

## 4 Steps to Data-Driven Reinsurance

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1.

Is data readily available to those who can use it  
and are they using it?



A reinsurance company outcompetes its rivals by being better at interpreting and reacting to data. The principle of data democracy is to provide the means of analysing data to people across the organisation. At a truly data-led reinsurance company, the relevant data is always in the hands of the people who can make use of it. Too often, reinsurance companies spend substantial amounts of time warehousing and cleansing data that is not then used below the level of the board room. Some data does flow further down the chain to individual underwriters, but it is rarely enriched with data from complementary sources. For example, if you give an underwriter data they already know, their natural response is: “So what?”. By contrast, if you give an underwriter the same data enriched with external market data feeds, reserving inputs and claims developments, they can start to use it to price business and make connections between their own work and that of their colleagues.

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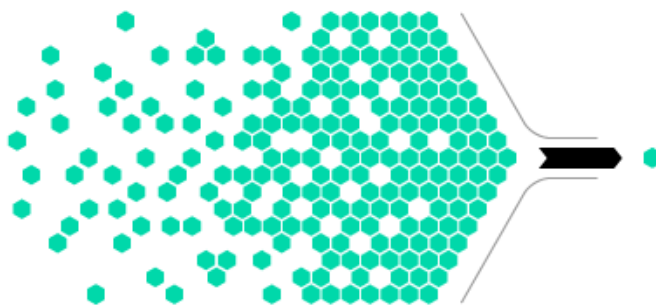
‘Performance obsession should pervade the whole  
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As Pat Saporito argues in *Applied Insurance Analytics*<sup>1</sup>: ‘Analytics improve business processes, decision making and overall business performance and profitability through insights gleaned and actions taken based on these insights’. Performance obsession should pervade the whole organisation. For this to happen a clear rationale and buy-in are needed. As far as data democracy is concerned, there needs to be full commitment at management level, with clear roles and responsibilities defined for driving good data practice. However, senior members of an organisation need to be careful not to push the data agenda simply by making more data requests. That is not data democratisation. It is merely giving more work to the already overloaded underwriters, actuaries and reporting teams. Often data is held by finance, IT or a business analytics team. It is important to ensure that there is a mechanism for other functions of the organisation to query and analyse the data too. Individuals will only be willing to add and interact with data if they see how it benefits them. Data should empower each employee to fulfil their function more effectively. Data democracy gives more employees the ability to make data-driven decisions.

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## 2. Is data-crunching creating a bottleneck?



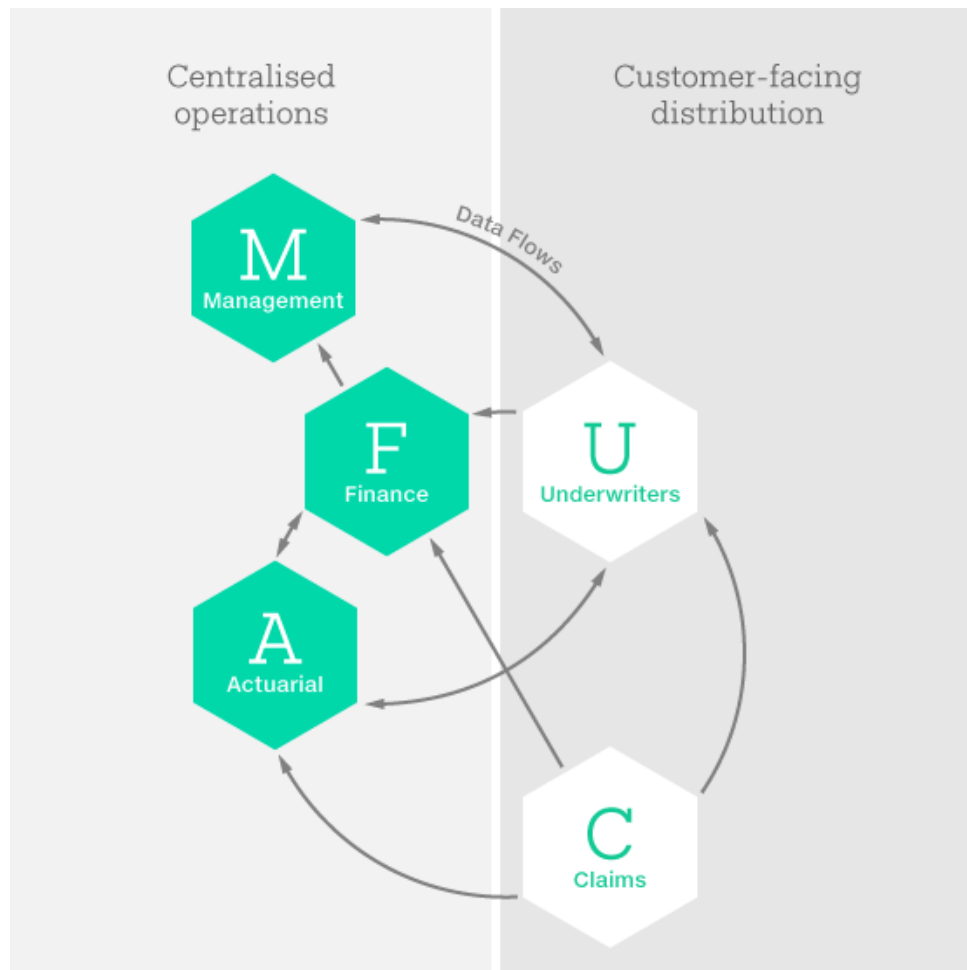
When modelling or reporting on risk, actuaries and underwriters spend a significant portion of their time sourcing, structuring and cleansing data rather than conducting analytics and reviewing results. While it is essential for them to be familiar with the data and to check overall accuracy of the numbers, software should be doing the heavy lifting. Actuaries and business analysts should be using their expertise to drive the business rather than perform repetitive tasks.

The issue becomes magnified when the sourcing, structuring and cleansing of data is performed separately by different teams within the organisation. Often, business analysts will discover that they have duplicated the work of other teams – both in manually cleansing data and in creating similar charts and graphs. A lot of unnecessary time and frustration is wasted in the inevitable reconciliation – one of the most expensive words in insurance.

Centrally managed and automated cleansing dramatically reduces this overhead cost. More importantly reliable and accepted data gives users confidence that they are making decisions based on solid data.

3.

Does the organisation contain information silos?



The organisation must encourage each function to have access to the outputs of other teams. Inevitably, as different functions become familiar with each other's data they will want to react and use the data. Cross-functional teams can then be set up to maximise the value of insights developed across the organisation. For example:

- underwriters can help the reserving team by showing how the portfolio mix has changed and the impact it will have on future pay-out patterns
- reserving actuaries can show their incurred but not reported (IBNR) estimates to underwriters so that they are clear as to whether the book of business they are writing is performing close to their underwriting assumptions
- claims departments can highlight emerging risks and claims developments to underwriters and reserving

Automated feeds make it easier to have regular discussions around the analytical findings. Now these discussions can occur when it is convenient, rather than as a reactive process when an issue is finally escalated.

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The visualisation of data should be clear enough that a user with a relatively low level of analytical sophistication can pick out the core messages and respond. An inability to manipulate a pivot table or query a database should not prevent valuable human capital from participating in discussions. It is important that data can be easily visualised to help users make sense of it.

4.

Is performance measurement transparent?



The organisation must be set up so that the correct incentives are in place to reward performance. In particular, underwriters should be incentivised to write good business. Underwriters often have pricing adequacy targets but it is also essential that these key performance indicators (KPIs) are reviewed against actual results. Reliable and rich data on business written is the key to accurate judgment of underwriting quality. When underwriters and actuaries feel empowered to avoid unprofitable business and focus on profitable business, the overall business benefits.

Financial budgeting, planning and forecasting should be performed as routine, rather than on an ad hoc or intermittent basis. The process should take account of market realities with challenging but fair adjustments to accommodate the results (e.g. have motor premiums increased due to new cars sold or due to changes in rates?). A static 12-month forecast does not encourage an underwriting unit to look for new underwriting tactics, as the relatively short time window constrains their ability to review the relevant information and resolve any problems arising.

If a unit's performance is determined by factors outside of their control (e.g. a big deal was won halfway through the year, or government sanctions have prevented a unit from writing a portion of their portfolio), there is less incentive to improve performance as the KPIs are no longer relevant. Implementing dynamic targets and perpetual monitoring ensures that staff members are able to fulfil their objectives whilst obtaining value from the process.

## References

- 1    **Applied Insurance Analytics**  
<http://www.amazon.co.uk/Applied-Insurance-Analytics-Framework-Technologies/dp/0133760367>