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# GIRO Conference 2022

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**#GiroConf22**





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QBE

# Walk the talk – the trials and tribulations of building a market leading Pricing Data Science team

Amar Kotecha FIA  
Alex Hanks FIA

**#GiroConf22**







Generated using Open AI's Dall-e-2 model <https://openai.com/dall-e-2/>

**Asked DALL-E for:**

**“A Banksy painting of how to build a market leading Pricing Data Science team”**



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***To be the market leading Pricing Data Science team, working with Underwriters to deliver profitable business, investing in the development of every team member to build expertise in both insurance and data science and providing them with the tools and data that they need to excel in their roles.***

**Alex Hanks FIA**

Head of Pricing and Data Science

- Joined QBE March 2022
- Previous roles in Broking/Consulting/(Re)Insurance
- MSc in Data Science and Machine Learning
- Chair of IFoA Data Science Member Interest Group 2018-19
- IFoA Modelling Analytics and Insights from Data Working Party 2016-18

**Amar Kotecha FIA**

Head of Pricing Data Science Transformation

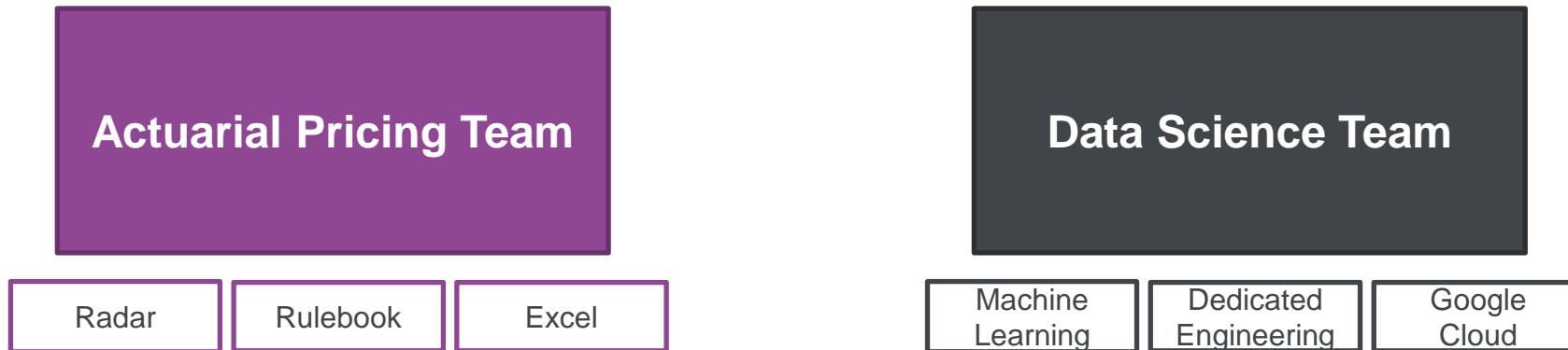
- Joined QBE March 2020
- Background in Reinsurance Pricing
- Data Science Specialisation - Coursera
- Consulting experience within the Pricing space



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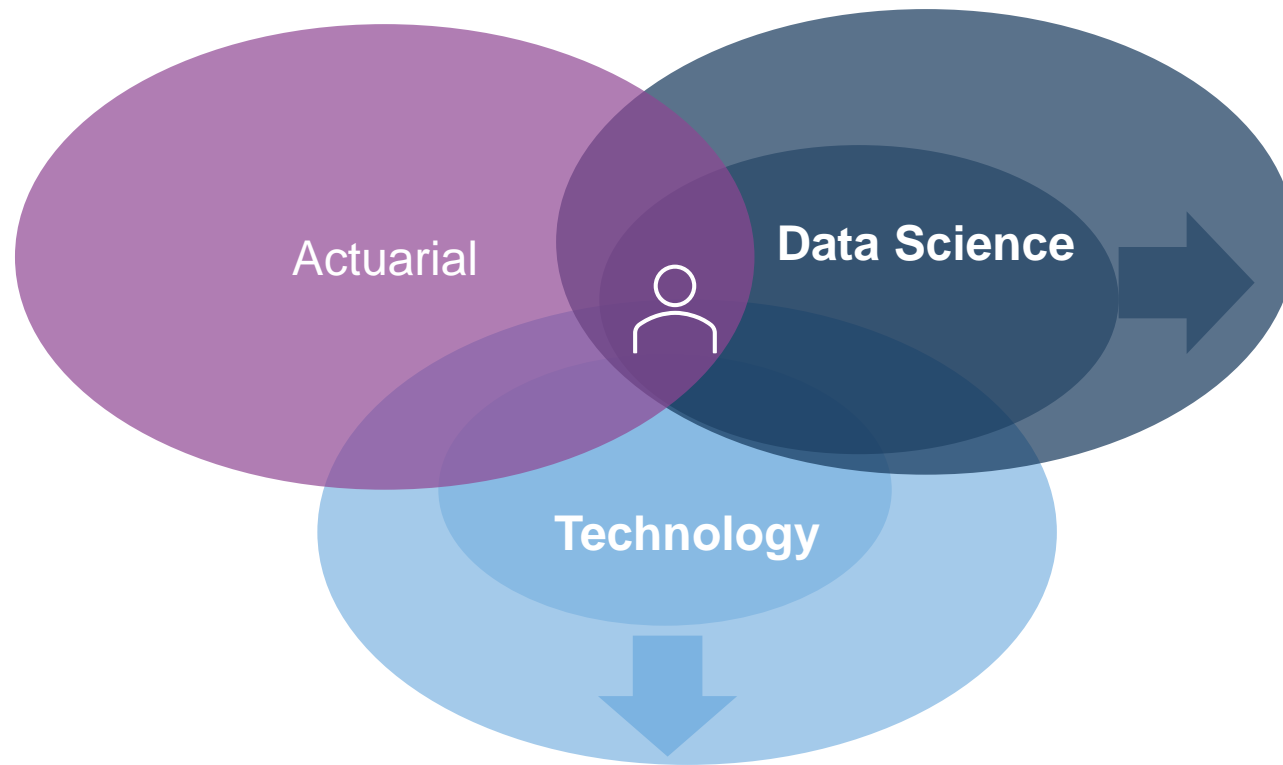
# Background on the Pricing and Data Science teams

- 40 Pricing and Data Science specialists in 2023, increase from 30 in 2022
- Pricing and Data Science were separate teams until 2019
- Supporting the pricing of \$5 Billion of annual premium
- Working with Underwriters across the UK, Europe and Lloyd's and London Markets.



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# Pricing roles are increasingly spanning three domains



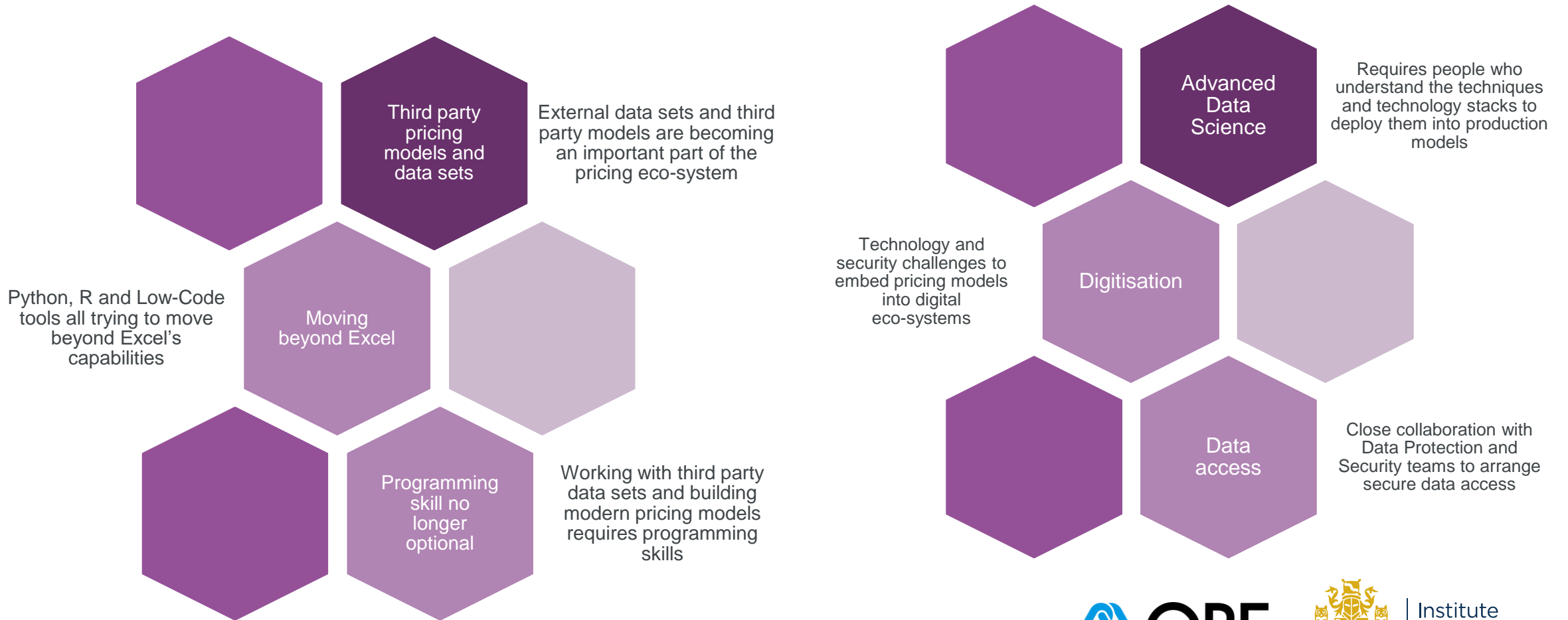
Increasing use of non-traditional third party data sets and machine learning techniques

Demand to integrate models into broader digital infrastructure involving cloud, dashboards, APIs and close collaboration with IT teams



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# Several new themes are emerging in pricing work

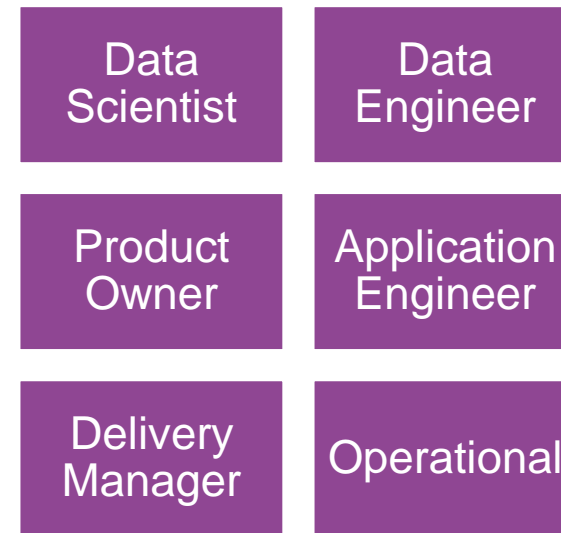


# Companies hire Data Scientists in isolation

QBE started its Data Science team in 2017 and fell into a number of common pitfalls in doing so



A number of key roles are required to support Data Science teams, including:



It's possible to find “unicorn” Data Scientists where the skillset is broad enough to tackle the above issues alone. But this is rare and not scalable longer term.



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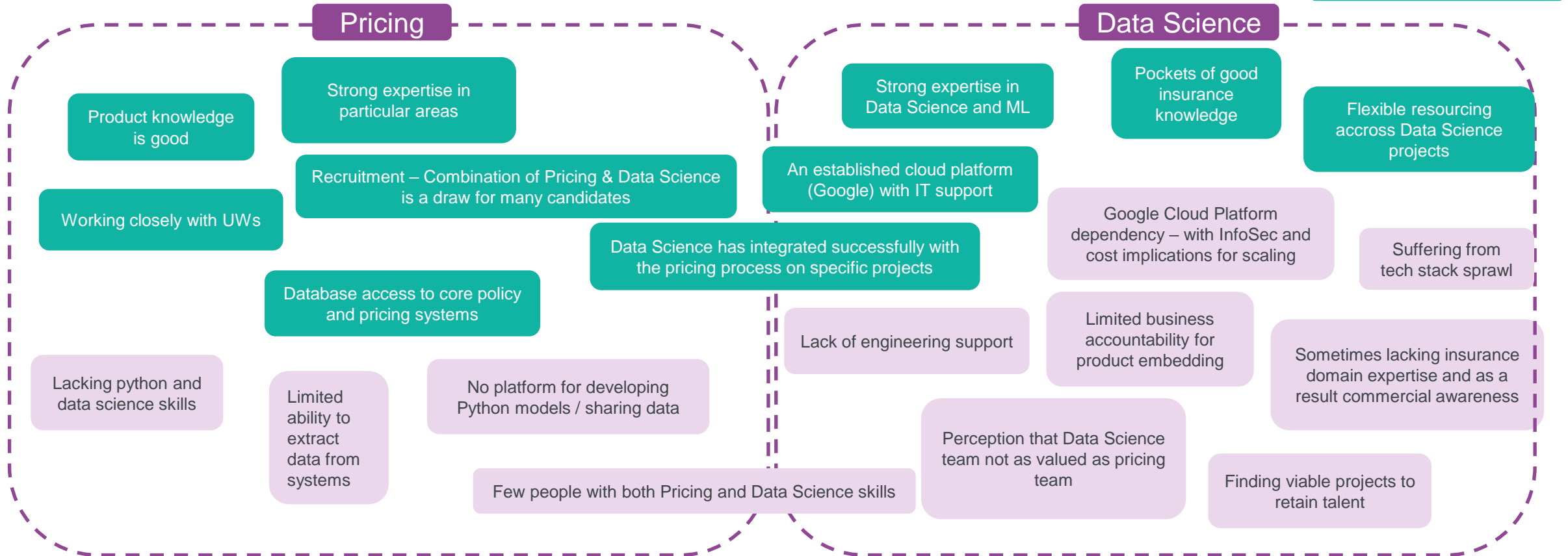
# The strengths and weaknesses we had within the two teams

Needed improving

Already working

## Pricing

## Data Science



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# What we are doing

## Investing in People

Material investment of time and money in people development

Recruit and promote to improve team diversity

Fuse a pricing and data science skillset in all team members

## Team Structure

A single Pricing Data Science team, with no 'and'

Working closely with underwriters and accountable to the business

Organised by product with a pool of flexible resource

## Common Infrastructure

Working with a simple data science platform, scalable within International and ultimately across Divisions

Make it easy for users to access data, develop, share and deploy models

Aligned with Underwriting Workbench and e-Trading



3-5 years of people development and recruitment

Pricing Data Science



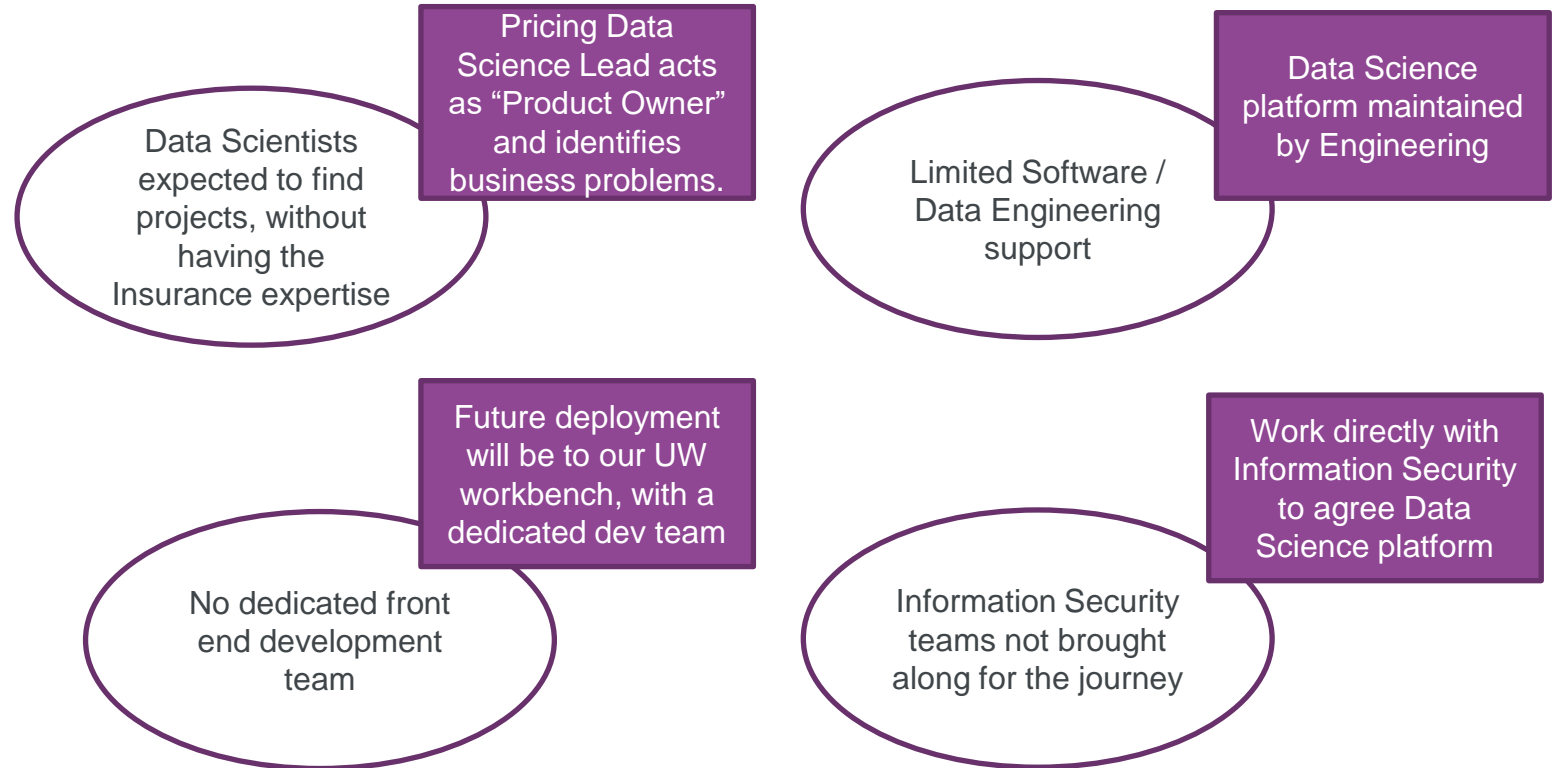
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# How will this address our key issues

Key to enabling the vision is to ensure those from an actuarial background are sufficiently trained in various Data Science skills (Analytics, Coding, Databases, Modelling)

With this skillset, Pricing Actuaries can act as the bridge between the business and the Data Scientists.

## Specific Data Science Issues being addressed



# Questions

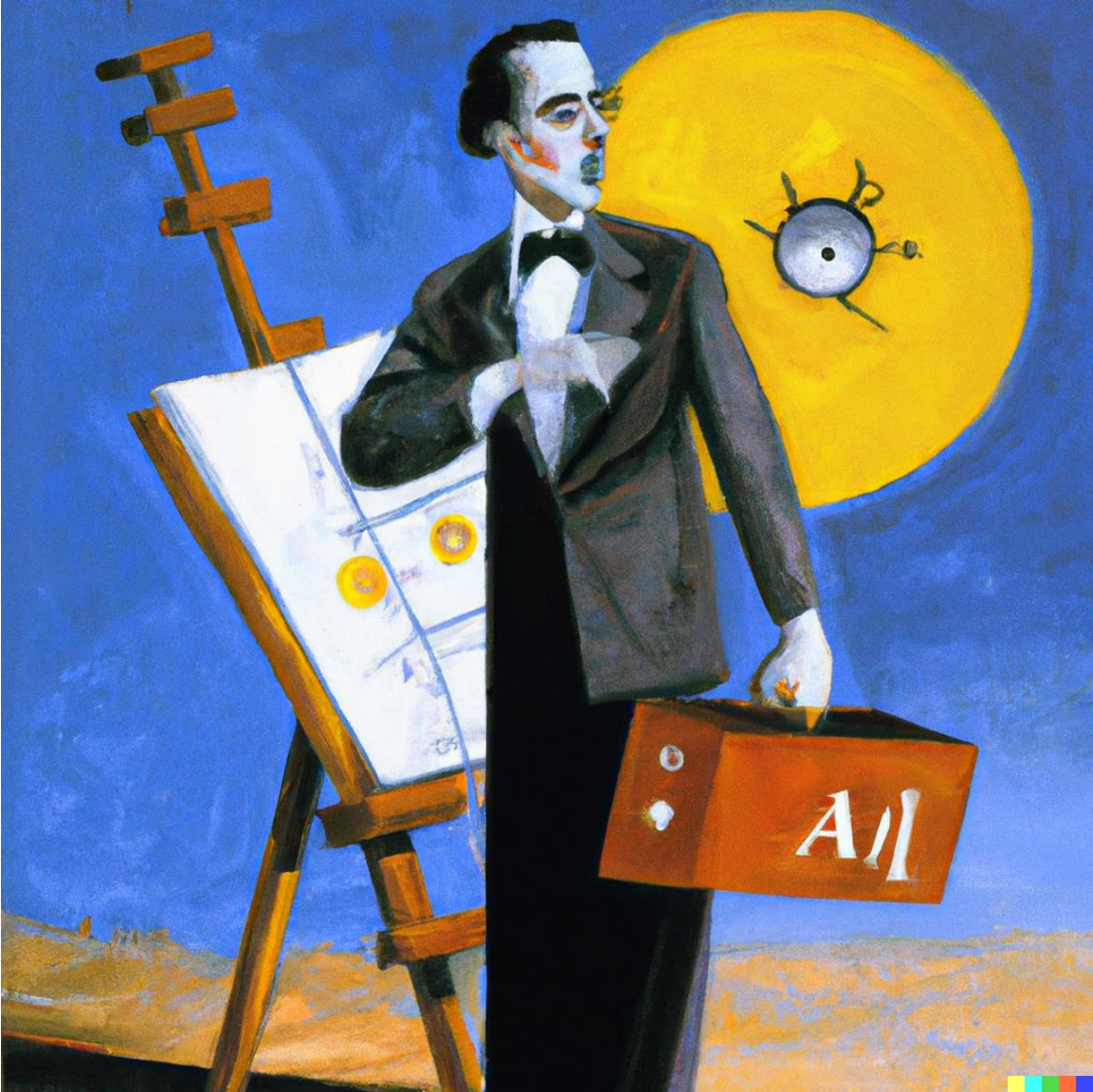
# Comments

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



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“A Salvador Dali painting of an Actuary Data Scientist”



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# Thank you



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