Gridlines

Financial Modelling
Innovation Report
2020

> **"I was taught that the way of progress was neither swift nor easy**

MARIE CURIE

Welcome

> ## There is a better way to do it — find it

THOMAS A. EDISON

I've been building models for 20 years. I've been teaching people to build models for more than 10 years.

Throughout a lot of this time I've found myself thinking *"there must be a better way to do this"*. For the last few years at Gridlines we have been building our own *"better way to do this"*.

And in this time we have learned that innovation is hard. Really hard. Creating something truly useful requires a supportive company culture, a deep understanding of the problem, domain knowledge, a viable business model, a profitable revenue model, product development expertise, endless motivation, creative thinking, resilience, and a systems approach to problem solving.

And in the end, most innovations don't work. Most startups fail. So there's that to look forward to at the end of it all. But, as Brene Brown said, *"There is no innovation and creativity without failure. Period."* I have had many failures in my career. But one thing I think I got consistently right has been my drive to make things better.

And so I have boundless admiration and respect for people who take on the pain and suffering that comes with making something new.

I created these awards to celebrate these individuals. All of the ideas contained in this ebook are the result of individuals thinking *"there must be a better way of doing this"* — and then doing the hard, hard work of finding it.

To me, these individuals are heroes, and artists. I celebrate each one of them.

I invite you to celebrate them too by sharing their work and buying their products.

Kenny Whitelaw-Jones
FOUNDER,
FINANCIAL MODELLING
INNOVATION AWARDS

Kenny is a partner at financial modelling boutique Gridlines where he is developing Openbox, a structured, modular financial modelling layer for excel. He is also founder of the Project Finance Institute, a new learning community for Project Finance and Infrastructure professionals.

Our Judges

Natalie Bayfield
SENIOR DEPARTMENTAL FELLOW, UNIVERSITY OF CAMBRIDGE

Inventor of 'Real Estate Financial Modelling' as a subject in its own right. Natalie has dedicated the last two decades to advancing the skill within the sector, via Bayfield Training and Cambridge University.

Ian Bennett
PARTNER, DEALS MODELLING, PWC AUSTRALIA

With over 18 years as a professional financial modeller, Ian leads PwC Australia's Deals Modelling team and is a globally recognised financial modelling expert. He has developed and reviewed the models that have supported major transactions around the world.

Danielle Stein Fairhurst
FINANCIAL MODELLER, AUTHOR, CORPORATE TRAINER

Danielle Stein Fairhurst is regularly engaged as a speaker, course facilitator, financial modelling consultant and analyst. She founded the Financial Modellers' Meetup groups which now have over 5,000 members in seven countries as well as a LinkedIn forum with more than 40,000 members.

Fiona Foster
INVESTMENT MANAGER, KIWI GROUP HOLDING

Fiona Foster has provided financial modelling consulting and corporate finance advisory to clients in New Zealand, the USA and the UK. She has developed and led financial modelling training with clients and internal teams and is a member of ModelOff's Diversity Council, aimed at improving diversity within the financial modeling industry.

Financial Modelling Innovation Report 2020

Iain Morrow
PARTNER & CTO, GRIDLINES

Iain started developing financial models in the mid-1990s. He has developed deep expertise in the energy sector and in economic regulation, in both private and public sectors. Iain has degrees in mathematics from Cambridge and the London School of Economics. He has published on machine learning, data analysis and modelling.

Lance Rubin
FOUNDER & CEO, MODEL CITIZN

Lance is a highly innovative, commercially savvy and lateral thinking financial modeller. His ability to distill complex financial problems into meaningful and visually appealing insights led him to founding Model Citizn. He is an ex-Investment Banker and KPMG modeller, was the CFO of fintech lender Banjo and Group CFO for Sequel CFO. Lance's passion is about merging Financial Modelling with Analytics and is currently a partner of theOutperformer and a director of BGC Consultants.

Award Categories

Collaboration, Communication, Presentation

Innovations in this category push the boundaries of what's possible in the communication and presentation of modelling insight. They open up financial modelling to non-specialists and bring more people into the modelling process for improved buy-in, risk management and insight.

Out of Excel

These are solutions that operate outside of excel for financial model build, collaboration, analysis and presentation. These innovations might operate as SaaS, in the cloud, on a phone, offline or all of the above.

Analysis Accelerators

These innovations level-up the power of excel, enhancing the richness of the cell, allowing more dynamic analytics like monte-carlo analysis and multi-dimensional problems. They might address some of the shortcomings of "out of the box" excel modelling. This could include mathematical innovations that level-up financial modelling beyond standard financial calculations and algorithms.

Model Builders

These tools aid the design and build of financial models for step-ups in productivity, taking a job of days to minutes.

Audit Extraordinaire

These innovations make the job of auditing financial models easier. They find errors, circularity and they distil models to their functional parts.

Education

These innovations push us to improve our financial modelling. They find new ways of helping us understand business context, they deliver novel routes to learning whilst improving competence, quality and efficiency.

" "

You can't be on the cusp of innovation and at the forefront of technology if you're wearing blinders.

GWYNNE SHOTWELL (COO OF SPACEX)

Financial Modelling
Innovation Awards
2020

This Year's Winners

> "Innovation distinguishes between a leader and a follower."

STEVE JOBS

This Year's Winners

2020 INNOVATION AWARD

ValQ for Modern Visual Planning

See Page 32 →
Visit on LinkedIn →

The judges saw the product as reaching a wide-ranging audience, and being an excellent use case for PowerBI without a need for complicated data expressions. Being focused on both analytics and financial modelling as an innovation, ValQ ticked many of their boxes in how it approaches, simplifies and communicates financial modelling, but from a PowerBI perspective.
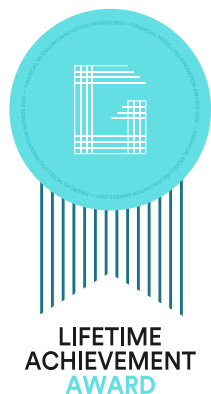
Being a PowerApp means it takes the best of PowerBI and allows users to neatly create financial models. It is going to really beef up the financial modelling capabilities of data models.

The judges loved the hybrid mind-map and formulaic relationship between branches of ValQ. The demonstration of calculation drivers appealed with an impressive combination of clear visual presentation and powerful analysis, a result of the significant development quality in the product which is apparent.

ValQ has identified a gap in the financial modelling industry where it's clear a large investment by those involved has resulted in a very professionally presented product which has great potential for the financial modelling industry.

valQ
MODERN VISUAL PLANNING

COLLABORATION,
COMMUNICATION,
PRESENTATION
WINNER

This Year's Winners

### Operis Analysis Kit

As we considered the concept of innovation in financial modelling, and the genuinely new ideas and cutting edge technologies which are appearing, it is hard to go far without comparing them to some of the established tools that have been constant companions for many years.

As the judges pondered the entrants individually and collectively, it seems comparisons to one tool in particular were inevitable; and although it wasn't eventually determined to have the sort of singular unique idea that warranted a category award; its breadth, its prowess, its constant evolution over many years and recent new functionality, and its very high build quality, have earned it an enormous fan base and global respect. It's at the same time both wonderful and horrifying to realise that I first came across David Colver and Simon Williams 17 years ago; a duration some of us in this profession would call a lifetime... and so it is with great honour we recognise them and their software OAK5 with this lifetime achievement award.

## LIFETIME ACHIEVEMENT AWARD
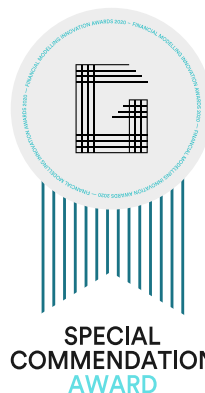
Newton's Approach

When one thinks about innovation its easy to look at the shiny new toys and technologies and get excited. But real innovation is not just about the technology but also approaching problems in a different way without the use of technology but rather innovative solutions and ideas. Newton's method was exactly that. Most modellers that must deal with circularity either with iterations or a copy paste macro. But Newton's method approach which was submitted allows you to solve circularity without using these two traditional methods. Truly worthy of a special mention.

Edward Bodmer

The judges recognise Edward Bodmer's outstanding contribution to the financial modelling industry with a special commendation award.

Through his website, Bodmer has provided free access to a wide range of modelling resources and tools, which have undoubtedly supported the further education of many financial modellers worldwide. In his website, Bodmer suggests simple solutions to specific problems that financial modellers face regularly, using videos and detailed explanations to teach and upskill.

SPECIAL COMMENDATION AWARD

This Year's Winners
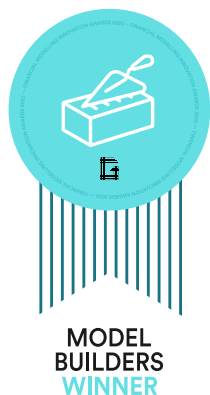
Dashflow for CRE

Innovations in financial modelling are about consistency in reporting, accuracy, simplicity, insight, speed and efficiency.

Speed and efficiency are the key attributes of the model building category and judges were looking for evidence of "a step-up in productivity, taking a job of days to minutes". DashFlow is Real Estate Financial Modelling software that ticked off this box and many others as well. The inspired automated stacking plan and touch controls break down the initial barriers of entry for new users in a very intuitive way. The visual approach to creating a Real Estate model's complex income characteristics makes model building less stressful, more interesting and consequently quicker to do. In addition, the built-in flexibility for amending inputs and clear reporting made this a clear winner for the judges. DashFlow is a well-rounded solution that stands on its own two feet but equally compliments Excel and other Real Estate Financial Modelling systems as well.

MODEL BUILDERS WINNER

keySkillset

A fresh, enjoyable and engaging approach to financial modelling training.

We liked the way it teaches real, useful, skills while at the same time being fun and different to the standard courses out there.

We all recognise the importance of training, and the judges really liked this entry. So much so that we decided to create a new category for education, since it didn't fit well into the other categories but was still clearly innovative.
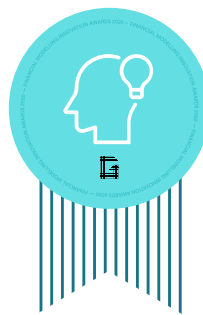
EDUCATION WINNER

This Year's Winners
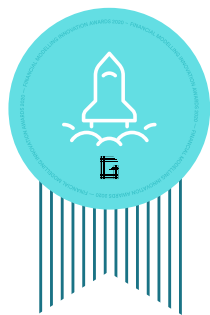
Visyond

When looking for innovation that sits outside of financial modelling's very comfy home of Excel, we're looking for ideas that genuinely expand the profession of financial modelling and have made the very best of not being restrained by Excel's many and lovingly endured limitations.

Showing just how financial modelling is evolving, there were a number of worthy entries to consider within this category, which included some great examples that are truly enhancing financial modelling like Whatifster, GRID, DashFlow, Tableur and ValQ.

The winner of this category has sought to move the spreadsheet experience to the cloud and make scenario modelling a genuinely collaborative experience;
and to my personal delight, seems to be the response to a gap in my professional life which I've been bemoaning the lack of in articles since 2016: the cloud-based single-source-of-the-truth model with the advanced functionality of Excel.
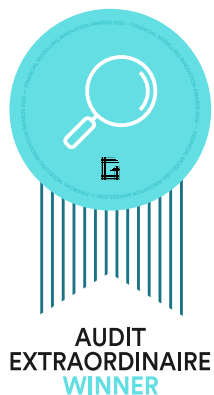
OUT OF EXCEL
WINNER

Dynamic Scenario Manager

Those of us who know and love Excel are well aware of its shortcomings and for the Analysis Accelerators category, we were looking for an innovation that would improve and enhance what we can do in financial models.

The winning entry, "Dynamic Scenario Manager powered by a Data Table" takes the popular and powerful Excel Data Table and removes the limitation of only having a maximum of two variables. The solution is easy to understand, and does not resort to add-ins, VBA or anything outside the normal functionality of Excel. It is evident that the solution was developed by a modeller with a genuine need to present scenarios with multiple dimensions, and the example provided to the judges demonstrated the solution in a simple and elegant way.

ANALYSIS ACCELERATOR
WINNER

This Year's Winners

PerfectXL Compare

The category primarily focused on innovation relating to auditing and reviewing models in ways that allow users to see the model's functional parts.

The 3 technologies all had great features and in some cases took collaboration, user interface and user experience to new levels which is exactly what you would like to see from innovation, particularly in model audit which can be a dry topic.

ExcelAnalyzer facilitated collaborative commenting between model builder and auditors that could be traced and tracked, OAK5 had a nifty side bar which enabled selection and deep analysis on formulas and format.

However, our category winner, PerfectXL, had 2 products which expanded the typical model audit user to a web based interface and a really nifty drag and drop function with clickable outputs that led it to being voted the winner given its approach.
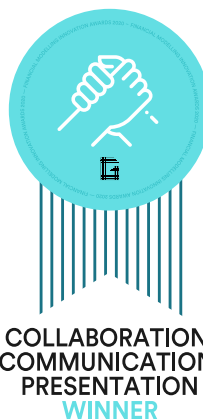
AUDIT EXTRAORDINAIRE WINNER

ValQ for Modern Visual Planning

ValQ offers a user-friendly experience to executive-level stakeholders and opens up financial modelling insights to an audience that mayn't have been reached in the past.

The judges rated this tool highly across all judging criteria, in particular the fact that it is a finished product, and that it can be used widely by the modelling community and beyond. It allows financial modellers to perform flexible, real-time what-if and sensitivity analysis within a familiar visualisation tool – innovative and well executed!

COLLABORATION, COMMUNICATION, PRESENTATION WINNER

"

Learning and innovation go hand in hand.
The arrogance of success is to think that what you did yesterday will be sufficient for tomorrow.

WILLIAM POLLARD

This Year's Innovations

> "If you want something new, you have to stop doing something old."
>
> PETER F. DRUCKER

Alt-Invest

ALT**INVEST** →

> We took the best from two worlds: open and flexible Excel models and stand-alone applications.

PROBLEM

90% of capital projects like a new product or plant are standard: investors expect to see sales, costs, capital expenditure, loans, and eventually financial reports. However, it is hard to use one simple template for all your projects, as the last 10% make all financial models different.

As a result, analysts spend hours and days building financial models from scratch. Those models contain errors, each analyst implements their own views on how a good model should be built, and any significant change in the project parameters can launch a full-fledged redevelopment of the model.

SOLUTION

We took the best from two worlds: open and flexible Excel models and stand-alone applications. Alt-Invest is an Excel model with built-in application that can customize the model to fit your project. All standard elements of a model for most types of capital investment projects are ready, checked and formatted, so the analyst can spend time on the content and leave all technical issues to Alt-Invest.
Alt-Invest provides all necessary reports, generates popular charts and diagrams, supports export of the model into your presentation or business plan.
At the same time, the model is still a regular Excel file, so you can add your sheets, tables and charts for unique or specific parts of the project.

DEVELOPED BY

**Dmitry Ryabykh
Alt-Invest**

LinkedIn →

Dmitry Ryabykh is the CEO and lead developer of Alt-Invest. He has worked for 25 years in the intersection of IT and finance: software development, internet projects, training, consulting. As a consultant he's participated in more than 300 capital investment projects from various industries. Dmitry has developed several software products for strategic financial modelling, and each next product used experience and feedback from previous developments in creating the best user interface, flexibility, and quality. Dmitry has a degree in engineering from Moscow Technical University, MBA from Oxford. In addition, he is a CFA charterholder and served as the president of CFA Association in Russia.

AWARD WINNER   AWARD NOMINEE

Dashflow for CRE

/~Dashflow

66 99

Dashflow is an artificial intelligence app that dramatically reduces the time to model or adjust a model from hours or days to minutes or seconds.

PROBLEM

Existing commercial real estate modelling software is complicated, slow, error-prone, and opaque. It demands much expertise, which means costly training and continuous practice. So modelling work is typically delegated to junior analysts whose standards vary. During the stresses of bidding in deals, Excel templates used to speed up modelling get butchered and the scope for errors increases as the deal evolves due to legacy baggage. Checking for errors is arduous and time-consuming. Existing modelling and black-box alternatives result in multiple analysts producing different results. Excel templates are not intrinsically collaborative and not designed for sharing or adapted to social media.

SOLUTION

Dashflow provides a consumer-style interface requiring no training because all calculating complexity is hidden. Manual drudgery and errors associated with copying, pasting, typing are eradicated. As a result, everyone in a transaction up to the CEO can become a "numbers person". Its simplicity ensures standardisation and consistency in output, and the speed allows for instant responsiveness reducing stress within the firm and enabling smoother interactions with outsiders. In addition, Dashflow is transparent and auditable because it exports an institutionally-standard tailor-made Excel DashModel with thousands of live formulae.

DEVELOPED BY
Michael Molloy
Dashflow for CRE
LinkedIn →

Michael Molloy graduated with honours from Land Economy at Cambridge University and moved to work within some the world's top firms in commercial real estate (CRE) including Cushman & Wakefield, Deutsche Bank, Equity International, Westbrook Partners and Rockspring. In his 15 years, he covered brokering, financing, marketing advising and investment including direct client work with Harvard Management, Australian Super, and NPS Korea. In regard to software, Michael is self-taught and has over 25 years of object-oriented programming experience. His embrace of the potentials of mobile technology led to innovative products including Dashflow and the DashModel which apply artificial intelligence techniques and exploit Apple's iOS software capabilities.

AWARD
WINNER

AWARD
NOMINEE

Dynamic Scenario Manager
powered by a Data Table

"

If the calculation methodology or a universal assumption changes, all outputs are recalculated live without the user needing to do anything.

PROBLEM

Financial modelling often requires the comparing of different options or sets of assumptions, otherwise known as scenario testing. Traditionally this analysis involves either saving multiple copies of the model with different assumptions entered into each or VBA coding to automatically change assumptions from a defined list. Neither of these solutions are particularly adaptable, either requiring changes to be made in multiple copies of a model or adjustments in the code to account for new variables or outputs. A better way is needed which gives confidence as to the integrity of the results and which can quickly produce results when a deadline is looming.

SOLUTION

Data tables have previously been identified as a solution for scenario testing, but only for 1 or 2 variables at a time. The Dynamic Scenario Manager however overcomes this limitation by allowing testing of a virtually unlimited number of variables. This is achieved by using each scenario's unique number as the key variable to be tested by the Data Table. By using LOOKUPs and SUMIFs to determine which value should be returned for each variable in a scenario, the Data Table can use a single set of calculations to produce outputs for dozens of scenarios dynamically. This means if the calculation methodology or a universal assumption changes, all outputs are recalculated live without the user needing to do anything.

DEVELOPED BY
Thomas Paul
Senior Manager, BDO
LinkedIn →

The Dynamic Scenario Manager was developed by Thomas Paul. Thomas has more than 12 years' experience in corporate finance, specialising in government projects, infrastructure, and resources. His work regularly requires the development of complex financial models to assess multiple project options and to sensitise the outputs. He developed the Dynamic Scenario Manager to allow for quick and adaptable scenario modelling when a project's assumptions are changing right up to the last minute. Thomas has a Masters degree in Applied Finance from Queensland University of Technology.

AWARD
NOMINEE

Excel iDashboards

Excel
iDashboards

Modelers can easily use data visualization to simplify complex data sets to provide users of the financial model with at a glance awareness.

PROBLEM

Financial models are part and parcel of every business. Often the strategic planning tool, many businesses use Financial Models frequently to analyze their performance.
Financial modelling is a highly skilled task mostly performed on MS Excel. The users of the financial model becomes overwhelmed by its complexity and often find it difficult to grasp the key decision-making points or takes a lot of time to arrive at the key decision-making areas. The need for a good UI and UX design has become crucial in any business decision making tool. There are many software available to develop dashboards, but not everyone is familiar with the usage or they don't want to invest in it.

SOLUTION

The solution makes it easy to develop customized interactive dashboards for financial models using excel ("Excel iDashboards"). It enables users of the financial model i.e. developers, clients and management to track KPIs, metrics, and other key data points relevant to a business. By using this technique, the modelers can easily use data visualization to simplify complex data sets to provide users of the financial model with at a glance awareness of current performance and future projections. Modelers will take less than few hours to design their dashboards and place their already developed content. With the use of single one line macro and the knowledge of charts and basic designing skills will enable the modelers to develop Excel iDashboards.

DEVELOPED BY

**Syed Aoun Muhammad
Senior Manager IQ
FINCON Pvt. Ltd**

LinkedIn →

Excel iDashboards was developed by Syed Aoun Muhammad. Aoun being the lead financial modeler at IQ Capital Plus developed this technique under the supervision of Partners. Since the beginning of the career Aoun was very much inclined towards User Experience (UX) and User Interface (UI) design. Having worked with many clients with varied educational backgrounds and skills on various transactions, Aound has been enabled to design the dashboard as per the client's requirements.
Aoun has done MSc Accounting & Finance with distinction in Investment Analysis from University of Northampton (UK). He has been associated with many institutes as a trainer on Excel Financial Modelling.

ExcelAnalyzer Add-in
Review Tool

Spreadsheetsoftware.com

" Gives the model builder the capability to know 100% for sure that his or her model is bullet proof.

PROBLEM

ExcelAnalyzer is an Excel review tool and is designed specifically for Excel users who build spreadsheets and want to be absolutely sure that their calculations come without errors.

ExcelAnalyzer helps Excel users to:
● Eliminate hours of laborious manual cell by cell checking saving Time & Money
● Review their spreadsheets in just seconds
● Build more efficient and higher quality spreadsheets
● Locate and visualize inconsistent formulas and errors
● Have confidence in their spreadsheets & be compliant
It helps the modelling profession build better, faster, error-free spreadsheets.

SOLUTION

ExcelAnalyzer comes as an Add-in and ads a new ribbon bar to Excel. Using state-of-the-art algorithms, ExcelAnalyzer offers users full comprehension of even the most complicated spreadsheet within seconds. Not only does it clearly identify and highlight potential errors and risks in the spreadsheet, it allows users to address these errors and then re-analyse the spreadsheet extremely quickly.
It scans spreadsheets for likely errors and displays them within the spreadsheet using an easy, straightforward interface. ExcelAnalyzer does far more than just checking formulas and checks the full DNA of the spreadsheet so the Model Builders are 100% sure that their models are Error-Free.

DEVELOPED BY
**Maarten Bessems
CEO of
Spreadsheetsoftware**
LinkedIn →

Maarten holds a MSc. degree of the Maastricht University in Mathematical Economics and is considered to be an expert in financial auditing. He has over ten years of experience as an economical analyst and quantitative consultant for both profit and non-profit organisations. Throughout his career, he built and audited hundreds of small and large Excel models for different purposes, which gave him detailed insight into the possibilities and drawbacks of using Excel. In 2011 he started Spreadsheetsoftware and with a lot of ideas, enthusiasm, and customer expertise, his team started programming ExcelAnalyzer. In his humble opinion, he believes that ExcelAnalyzer is a must have for every Model Builder who wants to build spreadsheets faster, without errors to enable better decision making.

Generic Macro Tool
for model building, re-format & re-structure

Finance Energy
Institute

,,

The tool considerably improves financial modellers' productivity and saves them time.

PROBLEM

A tool developed years ago to save time and make modelling more flexible, accurate and transparent. The tool is intended to prevent modelers wasting time and create more consistent formatting. It has been developed continuously over the years with feedback from top modellers around the world.

SOLUTION

The interpolate function allows curved inputs over time rather than step functions. It allows reviewers to format models accoring to function and makes the application of best practice straightforward. This tool can be used on any excel spreadsheet to do the format with a click, It can format; hard-coded inputs, title sections, flags, top rows in your worksheet, create a table of contents sheet with your logo and a disclaimer, show which data comes from other sheets, automatically generates the color codes based on the options you entered when running the generic macro in your sheets, identify the idle inputs, create groups with title columns, work through each sheet and make consistent format and size.

DEVELOPED BY
**Edward Bodmer
Consultant and
Workshop Leader**

LinkedIn →

Bodmer provides courses in Financial Modelling, Project Finance, Corporate Finance and Valuation, Mergers & Acquisitions, Renewable Energy, Independent Power and Electricity Pricing. He has been involved in formulating government policy related to electricity deregulation; he has prepared models and analyses for many clients around the world. Author of 'Corporate and Project Finance Modeling, Theory and Practice' (Wiley Finance).

GRID
—the new face of spreadsheets

AWARD
NOMINEE

GRID empowers spreadsheet users to easily create visual and interactive narratives on top of their existing spreadsheets.

PROBLEM

When pulling together data or building a model, spreadsheets are incredibly powerful and flexible tools on which the world of business literally runs. However, when it comes to communicating these data and models, the most common method by far is emailing Excel-files around, followed by copy-pasting static artefacts into presentations and PDFs or sharing them using cloud-based spreadsheet services. This is a constant trade-off between the level of narrative and guidance, losing control of the distribution, killing the interactivity of the model and retracting data so that it doesn't accidentally get into the wrong hands.

SOLUTION

GRID leverages existing spreadsheet skills, assets and workflows and turns spreadsheet models built in Excel or Google Sheets into interactive, web-based content to present and securely share with colleagues, customers or to be published to the entire world. GRID makes spreadsheet models come alive in a way that has until now only been possible with specialized web development, facilitating effective storytelling, decision making and communication.

DEVELOPED BY

**Hjalmar Gislason
Founder & CEO, GRID**

LinkedIn →

Hjalmar Gislason is the founder and CEO of GRID. Hjalmar previously served as VP of Product Management at Qlik in Boston. He was the founder and CEO of DataMarket, founded in 2008 and sold to Qlik in 2014. A career data nerd and entrepreneur, GRID is Hjalmar's fifth software startup as a founder.

Interactive Probability-Weighted
EBITDA Bridge and ROIC Decomposition

" **Enables on-the-fly simulation with senior management and the CFO team in the same room, with interactive functionality for key input variables.**
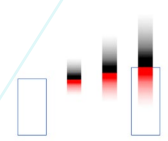
PROBLEM

Financial scenario planning and sensitivity tools come in two flavors: those that require a PhD to operate, and the error-prone, over-engineered spreadsheets solutions that senior management won't touch. None of these are the centerpiece of management discussions, and shareholder value creation uncertainty remains unquantified even after the most fruitful debate and actions agreed. "I'll have my team run a few scenarios and get back to you," the CFO says and leaves the room with another high-priority task on her list. She asks herself, "How certain are we?" She takes and manages risk on behalf of the shareholders, so she should know. But she doesn't.

SOLUTION

It enables on-the-fly simulation with senior management and the CFO team in the same room, with interactive functionality for key input variables, instantly yielding and visualizing expected value and confidence intervals for EBITDA and variable bridge components, as well as a full ROIC decomposition with intermediate values such as Net Operating Profit Margin. The model leverages a simple yet powerful mathematical concept called "fuzzy numbers", notably used in AI. It differs from dollar-based sensitivities and discrete three-point estimates by considering the three-point estimates triangular probability distributions and calculating combined distributions for multiple variables such as low/base/high sales and low/base/high margin per unit.

DEVELOPED BY

**Christian Rakvaag
Performance
Information, Yara Intnl.**

LinkedIn →

The Interactive Probability-Weighted EBITDA Bridge and ROIC Decomposition was developed by Christian Rakvaag. Inspired by project estimation techniques and real options analysis, it is a working startup kit to be adapted to industry and company specifics. Having spent 20+ years in various business intelligence, project management and IT management positions, Christian is passionate about decision science and believes it's essential to conceal – but never remove – the "science" to ensure management adoption. Christian has business degrees from the University of Michigan and EM Lyon Business School. He has been invited as expert speaker to SAP Business Intelligence user conferences in the Nordics, showcasing integrated, user-friendly Excel reporting.

keySkillset

> keySkillset is a muscle-memory building educational platform to master MS Excel and Financial Modeling skills.

PROBLEM

Efficiency and precision is key when building a model. For that, you need to know by heart the best approach to take with Excel shortcuts and functions, so you can focus on the content itself.
Businesses lose billions of dollars around the world due to inefficiency of employees in Excel and modeling. Companies hire live trainers to teach the right approach, but it is expensive and limited to the number of participants that one trainer can manage. Videos can give you knowledge, but they don't build skills. keySkillset is the time and money saving solution that has it all.

SOLUTION

We use a unique mouse-free approach to dramatically increase efficiency. Advantages of the keySkillset solution are:
● easy scalability to an unlimited number of users
● self-paced
● easy tracking of participants' progress
● cost-effective
● "learn and do" approach
● friendly competition

DEVELOPED BY
keySkillset
LinkedIn →

Tatiana has been involved in financial training for over 10 years, for large international companies, such as Goldman Sachs, JP Morgan, Credit Suisse, Wells Fargo, Deloitte, BCG, McKinsey & Company and more. Training participants were looking for a tool where they can build their muscle memory in Excel and financial modeling after the training. So, Tatiana decided to build that tool to help her students take their skills to the next level. In 2018 Tatiana created an interactive course in a gamified format to master MS Excel skills. After it was successfully launched at TD Bank New York and Toronto, Tulane University, JP Morgan Chase New York and HSBC London, keySkillset added a financial modeling game to the product line.

Newton's Approach
for Financial Modelling

modelmap

❝❞

We do not need to worry about running a macro every time you change your model assumption.

PROBLEM

We financial modellers know that we have a great excel function called "Goal Seek". It is very powerful, particularly when you want to conduct optimisation analysis. However, there is a disadvantage of using it - the loss of model flexibility and "liveness", the ability for an input to be changed and the model to update automatically. These are two of the most important principles in industry standards.
We have the same problem with the use of a copy & paste macro to break model circularity. You look smart when having a perfect command of VBA, but again, the macro inhibits flexibility and liveness.

SOLUTION

Newton's approach is a mathematical method for approximation and can solve these issues. For example, we calculate an IRR output based on on an initial price assumption (i.e. model input) but also want to see what price delivers a specific IRR. The problem requires duplication of calculation blocks or amending cell links every time we switch the calculation approach.
With Newton's approach, we have them both in one place. We can see a calculated IRR with a model input of price assumption and, at the same time, see the optimised price to achieve a target IRR.
The same approach can be applied to break a circularity without macro. We do not need to worry about running a macro every time you change your model assumption.

DEVELOPED BY
Sho Yoshimura
COO at modelmap
LinkedIn →

Sho Yoshimura is the COO of Modelmap. Modelmap is developing an integrated data platform to maximise the value of corporate data held in CRM / MA systems. Sho is also a managing director of Tokyo Modelling Associates (a financial modelling boutique based in Tokyo).

Operis Analysis Kit

We do not need to worry about running a macro every time you change your model assumption.

PROBLEM

The financial modelling industry relies heavily on the use of Excel spreadsheets. Numerous studies have proven that spreadsheets are prone to errors due to the lack of a systematic methodology to identify those same errors.

Cell by cell inspections are cost ineffective, unreliable, and very often not only they don't mitigate the model's formula risk but actually increase it by adding another human prone-to-error layer to the auditing process.

SOLUTION

The Operis Analysis Kit (OAK) offers a wide range of tools that are specifically designed to:
● identify potential formula risk by generating a wide range of reports which measures the formula risk and complexity
● offer the capacity to analyse how industry standard modelling best practices are applied or not to the model and propose alternatives
● increase the overall model quality by identifying genuine differences throughout the different versions of a model tracking the quality of those same changes.
The capacity to integrate and automate the use of all OAK tools within model audit and building processes through our unique API makes OAK a distinguished and reliable aid to any financial modelling related activity.

**DEVELOPED BY
Operis**
LinkedIn →

Since the firm's inception in 1990, Operis have developed an envied portfolio of services specifically focused on project finance. The firm has its origins as a specialist in the financial modelling of project finance transactions but over time, activities have widened to cover a full portfolio of project finance related services including financial advice, model audit, financial modelling training and financial modelling software. As a company we believe it is crucial to support spreadsheet builders, reviewers and users and so we shared our in-house application with our clients. 17 years ago we transformed our in-house OAK Excel Add-in into an application that it is now recognised as the industry standard in Excel modelling and auditing apps.

PerfectXL Add-in

The PerfectXL Add-in reduces risks, improves clarity, and helps users create reliable spreadsheets.

PERFECTXL

PROBLEM

The world is full of Excel users. Our research shows that 90% of corporate analysis is based in some way on spreadsheets, and 88% of these spreadsheets contain some sort of risk. In a world where Excel models are relied on for calculating, storing, dispersing, and collecting crucial information, there are simply not enough checks and balances to ensure good modelling practice. We see this time and time again in companies especially with old spreadsheets and documents that are no longer in the hands of the original author of the spreadsheet. Lack of clarity, poor transferability, and high risk numbers make Excel tough to manage in the corporate world.

SOLUTION

We at PerfectXL aim to provide users with the tools to reduce risks in their Excel files. To improve clarity, to help users improve their spreadsheets on the basis of modelling best-practice, and to return a sense of confidence in the quality of Excel models. Our add-in has several different features that aim to equip modelers with the information and tools required to successfully improve their models. In a company environment this product also serves as a benchmark with which to analyze the quality of spreadsheets delivered by clients and colleagues. The PerfectXL Add-in reduces risks, improves clarity, and helps users create reliable spreadsheets.

XL

DEVELOPED BY
PerfectXL
LinkedIn →

PerfectXL was started because of a project at the Delft University of Technology in which the original founder carried out research into spreadsheet risk. Since then this little Amsterdam based company has always stayed close to its academic roots, everything we make is based on thorough academic research. Our belief is that Excel is amazing, it just needs to be used responsibly, and very few people get the training required to truly master this vast program. Our goal is to provide users with software solutions which will start to make Excel more manageable, especially in the corporate world.

AWARD
WINNER

AWARD
NOMINEE

PerfectXL Compare

PERFECT**XL**

An incredibly fast standalone comparison tool that generates clear, correct, complete comparison results between two different versions of a spreadsheet.

PROBLEM

Excel doesn't provide a way to generate good, usable, fast, clear comparisons between 2 Excel files. Especially in cases where there have been structural changes (rows, columns, and sheets added or deleted). Comparing spreadsheets has a wealth of applications, bug fixing, collaboration, version tracking & management, good documentation in the form of logs, ensuring templates haven't been tampered with, and many more! The current solutions available are, slow, incomplete, hard to understand/use, and the results are often incorrect, or at least do not yield the actual information you are looking for. Spreadsheet comparison solutions and tools are outdated and generally unusable.

SOLUTION

We launched PerfectXL Compare at the end of last year. It is an incredibly fast standalone comparison tool that generates clear, correct, complete comparison results between two different versions of a spreadsheet. Our solution goes a step further though with a real focus on usability. The interface is clear and simple, easy to work with, but the real trick is the smart grouping algorithm and the tracking of cells even after shifts due to structural changes in a model. PerfectXL Compare tracks changes back to actual user actions and groups these to give users an overview of what has actually changed in their models.

XL

DEVELOPED BY
PerfectXL
LinkedIn →

PerfectXL was started because of a project at the Delft University of Technology in which the original founder carried out research into spreadsheet risk. Since then this little Amsterdam based company has always stayed close to its academic roots, everything we make is based on thorough academic research. Our belief is that Excel is amazing, it just needs to be used responsibly, and very few people get the training required to truly master this vast program. Our goal is to provide users with software solutions which will start to make Excel more manageable, especially in the corporate world.

Quarantine of the Inputs

Easy to make summary/overview reports containing all projects and end up with great data that can serve as an input for Power Pivot/BI.

PROBLEM
I was faced with a question to develop a reporting file to track the status of a pipeline of different wind farms in development. One could make a different excel file for each wind farm. By this, you could end up with 26 (or more) different excel files. You could also choose to work with one file that captures all the different projects.

This could give problems when two or more colleagues want to update the project status at the same time.

SOLUTION
Best practice in financial modelling is splitting the inputs from the calculations and output. All the inputs are set together in one (or a few) worksheets. 'Quarantine of the Inputs' takes this to the next level by putting all the inputs in a separate excel file. Importing and exporting of inputs is done through a push on the button (using a macro). Using this methodology I need to maintain only one excel file. It is fairly easy to make summary/overview reports containing all projects. You end up with great data that can serve as an input for Power Pivot/BI.

DEVELOPED BY
Bert Verstraete
Senior Financial Analyst
Storm Management NV
LinkedIn →

'Quarantine of the Inputs' was developed by Bert while working at Storm (a Belgian wind farm developer) as a senior financial analyst/modeller. He has over 12 years of experience in project finance, infrastructure and renewables. Bert has degrees in Applied Economics from the University of Antwerp, and a Master in Banking and Finance from Ghent University.

syFMF — syconomic
Financial Modeling Framework

" Concentrate on modeling the business logic, using visual model building with multidimensional data and powerful risk and scenario analyses. **"**

syFMF

PROBLEM

Financial modeling is typically too much of Excel engineering and "getting the financials right" and too little of understanding and modeling the business logic and the risks and uncertainties that influence "the numbers." The common approach of modeling each line item separately and then "balance the balance" by reconciling P&L, balance sheet, and cash flow as an afterthought is complicated, error-prone, and time-consuming. Plus, Excel provides only little support for conceptional modeling, working with multidimensional data, or gaining insights via sensitivity and risk analysis.

SOLUTION

The idea behind syFMF, based on the powerful Analytica modeling platform, is to separate the "financial model" from the "business model" and link the two via a standardized connector. Instead of worrying about "balancing the balance," modelers can concentrate on modeling the business logic, using visual model building with multidimensional data and powerful risk and scenario analyses. Modeling the business logic, modelers only need to "produce" the direct effects on P&L, balance, and cash flow, and let syFMF take care of the rest. They can simply break down every problem into components they understand well. By simply adding up these components, literally, you can build models of any complexity—faster, with fewer errors, and greater insights.

DEVELOPED BY

Torsten Röhner
Founder, sysconomic

LinkedIn →

syFMF, the syconomic Financial Modeling Framework, was developed by Torsten Röhner, founder and CEO of syconomic. Torsten has almost 20 years of experience in financial modeling, risk analysis, and corporate treasury. He was a passionate Excel modeler, but when he discovered Analytica he got hooked—and never looked back. Since then, his mission is to spread the gospel of Analytica to the financial modeling community. Building Analytica models from scratch and wrestling with unbalanced balances, he thought there must be a better way. Hence, he developed syFMF, the most generic approach to producing integrated 3-way statements he could come up with.

AWARD
NOMINEE

tableur.com

| tableur |

❝❞

Tableur is the most flexible and robust technology to model sophisticated businesses or projects—without coding.

PROBLEM

Traditional spreadsheets are excellent for general modeling without too much complexity, but when it comes to modeling sophisticated projects with numerous dimensions, stakeholders, or variations, they are not a good option for at least three reasons. First, spreadsheets are unappealing for decision-makers (unless they are modelers themselves). Second, modeling errors increase significantly with complexity and can severely impact the business. Third, it is almost impossible to maintain, update, and scale sophisticated models over time. Although Excel is here to stay, its lack of structure is a significant limitation to model complexity. Up to now, there was no other lightweight alternative to address this limitation.

SOLUTION

Tableur is the most flexible and robust technology to model sophisticated businesses or projects—without coding. At first sight, it looks like a spreadsheet with a familiar grid interface. Unlike spreadsheets, it enables modelers to build highly granular models, scale them with confidence, and transform them into analytical apps (using BI tools). Most importantly, we see Tableur as a way for modelers to access the multidimensional modeling market still reserved for the big players, i.e., big consulting firms and corporations. Professional modelers can now use Tableur to promote their brand (white-labeling), differentiate from competition that uses Excel exclusively, and generate new recurring revenues.

DEVELOPED BY

Pat Ben
Partner, Tableur
LinkedIn →

Pat is a serial entrepreneur with a strong focus on financial modeling, data analytics, and innovation. He has worked for a decade in private equity in Paris and Geneva and another decade in the Swiss innovation ecosystem advising successful high-growth companies. He regularly collaborates with the State of Geneva (Energy Office) to optimize financial modeling, reporting, and governance for multimillion-dollar projects in the field of sustainable infrastructure. Pat has master's degrees in economics from Sorbonne University and in finance from the Paris-HEC School of Management.

User Defined Function
& Circularity

"

User-defined functions to solve any circular reference problem in Excel without using either a copy and paste macro or the iteration button.

PROBLEM

The UDF helps to solve for circularity and therefore increase spreadsheet speed and enables the user to use the built-in Excel functions like Data Table. These functions are not accessible in a spreadsheet with circular reference or copy and paste code. The method also allows you to solve problems like debt sizing with P50/P90/Debt to Capital; sculpting of multiple debt issues with income taxes; easily incorporating refinancing into models; computing curved DSCR's to meet debt life constraints; and evaluating alternative DSCR and project cost definitions.

SOLUTION

The technique applies user-defined functions to solve any circular reference problem in Excel without using either a copy and paste macro or the iteration button. In this method you need to reprogram in VBA the equations causing circularity in the financial model, and then use this function in the Excel model. This method not only makes your model more flexible and faster; it also helps you to debug your models. This is because you are basically programming the same calculations twice: once in Excel and once in VBA. Most times the mistakes are in your Excel formulae rather than in the VBA code. Mr. Bodmer and Ms. Kianyfard have created a Flexible, Accurate, Transparent and Structured method to make it relatively easy to add the method to your models.

DEVELOPED BY

**Edward Bodmer
Consultant and
Workshop Leader**

LinkedIn →

Bodmer provides courses in Financial Modelling, Project Finance, Corporate Finance and Valuation, Mergers & Acquisitions, Renewable Energy, Independent Power and Electricity Pricing. He has been involved in formulating government policy related to electricity deregulation; he has prepared models and analyses for many clients around the world. Author of 'Corporate and Project Finance Modeling, Theory and Practice' (Wiley Finance).

AWARD
NOMINEE

ValQ for Modern Visual Planning

❝❞

ValQ for Modern Visual Planning solves financial modelling challenges through a user-centric approach

PROBLEM

Ease of Use: Mobile phones, data visualization software, web applications – all have witnessed a significant leap in user experience & visualization. But Financial Modeling, Planning & Forecasting have stayed behind in the (tabular) past. The models are neither visual nor intuitive. Complexity: Capabilities such as scenario creation & comparison, impact/attribution analysis, sensitivity analysis, variance analysis, etc. are time-consuming. Collaboration: Communication, collaboration & interpretation (by others) is a challenge. Productivity & Speed: Executives just can't use models built by others to run simulations & evaluate scenarios on their own; As a result, decision-making requires time & several iterations

SOLUTION

Visual & Intuitive: ValQ brings your models to life through a visual & highly interactive, standardized interface. Build models intuitively without writing any code; Explore, navigate & simulate models through click-and-expand, pinch-and-zoom, and click-and-drag gestures. Instant & Agile: Simulate changes & visualize the impact instantly; Create and compare multiple scenarios in seconds; Leverage out-of-the-box capabilities for variance analysis, sensitivity analysis, and attribution analysis. ValQ simultaneously supports bottom-up forecasting & top-down allocations (through an intelligent planning grid). Collaboration: Utilize commenting, collaboration and audit features; Speed of Decision-Making: Executives can finally consume models built by others with minimal assistance.

DEVELOPED BY

Gopal Krishnamurthy
Founder, Visual BI

LinkedIn →

Visual BI, headquartered in Plano, TX, specializes in Business Intelligence & Analytics products & services. To promote agility in evaluation & adoption, we are releasing ValQ as an independent, serverless add-on for Microsoft Power BI. The software can run without any infrastructure – such as a database, server or IT support. ValQ leverages Power BI's framework for connectivity to source data – including on-premise databases, cloud platforms, web data sources, and spreadsheets. The financial models can be published to Office365. ValQ also leverages Office365 authentication to enable features such as commenting & collaboration, audit trail and Microsoft Azure integration.

Visyond
Better analysis and decisions, faster

AWARD WINNER **AWARD NOMINEE**

VISYOND

""

Anyone can carry out, in minutes, what takes experts hours or days to do.

PROBLEM

Decision making requires modelling, scenario planning, forecasting, analytics, knowledge management, data visualization and reporting tools. Analysts, experts, clients, CxOs must collaborate with strict requirements on data security and governance. Without Visyond, the process requires multiple platforms and causes the following problems:

● Data Leaks & Security Threats
● Version Chaos and lack of a single source of truth
● Difficulty to track changes and compare scenarios
● Time- consuming and error-prone manual setups, with high probability of accidental errors
● Lack of interactivity and self-service options for what-if analysis/stress testing

SOLUTION

Visyond runs in the browser, it's a single source of truth, and its cells allow for multiple assumptions to be combined into scenarios in real time. They can contain attachments and conversations to improve the quality of the data and the communication process.
Comparing scenarios, running monte carlo simulations or knowing what are the most impactful cells on a certain formula cell, becomes fast and automated.
Anyone can carry out, in minutes, what takes experts hours or days to do. Stakeholders can self-serve through interactive online slides, and run their what-ifs from the cells that the project owner decides to expose on these dashboards. Finally, Visyond uses human-readable names and detects the root cause of errors.

DEVELOPED BY

Gianluca Bisceglie
Founder & CEO, Visyond
LinkedIn →

With Visyond, I wanted to solve the "spreadsheet hell" problem I experienced throughout my career. Prior to founding Visyond, I worked in Private Equity, responsible for the identification, screening, due diligence and execution of investment opportunities in various industries.
I began my career at Vodafone, where I held various roles (based in Italy, Germany and the UK) in engineering and technology strategy.
I love mentoring and coaching, I have been a regular Guest Speaker for the Advanced Corporate Finance program at London Business School and a Mentor at the Startup Leadership Program. I hold an MEng in Electronics Engineering from the Polytechnic of Turin (Italy) and an MBA with Distinction from London Business School.

Whatifster

> **Whatifster addresses the problem of asymmetric information available to different sides of the decision-making process.**

PROBLEM

Cumbersome financial models in Excel… static slides in PowerPoint… frustrated analysts… confused decisions makers… clients that can't follow their advisors… Almost all companies, large and small, when looking at new projects and planning their business, first build financial models in Excel and then reflect results on PowerPoint slides. However, it remains impossible to quickly test the assumptions and to clearly see how changing them might affect the outcome. Sensitivity tools built into Excel have limited functionality. PowerPoint charts are rigid. Every "what-if" question requires a long recalculation and redrawing. And there may be dozens of these questions! The unwanted result is lost time and unnecessary costs.

SOLUTION

Whatifster addresses the problem of asymmetric information available to different sides of the decision-making process – analysts and decision-makers - and empowers executives to run an interactive what-if analysis directly from inside a PowerPoint presentation right in a Board room. It revamps the traditional lengthy way of preparing and making investment decisions and breaks the vicious circle of Excel-PowerPoint-Excel-PowerPoint.…

DEVELOPED BY

**Alexander Kurtynin
CEO, Breeze Traffic**

LinkedIn →

The concept of Whatifster was triggered by the founders' frustration with decision making at numerous Board meetings. They experienced it from both the Project Office perspective (building new models and submitting them for discussion), and from the Executive Team position (reviewing projects and trying to make informed decisions). The time and effort consumed by this process was painful. Founders realized that the problem is larger than their company and that an innovative solution is needed for most businesses in various industries.

> ## "
> **What is now proved was once only imagined.**
>
> WILLIAM BLAKE

Gridlines
Infrastructure Analytics

We are dedicated financial modelling and analytics consultancy focused on the Infrastructure and Power sectors.

We are building Openbox, a structured modelling layer for Infrastructure modelling.

Follow the story at gridlines.com/blog