Pension Valuation Dashboard

GAD provides actuarial advice on all the main UK public service pension schemes, which affects around 15 million people in total. This involves a substantial amount of data, and work, for our staff. By standardising processes and developing efficient pipelines, we can focus on insights rather than number crunching.

As part of the government's <u>National Data Strategy</u> and <u>National AI Strategy</u> there is an ambition for departments to support data-driven policy decisions and realise the potential of powerful AI techniques.

Our work in developing efficient pipelines supports this ambition by enabling our actuaries to gain insights from the data more quickly. In addition, the use of interactive dashboards helps us visualise and understand the meaning behind the results and ultimately help us share the main messages with our clients.

Pension Valuation Dashboard

When undertaking a valuation, our actuaries need to understand the answers to key questions including:

- How have the pension liability and contributions changed since the previous review and what the key drivers are?
- What the employer contribution rate will be over the next implementation period?
- Whether member benefits and/or member contributions need to be altered?

As part of the tool GAD has developed, a data pipeline is created in the Python programming language. It's used to answer these questions efficiently and in a standardised way across the pension schemes we value.

After a user selects a scheme, the tool delivers the results on an interactive dashboard. It then separately provides a comprehensive audit trail of the calculations.

Pipeline benefits

Across government there are many models, often Excel based, and processes which exist that perform similar functions and require substantial amounts of time to update and maintain.

GAD is benefiting from developing pipelines that enable different models to be combined and streamlined. Please contact us if you are facing similar challenges.

• single centralised code file means only one model needs to be updated if the calculation methodologies require updating, rather than multiple

models

- faster processing speed
- ability to utilise larger volumes of data
- better consistency in calculation processing and output formats across schemes (so it is easier and more efficient for the people involved and more robust against errors)
- clearer documentation of calculations for users
- greater level of automation leading to reduced risk of errors
- more intuitive experience for users
- users cannot accidentally alter the underlying calculation code while using the dashboard

Developing our data science capability

Over the last couple of years GAD has been improving its data science capabilities through recruitment, training and through the practical experience gained when using data science techniques. These techniques complement traditional actuarial approaches on many client projections, including this one. For example, we:

- use GitHub for version control and audit processes
- follow coding best practice, such as using functions to calculate each dashboard block so it can be reused consistently multiple times
- have improved our consistency of processing across schemes which has increased efficiency of linking/chaining models together. This means it's easier to automate picking up outputs from one model and feeding them in as inputs to another model.

Please contact GAD if you would like to discuss your how you can utilise data science techniques in your work and help government achieve its strategic ambition in this area.

Scotland Office Minister Malcolm Offord to attend first Islands Forum in Orkney

- First Islands Forum in Orkney will help to level up island communities and work together on shared opportunities and challenges
- Representatives from island communities in England, Scotland, Wales and Northern Ireland and the devolved governments will attend
- Opportunities around net zero a key focus for the first meeting

The Chancellor of the Duchy of Lancaster and Minister for Intergovernmental Relations, Nadhim Zahawi, will chair the first Islands Forum in Orkney on 28

September 2022. It will be attended by UK Government Minister for Scotland Malcolm Offord.

The Forum, which will take place at Orkney Research & Innovation Campus, will ensure island communities are able to discuss solutions to common challenges, with a significant focus for the first meeting on opportunities around net zero.

Council leaders and chief executives representing all eligible island communities across the UK will take part, as well as ministers from the Scottish and Welsh governments and representatives from Northern Ireland.

The programme will also include a session with the regulator, Ofgem. This will allow island representatives to share their views on regulatory barriers to net zero ambitions and explore next steps to address them.

Participants will also undertake a tour in Orkney focussing on renewable energy, hosted by Orkney Islands Council and European Marine Energy Centre.

Chancellor of the Duchy of Lancaster, The Rt Hon Nadhim Zahawi MP, said:

As the new Minister for Intergovernmental Relations, I am delighted to be chairing the first Islands Forum in Orkney next week with the purpose of giving our islands a stronger voice.

It is often said that people make a place, and this is certainly true of the UK's island communities, who contribute a huge amount to our country but often face common challenges.

I look forward to hearing directly from island communities and working closely with the devolved governments on the issues that matter most to local people, making good on our promise to deliver for the whole United Kingdom.

UK Government Minister for Scotland Malcolm Offord said:

We want to talk with our crucial island communities to understand how best they can flourish and make the most of the opportunities presented by, for instance, their renewable energy resources.

The new Forum is a tremendous opportunity to draw on the collective expertise of people from islands right around the UK coastline, from Scilly to Shetland, to share both solutions to challenges and best practice. I look forward to what I am sure will be a highly productive event.

<u>Sir Patrick Vallance supports fusion</u> <u>energy and Culham progress</u>

Government Chief Scientific Adviser, Sir Patrick Vallance, visited the UK Atomic Energy Authority (UKAEA) today to learn about the transformative potential of fusion energy in the global fight against climate change.

Sir Patrick was joined by Ministry of Defence Nuclear Scientific Adviser, Bill Lee, for a briefing on the UK's world-leading fusion programme, including the first prototype fusion energy powerplant, STEP (Spherical Tokamak for Energy Production).

The delegation took the opportunity to learn more about innovative businesses based at Culham Science Centre in south Oxfordshire, including General Fusion, Reaction Engines and Oxbotica.

UKAEA's Culham campus is currently undergoing a major regeneration programme and has become a hub for fusion energy and adjacent technologies, such as robotics, computing and advanced materials.

Sir Patrick Vallance said: "It was fantastic to visit UKAEA today and see first-hand the exciting potential of fusion technology and the rapid progress being made. UKAEA's ongoing contribution to fusion research and demonstration is helping to solve one of the world's greatest challenges in decarbonising our global energy systems, as well as advancing a range of critical science and technology areas."

Professor Ian Chapman, UKAEA Chief Executive, added: "We believe fusion energy can be an environmentally responsible part of the world's future energy mix and it was fantastic to discuss the ground-breaking research and innovation being done here in the UK with Sir Patrick.

"UKAEA continues to create jobs and drive economic growth in fusion-focused and adjacent fields, while helping to keep the country at the forefront of the international scientific community."

The tour of UKAEA's Culham campus concluded with a visit to on-site training centre, Oxfordshire Advanced Skills, where the delegation met apprentices from a range of companies.

Partner with the Open Innovation Team

The Open Innovation Team has always worked in close partnership with universities. With our existing university partnership deal coming to an end

in December 2022, we are now inviting bids from UK universities wishing to partner with us for the next three to five years.

We welcome bids from all UK universities. Interested parties can download all relevant documents below. The deadline for applications is midnight on 21 Oct 2022.

Introducing the Open Innovation Team (PDF, 3.02 MB, 20 pages)

<u>Partnering with the Open Innovation Team briefing and guidance</u> (PDF, 426 KB, 10 pages)

Partnership application form (MS Word Document, 37.7 KB)

Partnership application form (ODT, 28.4 KB)

Labour Party Political Member appointed to the House of Lords Appointments Commission

Press release

Baroness Taylor of Bolton has been appointed as the Labour Party Member of the House of Lords Appointments Commission.



Following Baroness Taylor of Bolton's nomination by the Labour Party, her appointment was confirmed formally as the Labour Party Member of the House of Lords Appointments Commission (HOLAC). Baroness Taylor commenced her role on 11th September 2022, when Lord Clark of Windermere's term came to an end.

Baroness Taylor of Bolton

Baroness Taylor of Bolton was the first woman to serve as Leader of the House

of Commons and Lord President of the Privy Council in 1997. She went on to become the first woman to serve as Government Chief Whip (Parliamentary Secretary to the Treasury). Baroness Taylor is the former MP for Bolton West (1974 – 1983) and Dewsbury (1987 – 2005) and was made a Life Peer in 2005. She currently sits on the Industry Regulators Committee, Procedure and Privileges Committee, and the Lord Speaker's Committee on the Size of the House.

Minister of State at the Cabinet Office, Ed Argar, welcomed Baroness Taylor's appointment, saying:

I would like to congratulate Baroness Taylor on her appointment to the Commission and I am grateful to Lord Clark for his service over the last five years. Baroness Taylor brings to the role a depth of experience and public service that will be of huge value to the Commission in its work.

Notes:

HOLAC has two main functions:

- to recommend individuals for appointment as non-party political life peers; and to vet nominations for life peers, including those nominated by the UK political parties, to ensure the highest standards of propriety.
- Political Members are nominated by their party leader, and appointed by the Prime Minister for five year non-renewable terms. More information about HOLAC can be found on their website.

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