

# **APS Data Professional Stream**

Mid-point program report

September 2021



### Contents

**Foreword** 

**Introduction** 

What does program success look like?

How initiatives fit into an APS Data Professional Employee life cycle

**Summary - Progress of initiatives against the Strategy** 

**Strategy Theme 1. Establishing the Profession** 

**Strategy Theme 2. Getting it right from the start** 

Strategy Theme 3. Developing sophisticated and specialist data capabilities

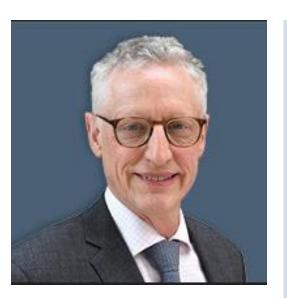
**Strategy Theme 4. Embedding a professional workforce** 

Appendix a. Program background

Appendix b. Status of initiatives underway



# Foreword: Dr David Gruen, Head of the Data Profession and Australian Statistician



As Head of the Data Profession, I am proud of the progress the Data Professional Stream has achieved against its ambitious work program. There has been rapid growth and diversification of the data ecosystem, which provides strong support for the use of data to inform policy and effective service delivery, which are critical elements of the work of the public service. A number of initiatives have been undertaken in the first year to establish a data literate APS workforce, with highly capable sophisticated and specialist data professionals. I'm particularly impressed by the success of the first APS Data Graduate Program, with 216 data graduates entering the APS into 15 agencies. We will further grow this Program in year two. I'm excited by the success of our immersion program using cross agency mobility as an effective way to lift data capability between and within agencies and I encourage all agencies to engage with this program. I have enjoyed engaging with the network of data professionals though the quarterly newsletter and my In Conversation series. There are more videos in the pipeline over the next 12 months, in addition to networking events planned which I am looking forward to. I'm especially pleased by the many partnership initiatives that will see the development of the APS data capability framework, increased SES data capabilities, defining of data roles, and the development of general data literacy pathways. Constructive and collaborative partnerships with the APSC and a broad array of APS agencies are delivering very positive results for the development of the Data Profession and I look forward to even stronger results in year two of the program!

# Introduction: Jenet Connell, Senior Responsible Officer



Year one of the Data Profession has, by design, been one of establishing key, foundational elements to support an enduring profession. Much has been learned during the first year which is helping to shape our planned efforts for the year ahead. This report gives the reader a sense of what the Data Profession has achieved in year one, and our plans for its second year. The report considers progress of initiatives against agreed strategic priorities and success factors, as endorsed by the APS Commissioner and the Secretaries Board. I thank the team here at the ABS for their continued efforts, and the many agencies who are actively part of bringing a successful Data Profession for the APS to fruition.

### What does program success look like?

### **Beneficiaries** Outcomes · Agencies attract, develop and retain staff with sophisticated and specialist data skills **GOVERNMENT** · Agencies build a more diverse data workforce **AGENCIES** Agencies foster a culture of data excellence Agency decisions are informed by fit-for-purpose data and sound analysis. Data Professional have appropriate entry-level data skills Data Professional staff become more confident and capable data producers and users throughout their careers **APS STAFF** • Staff access professional network and communities of practice • Data professionals are more mobile and have access to data career pathways · Staff have a clear understanding of the competencies and behaviours expected of APS data professionals.



#### **Outcomes for the APS**

- More efficient and better policy advice and service delivery for Australians
- Improved, data-driven agency decision making
- Increased professional collaboration between agencies and with academia, and
- Increased public trust in Government to collect share and use data appropriately.

### Benefit themes APS Data Professional Stream will use to measure success:

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals
- 3. APS agencies will attract, develop and retain a highly talented APS workforce.



# How initiatives fit into an APS Data Professional Employee life cycle

#### **APS Data Professional Stream Attract & Recruit Learn & Perform Reward & Recognition Engage & Retain Develop Career** Generalist Generalist Generalist Generalist, Specialist and Generalist, Specialist and **Employee Value Data Literacy Pathways** Immersive learning SES: SES: Proposition Capability assessment **Employee Value** Professional member tool **Proposition** benefits Communities of practices Standards & Network engagement accreditation Specialist Specialist Specialist Job roles **Employee Value** Capability assessment Career pathways Proposition tool Immersive learning ABS/ATO specialist Streamlined Data speaker series **Graduate Recruitment** Streamline Specialist Learning pathways Recruitment (Geospatial) SES SES SES SES Job roles Data expert on **Data Masterclass** recruitment panel



# Summary - Progress of initiatives against the Strategy

#### **Overall Status: Green**

In the Data Professional Stream Strategy there were 15 initiatives outlined across 6 objectives and 4 strategy themes. Of these 15 initiatives, 5 were achieved, 7 are in progress and 3 are to be commenced in Year two. We have measured our success in Year one by aligning benefit themes with progress against initiatives. Year one of the Data Professional Stream (DPS) focused on establishing the network and building foundational programs and products that will enable capability uplift. Measures of success will continue to evolve as the program matures and program delivery shifts into embedding a professional data workforce over the next 12 months.

### Strategy theme 1. Establishing the Data Professional Stream - Green

- Establishment and engagement of the DPS is on track with the growth of agency participation in governance fora and project working groups.
- Engagement with members has increased with the growth of membership increasing from 498 members in December 2020 to 1521 members as of September 2021.
- The DPS will continue to build on this engagement with other agencies and members to increase networking and instil a culture of data excellence.

### Strategy theme 2. Getting it right from the start - Green/Amber

- Strategy theme 2 is green/amber due to not strongly pursuing building diversity into data roles or entry level qualifications in Year 1 of the program.
- This was due to the prioritization of the other objectives within this theme such as the streamlined recruitment of data graduates and the inclusion of a data expert on senior recruitment panels.

# Strategy theme 3. Developing sophisticated and specialist data capabilities - Green

- Most of the efforts of the DPS were directed at achieving progress against Strategy theme 3. This effort encompassed broader data capabilities with foundational initiatives such as the APS Data Capability Framework (DCF) highlighted as a top priority by governance groups.
- The DCF in addition to others such as data literacy, immersive learning, job roles and SES data capabilities are progressing well.
- These will continue to progress into Year 2 with the addition of commencing work on data specialist learning pathways.

### Strategy theme 4. Embedding a professional data workforce Amber

- Theme 4 is amber due to limited progress in defining and promoting career pathways, supporting professional communities and identifying professional standards. Other foundational projects were prioritised which will enable the effective delivery of these initiatives which are due to commence in year two of the program.
- An initiative that is in early stages is the Employee Value Proposition (EVP).
   This initiative is on track to deliver an EVP prototype and implementation actions by mid 2022.



### Progress against success measures – Strategy theme 1. Establishing the Data Professional Stream

### Objective 1: Set up the professional stream

**Benefit theme:** 1. Uplift and deepen APS data capability and instil a **Overall status: Green** culture of data excellence

- The objective to set up the professional stream involved the delivery of establishing a Senior Reference Group (SRG), Senior Working Group (SWG), identifying the Head of Profession and Developing a Professional Stream Strategy.
- The establishment of the data professional stream was successful with the appointment of Dr David Gruen as the Head of Profession. A Data Professional Stream strategy was developed and released on the 16 September 2020 and two governance groups were formed; the SRG and SWG.
- Both the SRG and SWG have been instrumental in shaping the Data Professional Stream Work Program, highlighting priorities, electing
  project leads and influencing the pursuit of initiatives that were not outlined in the original Strategy.

14 4 4 D 1 1 - 1' -			of the APS Data Professional Stream
i Wiedsiire 1 1 Kroda representatio	IN AT AMENCIES ENAMAEM IN TI	ne nrodress and co desidn	AT THE AVS DATA PRATESSIANAI STREAM
i ivicusuie 1.1 biodu iebieseiitutio	ii oi aaciicics ciiaaaca iii ci	ie biodiess diid co desidii (	or the Ara Pata riolessionaraticani

September 2020	September 2021
SRG - 11 agencies	SRG - 12 agencies (new member: Department of Defence)
SWG – 17 agencies	SWG – 26 agencies (new members: Commonwealth Grants Commission, Dept of Education, Skills and Employment, Dept of Social Services, National Indigenous Australians Agency, Treasury, Dept of Defence, Dept Veterans Affairs, Office of the National Data Commissioner, Dept of Agriculture, Water & the Environment)
No of project working groups - 1	No of project working groups - 6

### List of SRG and SWG agencies as of August 2021

AGENCY	Senior Reference Group (Band 3)	Senior Working Group (Band 1 / 2)	AGENCY	Senior Reference Group (Band 3)	Senior Working Group (Band 1 / 2)
ABS	$\checkmark$	✓	Defence	✓	✓
Health	✓	✓	PM&C		✓
DTA	✓	✓	Services Australia		✓
Geoscience Australia	✓	✓	AGD		✓
Home Affairs		✓	DVA		✓
APSC		✓	AFSA		✓
BOM	✓	✓	AIHW	✓	✓
DISER	✓	✓	DFAT		✓
ATO	✓	✓	ONDC		✓
DITRDC	✓	✓	NIAA		✓
DSS	✓	✓	DESE	✓	✓
DAWE		✓	Finance		✓
CGC		✓	RBA		✓

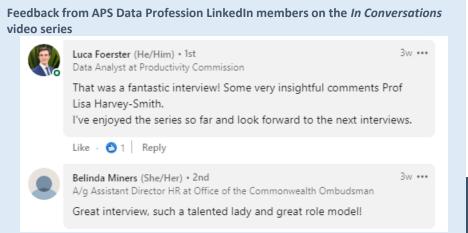


### Progress against success measures – Strategy theme 1. Establishing the Professional Stream

### Objective 2: Collaborate and network

**Benefit theme:** 1. Uplift and deepen APS data capability and instil a culture of data excellence.

- **Overall status: Green**
- There has been significant progress with establishing a Data Professional Network, which was one of the six initial signature initiatives for the Profession. A Gov Teams space and library was established, in additional to the mailing list. There are approximately 1,521 members of the Data Professional Network represented across 84 APS agencies.
- The Network was established to build professional capability through sharing experience and knowledge. The network is open to all APS staff in data roles and provides shared access to resources to promote learning opportunities and regular engagements.
- Four newsletters have been published on the APSC website with the aim of sharing knowledge and building connections.
- An APS only Data Profession Linked in page was launched in March 2020 and has grown to 680 members. This page has been used to increase connection, promote mobility opportunities and release relevant communication for members.
- The stream has collaborated with other networks and has aligned communications between the APS Data Network and APS Data Profession. From August 2021, all updates from the APS Data Network will be incorporated into APS Data Profession's communications materials, which is a valuable step into forming a more integrated community and network.
- There are currently four *In Conversations with Dr Gruen* videos available for data professionals to engage with. This key speaker series brings together data leaders and future thinkers from across the public and private sector and has received positive feedback from members.



# Progress against success measures – Strategy theme 1. Establishing the Professional Stream

Measure 2.1 Membership of Data Professional Network mailing list			
December 2020	September 2021		
Total members – 498 Agency figures N/A	Total members – 1521 Total federal agencies with members - 84 Total state agencies with members - 25 Total universities with members - 4		
Measure 2.2 Membership of APS Data Professionals LinkedIn			
December 2020	September 2021		
0	680		
Measure 2.2 Engagement with communications			
December 2020	September 2021		
Total <i>In Conversations</i> video views - 150  Average newsletter views per release - 526  APS Data Professional stream unique page views - 1526	Total <i>In Conversations</i> video views – 617 Average newsletter views per release - 574 APS Data Professional stream unique page views – 3.260		



### Progress against success measures – Strategy theme 2. Getting it right from the start

### Objective 3: Attract the right skills to APS data roles

**Benefit theme:** 3. APS agencies will attract, develop and retain a highly talented APS workforce. **Overall status: Green** 

- Streamlining Data Graduate Recruitment, Ensuring expertise in data recruitment and Building diversity into data roles were listed as part of the six initial signature initiatives of the Data Professional Stream and were all categorized under Objective 3 of the Strategy.
- The stream has progressed this objective by pursuing streamlined recruitment across the APS with the ABS leading the centralised recruitment of data graduates for the 2022 intake. The ABS partnered with 24 agencies, receiving 2,474 graduate applications and 216 verbal job offers accepted as of 22 Sep 2021. This engagement was successful with 11 agencies involved in the previous year.
- Additionally, the inclusion of a data expert on senior recruitment panels is due to commence from September 2021. This will ensure the right data capabilities are sought and appropriate credentials are maintained.
- A baseline of the APS data workforce was established using the APSED results with 5500 people in 24 agencies working in data-related roles. The Data Professional Stream will work with the APSC to get more detailed metrics of this APS profile by September 2022.
- Inclusion has been built into the professional stream by ensuring there is broad agency representation on governance fora and ensuring inclusion is a key design principle underlying all initiatives. Although a signature initiative, building diversity into data roles was not strongly pursued in Year 1 of the program.

# Measure 3.1 Agencies engaged in streamlined data graduate recruitment September 2020 September 2021 11 agencies 24 agencies



### Progress against success measures – Strategy theme 2. Getting it right from the start

### Objective 4: Ensure appropriate entry level qualifications

Benefit theme: 3. APS agencies will attract, develop and retain a Overall status: Amber

highly talented APS workforce.

The Data Professional Stream is part of a multi agency working group led by APSC to explore appetite and opportunities for pre graduate employment pathways into the public service. This is still in the exploration phase with the Profession undertaking more of a supportive role rather than leading initiatives in this space.

The work that the Profession has begun on developing an Employee Value Proposition will also feed into ensuring appropriate entry level qualifications with the intention of building a body of knowledge that will assist in the development of more targeted attraction and recruitment campaigns for the public service.

In collaboration with governance groups the initiative that has been prioritised under this Strategy theme is the recruitment of people with the right skills to the APS.



### **Objective 5: Enhance capabilities**

#### Benefit theme:

Overall status: Green

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals
- Initiatives included Designing job role profiles, Identifying and developing capabilities, Identifying and promoting structured learning opportunities and Encouraging learning by immersion. Developing sophisticated data users and Enhancing mobility in data roles were also part of the six initial signature initiatives of the Data Professional Stream and were all categorized under Objective 5 of the Strategy.
- A key piece of establishing the foundation of the Data Profession is the development of an APS Data Capability Framework (DCF). The <a href="Beta DCF">Beta DCF</a> has been released along with a User Guide that will be refined up until the Production is released in June 2022. More information on this Framework and its importance for progressing other Professional Stream initiatives are detailed in the <a href="Case Study: The APS Data Capability Framework a foundational project.">Case Study: The APS Data Capability Framework a foundational project.</a>
- A Data Literacy Toolkit developed by the Data Champions Network will be released shortly to support agencies in developing their data literacy programs. This Toolkit was presented and endorsed by the Deputy Secretaries Data Group (DSDG) on the 25 August 2021. Following on from this project, Services Australia has commenced work to curate data literacy offerings that are going to be more accessible and discoverable for agencies than current offerings.
- As part of developing sophisticated data users the ABS and Australian Taxation Office (ATO) collaborated to develop a seminar series featuring specialist speakers across both organisations to share their experiences in working with data. At this stage, this seminar series has been available for ABS and ATO employees only. Options to make this series available more broadly are currently being considered and will be implemented at the start of 2022.
- SES data capability principles being led by DISER is progressing in addition to the data leadership pilot course being run in collaboration with ANU.
- SES Capabilities and the APS DCF were not emphasized strongly as objectives in the strategy but early co design workshops with other agencies confirmed the need for the Profession to prioritise these projects to uplift data capability more broadly across the APS, not just for data professionals.
- Designing Job Roles is being led by the Australian Taxation Office (ATO). This project will deliver a suite of job roles by June 2022. These roles will include senior data leaders, specialist data producers and users, and data communicators and translators.
- Enhanced mobility was pursued strongly by the Data Professional Stream with opportunities identified to build and solidify data capability through immersion in data roles across APS agencies. The APS data fellowship program gives APS data specialists a chance to work with partner organisations on innovative data science research projects. This program was not explored in 2021 but options to pursue this are being considered for Year 2.



### Measure 5.1 Engagement in capability building initiatives - September 2021

### Immersive learning

- 12 secondments undertaken
- 6 evaluations completed
- 2 published articles on immersion experience in DPS newsletter
  - Learning through Immersion and Mobility: pilot experience with Alexis McIntyre and Martin Brady
  - Graduate Rotation Experience

### APS Data Capability Framework

- Project working group meetings each quarter
- 6 workshops conducted in September 2021 across different user groups (i.e. HR, SES, ABS managers, ABS employees, non data employees, non data managers).

### Data Leadership Pilot Course

- 2 pilot courses delivered in July-August 2021. 3<sup>rd</sup> pilot to be undertaken in early November 2021, with approximately 25 participants
- 45 SES enrolled from 11 APS agencies
- 46% of participants were female.

### ABS/ATO Specialist Speaker Series

• 16 seminars have been held.

### Data Literacy

- Data Champion Network project working group meetings
- Phase 2 of project working group led by Services Australia to commence in October 2021.



### Case study: The APS Data Capability Framework – a foundational project

The APS Data Capability Framework (DCF) is a significant initiative that defines the data skills, knowledge and behaviour required to perform in the APS. It provides clear and consistent language to use when talking about data capability needs, strengths and programs. It will also guide APS employees, managers and HR areas to perform and build data capability.

The DCF sits within the Data Professional Strategy as part of the signature initiative to develop sophisticated data users. After the Strategy was released, the scope for the Framework was expanded to include all APS employees, managers and agencies, and cover foundation through to advanced levels. This is in recognition of the critical role that data capability has to the APS.

The Framework is a foundation piece that will feed into a range of capability building and workforce initiatives being developed by the DPS, including:

- · Data capability assessment tool
- Learning pathways
- Data roles
- Career pathways

### Co-design has been key to this project

The cross-agency project working group has been pivotal in supporting the DPS team to understand needs and tap into different expertise and perspectives – both from a data and HR lens. Through this collaboration framework requirements were defined, a range of existing frameworks were reviewed and user needs identified. Taking these into account the working group and SRG endorsed the recommendation to use the New Zealand (NZ) Data Capability Framework developed by Stats NZ as a base to inform the APS DCF. The DPS team have also engaged with Stats NZ on their Framework and will share key insights from the development and testing of the APS DCF with them.

### **Engagement with user groups**

Throughout the month of September 2021, six user groups were engaged to provide early feedback and testing to feed into the framework release. These user groups consisted of HR groups, SES, ABS managers, ABS employees, non data managers and non data employees.

### Release of the Beta APS Data Capability Framework

The Data Professional Stream is very excited to have launched the <u>Beta APS Data Capability Framework</u> on the 30 September 2021. From here the DPS will continue to refine and review the DCF in the lead up to the production release which is due mid 2022. The DPS thanks all of the agencies that have been involved in progressing this initiative and looks forward to further engagement and partnering across user case studies and feedback on user adoption.



# Case study: Uplifting data capability through a 3 month secondment between the Bureau of Meteorology and the Australian Bureau of Statistics

The immersive learning program by the DPS focuses on providing a learning experience for high performing data professionals with advanced data skills, aiming for data capability uplift and transfer of key data expertise across the profession. By utilising targeted swap arrangements, the program aims to enable cross-pollination of context, experience, knowledge, skills and expertise across the APS. As part of this pilot the Bureau of Meteorology (BoM) and the Australian Bureau of Statistics (ABS) undertook a two-way secondment exchange program of three months duration.

### **Participant**

Ying Zhao (BoM) seconded to the ABS

### **Project**

Time-series clustering in Data Solutions Amazon Web Services (AWS)

### What were the benefits for secondees?

"I gained experience working with sensitive data, not just scientific data. This involved learning different policies and procedures for safe data use. I gained firsthand experience in doing development work in the Data Solutions AWS cloud computing environment. This is great as BoM are exploring using Amazon SageMaker for data scientists to study, build, train and deploy machine learning models, and I have had some experience at the ABS which has given me a head start."

### **Participants**

Daniel Gow, (ABS) seconded to BoM

### **Project**

Lightning forecasting using machine learning

### What were the benefits for secondees?

"The main benefits were broadening my technical skills, exposure to new ways of working and greater understanding of the broader data landscape. I'll be able to apply my recent experiences to ABS initiatives, such as coordination of the new sandpit environment for methodology staff. I've also broadened my professional network and will be co-authoring a paper with ABS and BoM colleagues for publication later this year."



### Progress against success measures – Strategy theme 4. Embedding a professional data workforce

### Objective 6: Retain and grow a workforce for the whole APS

Benefit theme: Overall status: Amber

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals.
- Initiatives articulated under this theme included Defining and promoting career pathways, Supporting professional communities and Identifying professional standards. These initiatives have not been actively pursued as a result of the prioritisation of establishing the professional network and uplifting capability.
- The DPS will identify project leads through governance groups and progress these in Year Two of the program.
- An initiative that has been progressed in Year One that was not outlined in the strategy but identified as a foundational requirement by the Working Group and SRG is the Employee Value Proposition (EVP).
- The EVP is currently evaluating the findings from 8 focus group which consisted of APS employees who work with data. These focus groups are providing the DPS the valuable information to learn more about public sector data professionals; their employment motivations, why they stay and also what could make them leave. Obtaining this deeper understanding will enable better success in attracting, developing and retaining data professionals in the service and providing them with opportunities to thrive in their careers.
- Detailed milestones for delivering the EVP can be found in Appendix C Employee Value Proposition.





# **APS Data Professional Stream**

Appendix a: Program background



# Introduction

☐ The 2019 Independent Review of the Australian Public Service (APS) found that the APS needed to make better use of data to deliver outstanding service. The Review recommended the establishment of Human Resources (HR), digital and data professions.	
In September 2020 the Australian Public Service Commission (APSC) appointed Dr David Gruen, Australian Statistician, as the inaugural Head of Data Profession and launched the Data Professional Stream and launched the Data Professional Stream Strategy.	
☐ The Program aims to ensure the APS workforce can attract, develop and retain the data capabilities required to harness the unprecedented growth the availability and value of data.	in
☐ The Program scope includes uplifting data capability for all APS employees well as professionalizing the recruitment, development opportunities and career pathways for data professionals.	as



# APS Data Professional Stream Strategy

The APS Data Professional Stream Strategy has four central themes and six objectives that all contain initial signature initiatives which were highlighted for Year 1 of the program.



Establishing the professional stream



Getting it right from the start



Developing sophisticated and specialist capabilities



Embedding a professional workforce

# Objective 1: Set up the professional stream

- Establish a Senior Reference Group
- · Identify the Head of Profession
- Develop a Professional Stream Strategy

# Objective 2: Collaborate and network

Establish professional network

# Objective 3: Attract the right skills to APS roles

- Streamline recruitment across the APS
- Develop an APS profile
   Build inclusion into the professional stream

# Objective 4: Ensure appropriate entry level qualifications

 Collaborate with the education sector to uplift entry level capabilities

### Objective 5: Enhance capabilities

- · Identify and develop capabilities
- Identify and promote structured learning opportunities
- · Encourage learning by immersion

# Objective 6: Retain and grow a workforce for the whole APS

- Define and promote career pathways
- Support professional communities
- · Identify professional standards

### **Initial signature initiatives**

Establish a Data Professional Network Streamline Data Graduate recruitment Ensure data expertise in recruitment

Build diversity into data roles

Develop sophisticated data users Enhance mobility in data roles VISION

A data literate APS workforce, with highly capable sophisticated and specialised data professionals to collect and use data appropriately to generate deeper insights, inform evidence-based decisions, and enable more effective service delivery

DESIGN PRINCIPLE THEMES The purpose of the *design principles* is to guide development of the Data Professional Stream.

#	Theme	Full principle	
1	Capability-building at the heart	The data landscape is complex. The Data Professional Stream is about building capability. While needing to be aware of the landscape in which it operates, it needs to focus on this aspect alone.	
2	Achievable and effective	Focus on the initiatives that present the better benefits and observable outcomes. Fewer, highly successful outcomes; versus multiple, marginally effective ones.	
3	Build on existing experience	Collect and build on existing initiatives for broader development and/or wider application.	
4	Co-design	Broad engagement across the APS, jurisdictions, tertiary institutes and other relevant organisations with partnering and co-design as the default approach.	
5	Enduring and inclusive foundations	Design foundational pieces that will provide enduring and inclusive support for the profession. This would include the use of language that has broad understanding and application.	
6	Adaptable and future focused	Design to allow for appropriate responsiveness to changing data (and digital) technologies and trends.	
7	Tailored and scalable	Develop initiatives with agencies' diverse needs and scale in mind.	
8	Balance inclusivity and specialisation	Design with a view to uplift base data capabilities for all APS employees, while provisioning for expert and specialised needs.	
9	Open Profession	Design with a view to participants coming in and out of the profession – including across other professions, industry and academia – and value formal and informal learning pathways.	

### Data Professional Stream 2-year work plan

A time bound two-year work program was designed with dual goal to establish the foundations required for a sustainable profession and start to uplift data capability for the APS.

- A series of workshops, led by the ABS, were held with over 20 partner agencies to understand the priorities and objectives for the data Professional stream in its first two years.
- From these findings, an initial 2-year work program was developed and agreed to by the Senior Working Group and Senior Reference Group.
- The APS Commissioner endorsed the work program in December 2020.

#### **EMBEDDING A** SUPPORTING THE HEAD OF **UPLIFTING DATA ESTABLISHING A FORMAL PROFESSIONAL PROFESSION PROFESSION CAPABILITY** WORKFORCE TARGET AUDIENCE HR PROFESSION **ALL STAFF** ALL STAFF - ENTRY LEVEL **DIGITAL PROFESSION APS COMMISSIONER DATA SPECIALISTS** TO SES **APSC SECRETARIES BOARD** Develop data literacy · Senior Reference and Data Capability · Communication and pathways (Services) **Working Groups** Framework promotion of programs Immersion learning • "In Conversation speaker Data role development INTIATIVES Collaboration for Digital experiences (ATO) series & HR Professional SES data capabilities Proactive promotion and Employee Value Data specialist recruitment Stream awareness raising **Proposition** panel · Standards & • Data graduate program accreditation framework ABS & ATO speaker series Communities of practice Inclusion Improved attraction, Improved foundational Widespread Initiatives delivered are development and **DUTCOMES** awareness and to sophisticated data maintained by the APSC retention of data engagement with the post the two year work literacy specialists More sophisticated and profession program Senior APS support specialist data skills and sponsorship

### APS Professions Framework governance

#### **Secretaries Board**

- Establish a Professional Stream to support strategic critical capability needs of the APS
- Appoint Heads of Professional Streams

### Head of Professions

- Set expectations for Heads of Professional Streams
- Endorse implementation strategies for Professional Streams
- Represent and promote professionalisation of the APS in various forums

### COO Committee

- Endorse Professions Framework from the broader operational perspective
- Endorse commencement strategies for Professional Streams

Heads of Professional Streams

- Set direction and provide guidance for Professional Stream in accordance with expectations set by Head of Professions
- Provide leadership and stewardship of Professional Stream
- Represent and promote Professional Stream in various forums

# SES reference groups

**Senior Working Group** 

• Advise Heads of Professional Streams on proposed initiatives and implementation strategies

# Implementing agencies

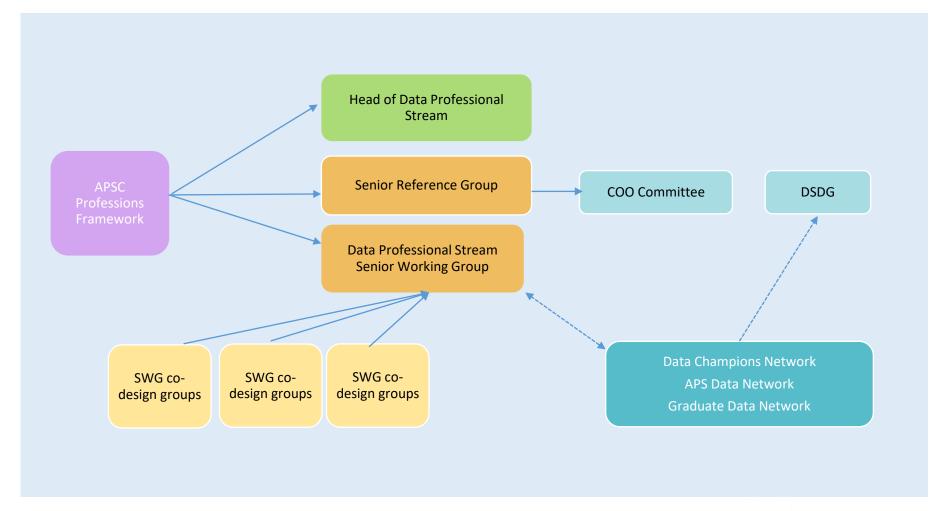
- · Support Head of Professional Stream to establish foundations, administer and deliver initiatives to achieve outcomes
- · Collaborate with other streams, APSC, agencies, industry bodies/associations to support governance and delivery
- Promote professional stream through various engagement strategies

### **APSC**

- Support Head of Professions and governance arrangements
- · Provide oversight, conduct monitoring, evaluation and reporting activities
- · Facilitate APS-wide communications, encourage collaboration and provide coordination across professional streams
- Progressively embed professions within APS architecture



# Data Professional Stream Senior Working Group relationship map







# **APS Data Professional Stream**

Appendix b: Status of initiatives underway as at September 2021



# Data Professional Stream – wider work program delivery

Priority	Initiative	Outcome from Strategy Year 1 (2020-21)
mal APS	APS Data Capability Framework developed that employees, managers and human resources areas can use when building data capability across the APS	Beta APS Data Capability Framework available for testing
Establishing a formal APS profession	Data professional network established	<ul> <li>1500 mailing list members</li> <li>670 LinkedIn members</li> <li>Gov teams space and library established</li> </ul>
Establishin profession	Employment Value Proposition developed	EVP focus groups being conducted
	Agencies are using immersion to uplift data capabilities	<ul> <li>Twelve secondments undertaken</li> <li>Six secondee evaluations undertaken</li> </ul>
<b>&gt;</b>	Data Literacy	Data Literacy toolkit produced
Building data capability	SES Data Capabilities	<ul> <li>ANU/ABS data literacy course delivered to 45 SES staff members</li> <li>Post course survey undertaken; one final course scheduled for early November 2021</li> </ul>
Building d	Data Graduate recruitment streamlined	<ul> <li>Recruited for 23 agencies</li> <li>Over 2,400 applications</li> <li>216 job offers</li> </ul>
ad of	Head of Profession engagement	<ul> <li>Four newsletters released</li> <li>Four In Conversation recordings available</li> </ul>
the hea	Establish fit for purpose governance fora	<ul> <li>Senior Reference Group established with 12 members</li> <li>Senior Working group established with 25 members</li> </ul>
Supporting the head of profession	Events	<ul> <li>First year anniversary video</li> <li>Events calendar in planning</li> </ul>



### **Initiative: APS Data Capability Framework**

### **Project lead - ABS**

### **Project Status**

#### Green

### Agencies involved

### Project working group

- ATO
- Dept Health
- DFAT
- Services Australia
- Geoscience Australia
- DSS
- NIAA
- DTA
- ABS

Phase	Key milestone/deliverable	Timing (end date)
Phase 1: Defining requirements, delivery	Project Working group established	January 2021
options and recommendation	Discovery and defining framework requirements	September 15 2021
	Options and recommendation	Late March 2021
Phase 2: Developing the APS Data Capability	Framework review and adaptation	Early August 2021
Framework (Beta)	Testing, engagement and refinement	Late September 2021
	Beta DCF released on APSC website	September 30 2021
Phase 3: Beta DCF user testing and	Targeted testing/case studies	Early May 2022
refinement	Non-targeted testing	
Data capability framework in production		30 June 2022
Phase 4: Evaluation and reporting back	Evaluation report	31 August 2022
Project close		Mid-September 2022

### **Outcomes**

- Provides a framework that can be used by APS employees, managers and human resources areas when sourcing, growing and mobilising data expertise across the APS, as well as building data capability more broadly.
- Will ensure consistency and provide clarity on language and structure regarding data capabilities to be used across other initiatives

#### **Benefits**

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will attract, develop and retain a highly talented APS workforce



### **Initiative: Employee Value Proposition**

**Project lead - ABS** 

Project Status
Green
Agencies involved
Project working group
• DISER
• CGC
• DFAT
• NIAA
• ABS

Phase	Key milestone/deliverable	Timing (end date)
Phase 1: Discover and define the EVP	Coordinate, prepare and facilitate discovery focus groups and synthesise data	October 2021
	Develop a series of prototype EVP models/designs	December 2021
Phase 2: Test and iterate	Targeted testing/case studies	Early Feb 2022
	Broader consultation across SWG agencies	End March 2022
Phase 3: Delivery	EVP and prototypes delivered	End May 2022
	Implementation options	July 2022
Phase 4: Recommendations	Provide recommendations for designing membership and professional standards models	Early-September 2022
Project close		Mid-September 2022

### **Outcomes**

- Agencies use the EVP for data profession recruitment, development and retention activities
- Professionals are recognised across the APS and experience APS wide careers as data professionals

### **Benefits**

3. APS agencies will attract, develop and retain a highly talented APS workforce



### **Initiative: Data Literacy**

### Project lead - Services Australia

Project Status
Green
Agencies involved
<ul><li>ABS</li><li>APSC</li><li>ATO</li><li>Defence</li></ul>

NIAA IP Australia DFAT Dept Health DISER

Infrastructure Home Affairs PM&C

Phase	Key milestone/deliverable	Timing (end date)
Phase 1: Data Champions project on Data Literacy and Data Communication	Data Literacy and Data Communication Project Report	End August 2021
	APS Data Literacy Toolkit	End August 2021
Phase 2: Developing General Data Literacy Learning Pathways	A curated suite of data DL development options, tied to a DL learning pathway that meets APS-wide requirements will be delivered	August 31 2022

#### **Outcomes**

- Improved data literacy across the APS workforce (foundation to sophisticated levels)
- Common language and understanding of data applied across agencies
- A learning pathways with curated data literacy options will be available to APS

#### **Benefits**

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals



### **Initiative: Immersive learning**

**Project lead - ABS** 

**Project Status** 

Green

**DISER** 

Agencies involved

BoM NSC DAWE Geoscience Australia

Phase	Key milestone/deliverable	Timing (end
Phase 1: Co-design and engagement	Apply user centered design to craft pilot immersive learning experiences	March 2022
	Evaluate immersion experiences for individuals and agencies	End October 2021
	Collate learnings and provide update to Senior Working Group for feedback	End October 2021
Phase 2: Develop framework and toolkit	Develop a framework, principles, guidance materials and/or toolkit	End Dec 2021
	Promote toolkit	Mid Jan 2022
Phase 3: Explore mobility to assist in critical data requests	Plan for piloting immersive learning experiences to assist in data skills requests	End Dec 2021
Phase 4: Evaluate immersive learning for capability uplift	Evaluate and provide recommendations for using mobility to achieve capability uplift	End May 2022
	Provide update to Senior Working Group and Senior Reference Group	End May 2022

#### **Outcomes**

- Transfer of key data expertise across the profession
- Enable cross-pollination of context, experience, knowledge, skills and expertise across the APS

### Benefits

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals



# Initiative: Embedding data capability and use across the APS (SES in non data roles) Project lead - DISER

Project Status
Green
Agencies involved
DAWE
DESE
NIAA
DFAT
Health
APSC
ABS

Phase	Key milestone/deliverable	Timing (end date)
Phase 1 - Scoping	Investigate and adapt existing role statements to include data expectations, capabilities and use.  Initial scoping workshop	Complete (May/June)  Complete (June)
Phase 2 - Workshops	SES workshops with DFAT, DAWE, NIAA	Complete (Julie)  Complete (July/Aug)
Phase 3 – Reporting	DISER workshop to consolidate/test material Final consolidation/testing of material	Sept/Oct Oct/Nov
	Final report to DSDG	Nov (or early

#### **Outcomes**

This project will establish the expectations of an SES officer in relation to the
effective use of data, and explore ways of developing, and applying
expected capabilities that can be used in all SES role descriptions (outside of
specialist SES data roles). It will recommend appropriate SES capabilities and
identify potential implementation pathways, risks and mitigations.

### **Benefits**

1. Uplift and deepen APS data capability and instil a culture of data excellence



### Initiative: Job roles Project lead - ATO

Project Status
Amber
Agencies involved
ABS
DTA
APSC
Health

Phase	Key milestone/deliverable	Timing (end date)
Phase 1 - Scoping	Identify key contributors	Start Sep 2021
	Determine roles and responsibilities	Early Oct 2021
Phase 2 – Research	Documentation and reporting	End Dec 2021
Phase 3 – Stakeholder engagement	Stakeholder identification and mapping	March 2022
	Engagement plan	
Phase 4 – Testing and implementation	Engaging with agencies to implement job roles	End April 2022

#### **Outcomes**

- Data Job Role Profiles will provide the building blocks for identifying data capability requirements and career pathways
- Establish a common understanding of baselines data skills, competencies and behaviours od data roles and career/learning pathways

### Dependencies

• The APS Data Capability Framework

#### **Benefits**

- 1. Uplift and deepen APS data capability and instil a culture of data excellence
- 2. APS agencies will offer staff clearer pathways and greater mobility over their careers as data professionals
- 3. APS agencies will attract, develop and retain a highly talented APS workforce



### Initiative: Establishing a professional network

**Project lead - ABS** 

Project Status	
Green	
Agencies involved	
SWG agencies SRG agencies	

Key milestone/deliverable	Timing (end date)
Newsletter 4 released	6 Oct 2021
Virtual events planning – target audience of sophisticated data users (e.g. peer based learning, hackathons & networking events, spotlight on data careers)	End Oct 2021
Release events calendar	Mid Nov 2021
Newsletter planning & release	Quarterly until end Sep 2022
In Conversations planning & released	Quarterly until end Sep 2022

#### Outcomes

- Broaden learnings, experiences and professional behaviours across the APS workforce
- Provide shared access to resources, promote learning opportunities, establish best practice and engage regularly
- Build connections and share knowledge to tackle problems where sophisticated data use may be the solution.

### **Benefits**

. Uplift and deepen APS data capability and instil a culture of data excellence

