Institute and Faculty of Actuaries

Actuarial Modernisation – it's time to accelerate!

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#GiroConf22

Agenda

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The case for Actuarial Modernisation is strong

Internal

- Actionable insights
- More efficient processes
- Enhanced controls

External

- Alternative data
- Data science
- Cloud computing

Industry

- Accounting – IFRS17
- Regulation - SII
- Actuarial exam changes

The role of the actuarial function is changing in response to these challenges - the actuarial function of the future will need to adapt to become a technology-enabled, forward-looking, advanced analytical team, able to harness the value in ever-increasing amounts of data in a more efficient manner.

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There are challenges to change…

Resources: people and knowledge…

Costs: competing priorities…

Buy-in: achieving it at all levels…

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There is a wide range of ambition in the market

Regardless of the level of ambition, there are some key steps to take:

1. Set a vision
2. Create your desired end-to-end process design
3. Decide on the right infrastructure and applications to invest in
4. Build the right skills in you team and focus on buy-in from all levels
5. Be realistic!

Streamlining existing processes without new tools / technologies	Trialling new technologies on specific processes e.g. starting to use BI tools to replace Excel spreadsheets in some areas, but no major change to infrastructure	Exploring the use of tools to create an alternative and more automatable process that still provides as much transparency as Excel	Moving key business processes from Excel into R / Python. For example, capital modelling	Enhanced data capability to allow rapid analysis of modelling runs, providing standardisation across teams	Developing data capability that will be used to join up business processes using a form of service architecture	Replatforming Excel and code platforms on to one solution, underpinned by an MI suite and data capability to allow teams to focus on insight and not number production

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There are a wealth of technologies to enable change

Cloud solutions

Google Cloud

Azure

aws

Coding solutions

sas

RPC

python

R

alteryx

Visualisation solutions

tableau

Qlik

Robotic Process Automation

blueprism

UiPath

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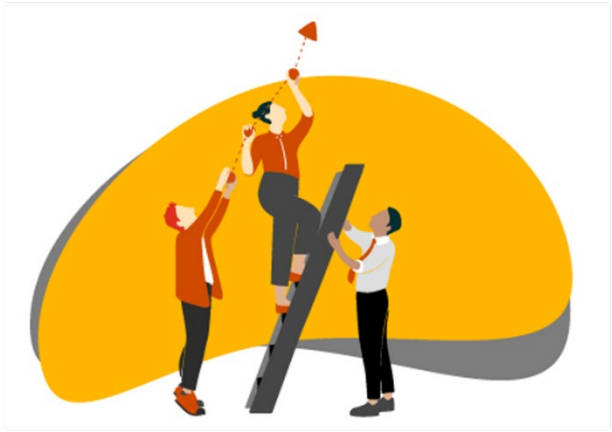
Actuaries of the future need to work with other business functions to drive change

Actuaries drive change, look for strategic advantage and innovate to enhance the broader business.

Data scientists use large data sets and advanced techniques to solve key business problems.



IT professionals use a range of different coding languages to build efficient and well controlled solutions that can be run by different teams across a business.

Broader reporting teams use internal and external data sets to support the decision making process across senior leaders.

- The role of an Actuary overlaps with other key business functions more now than ever. Is this a bad thing?
- In our experience, working together helps to diversify and broaden out the “art of the possible” and gives actuaries a whole new toolkit to both explore and leverage.

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Key lessons learned from market experience

Transformation needs complete buy in from IT teams

Actuaries are often not great visionaries in isolation when it comes to tech. The more effective development programmes often have a range of diverse skills that include BAU expertise, actuarial tech and IT skills.

Agile development works well if people understand what this means

Regular “sprints” of work, retrospective lessons learnt, daily scrums and frequent show and tells are some of the key benefits of moving to an agile mindset.

Code repositories provide a new level of control that doesn’t exist in Excel

Code repositories, such as Azure DevOps, are great tools when it comes to code development. They are far better than any development structure built around Excel.

Rapid PoC’s tend to work well initially, adding value within a month

Programmes work better when they are structured with some early prototype releases, that can be used by the business and provide some form of insight, efficiency or control benefit

Architecture needs to be fully understood and well explained

Solution design needs to be explained in clear English to non technical audiences (communication is key). A large number of projects have to change direction mid way through due to lack of clarity in requirements.

It is important to understand that it won’t be right first time around

To fully embed a new, better controlled process it will require data, systems, calculation, testing, plus a number of iterations and dry runs. Just developing a new spreadsheet / code is only one small part .

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Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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Thank you

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