our work, which is necessary to ensure that people are constantly challenged and driven to learn. PwC Australia's dedicated Deals Modelling team features very strong model build and model review experience, with team members involved in all aspects. This both provides people with exposure to a wide range of industries, as well as the opportunity to develop deep industry specialities." **Ian Bennett, PwC Australia**



TEAM: TRAINING

THERE IS A SYSTEMATIC TRAINING PROGRAMME IN PLACE COVERING MODEL BUILD STANDARDS AND PROCESSES.

Modellers need to be trained. It is incredible how many financial modellers have no formal modelling training.

This is clearly not the case in many other professions. One would never dream of going to a doctor who was self-taught, or an accountant or a lawyer. However, despite the huge risks involved, a perception persists that it is acceptable for financial modelling to be carried out by untrained people who have *'done a bit of Excel'*.

Modellers should be trained in the fundamentals of financial modelling and should also be trained specifically in the modelling standard selected by the organisation.

Combining training with the adoption of a standard is an extremely powerful combination which gives team members a common understanding and way of working, and will ensure that the adopted standard is embedded within the organisation.



TEAM: COLLABORATION

ROLES AND RESPONSIBILITIES WITHIN THE TEAM ARE CLEARLY DEFINED AND UNDERSTOOD.

It is the role of the financial modelling manager to be crystal clear about who does what within the team, the strengths and weaknesses of team members and where ownership and accountability for activities lies.

A key principle of effective modelling is the idea of a dual role structure. Separation of the roles of commercial structuring and modelling can significantly enhance the team's effectiveness, reduce errors and play to the strengths of individuals within the team.

This approach gives one person the high level overview of the model and the vision to ensure that the overall model makes sense, without being stuck in the weeds of the detailed calculation.

In addition, having at least 2 people familiar with the structure and workings of each model provides an ongoing sense-check and second opinion, as well as an extra level of robustness from a continuity perspective.

As a financial modelling manager, you will often be in the commercial structuring role. Managers of the financial modelling function far too often make the mistake of 'rolling up their sleeves' and getting stuck into the model. When a junior modeller gives them a model to review, if it is wrong, they fix it.

This works, in the heat of the moment, but pretty soon, the manager will be regularly receiving substandard models and staying in the office to the early hours fixing them.

This is not a good situation for anyone.

The junior modellers will not develop, the manager will be killing themselves working long hours and it is not good for the business. The manager will be spending so much time fixing modelling problems that they would not have the time or energy to sit back and see the commercial big picture.

Do not make this mistake.

"To avoid the "geek in the corner" problem, we split the task of modelling between two people: the model "specifier" and the spreadsheet "engineer". The specifier is the person who is in day-to-day contact with the client, understands the commercial position and provides the instructions of what needs to be done. This specification is then passed to the engineer who builds the model. What follows are two levels of review: coding is reviewed by an independent modeller and the specifier reviews the functioning of the model, ensuring it is doing what they wanted it to do. Working in this way means that there is a rigour to the review that is just not possible under the "geek in the corner" approach." Jerome Brice, Mazars



TEAM: RESOURCING

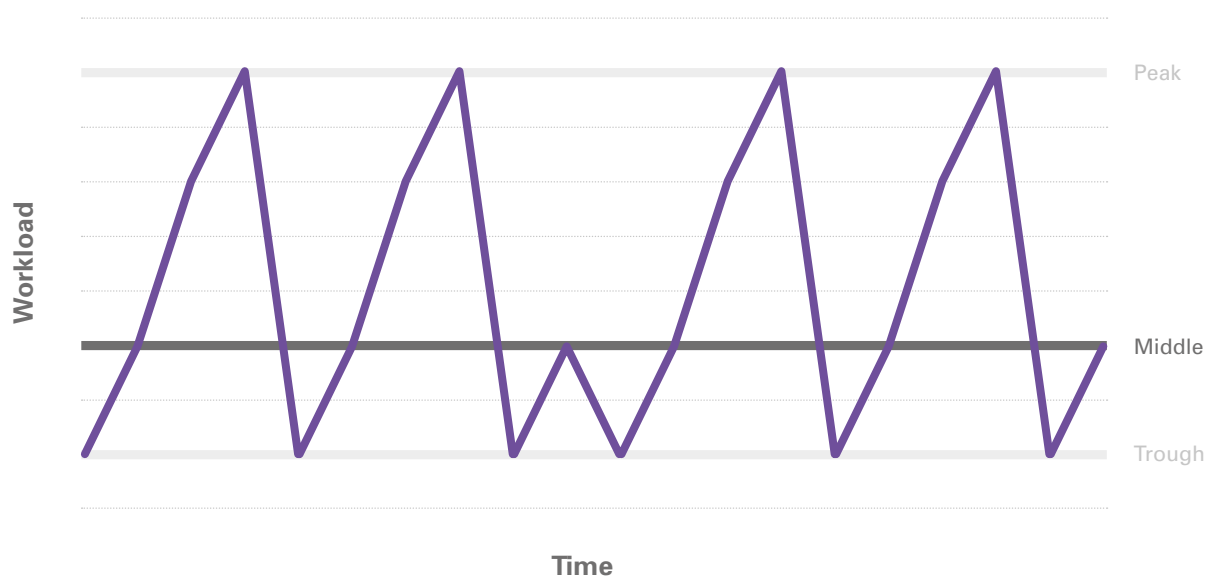
MODELLING TEAM IS APPROPRIATELY RESOURCED.

Resourcing of the financial modelling function within a transaction environment is extremely challenging due to the often 'lumpy' workload.

DEALING WITH A LUMPY WORKLOAD

The approach to dealing with a lumpy workload will vary depending on the extent of the lumpiness and the preferred approach of management.

There are a range of options available for dealing with this issue. The extremes are outlined below in order to illustrate the key issues.



RESOURCE TO THE PEAK

Where transactions are of an extremely high value and the cost of resource is immaterial, it may be financially viable to retain a high value modelling team and recognise that there will be some downtime.

In practice, this is pretty inefficient and rarely happens. One way of achieving this is where modellers can be kept busy on other value-added activity in the downtime.

POSITIVES

Capacity is always available
Sufficient capacity to ensure adequate quality assurance / checking

NEGATIVES

Inefficient and expensive
Periods of inactivity are bad for team morale

RESOURCE TO THE MIDDLE

This is probably the most common approach. The team is sized to ensure that it is busy most of the time, and at peak times it is stretched but does not quite break, hopefully...

POSITIVES

More cost effective than resourcing to peak

NEGATIVES

When the team is stretched errors are more likely to occur
Prolonged busy periods can be stressful and bad for team morale

RESOURCE TO THE TROUGH

Where project work is ad hoc and infrequent, it may not be viable to employ any full-time modellers at all. Project work is handled by finance staff who would usually be engaged in other activity such as management accounting.

POSITIVES

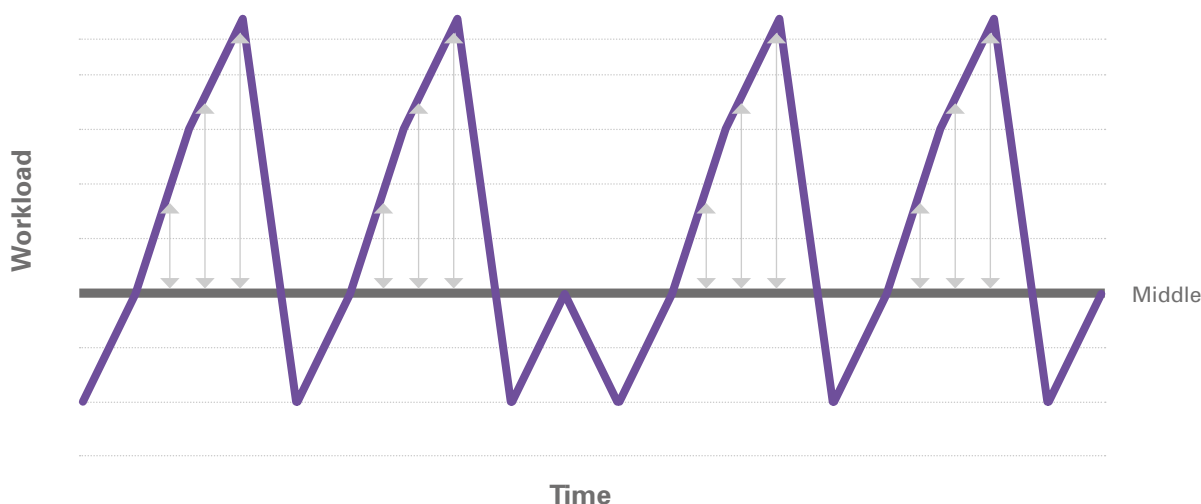
Cheaper than employing dedicated resource

NEGATIVES

Capacity may not be available when needed
Capability of non-specialist modellers may be lower than specialists
When the team is stretched errors are more likely to occur
Prolonged busy periods can be stressful and bad for team morale

EMPLOY FLEXIBLE RESOURCE

Employing flexible resource involves resourcing to the middle or the trough internally and then drawing upon external resource as required to manage periods of peak workload.



POSITIVES

Most closely matches resource to requirement

NEGATIVES

Flexible resource from advisors billing by the hour can be expensive
 It can be difficult to find flexible resource at short notice
 It can be difficult to agree common processes and ways of working with flexible staff brought on at short notice
 The quality of the flexible staff may be variable

This option is clearly the most effective in terms of matching resource to the work required, however in practice it can be difficult to achieve due to the practical implications of bringing in flexible staff at short notice.

To maximise the chances of making flexible resource work effectively, you should consider the following:

- Work with a single organisation with which you can build a long term relationship and understanding.
- Work with an organisation which employs the same modelling standard and methodology as you do.
- Work with an organisation which can demonstrate a depth of skilled modelling resource.



**COST EFFECTIVE ANALYST
SUPPORT AVAILABLE**
 WHENEVER YOU NEED IT



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