HO Data Service & Analytics (DSA) PRJ8500 – DSA Data & Analytics Services (8th July 2024)

Disclaimer:

➢ This event is launched to provide a view of the further competition and further elaborate for PRJ8500 Data & Analytics Services within DSA

➢ We reserve the right to not to award a contract, to vary any structure, approach, scope, scale and timing of the procurement in progress in relation to this event

➢ The material does not necessarily reflect any specific Home Office policy; should any discrepancy arise official policy statements and publications take precedence.

➢ Existing commercial arrangements with suppliers will not be discussed.

➢ While we will seek to engage openly and respond to questions, we reserve the right not to answer questions where we believe it is not in our interest to do so.

Digital, Data
& Technology

Agenda

➢ 1.30pm - 1.35pm - Welcome and housekeeping – Heather Cover-Kus (Tech UK)

➢ 1.35pm – 1.45pm - Goal and Objectives / HO DDat Overview – Andy Gregory (Deputy Director – DS&A)

➢ 1.45 – 2.05pm - The Scope of the Procurement – Lisa Curphey (Programme Lead)

➢ 2.05pm – 2.35pm - What is Important to DSA – Michael Fisher - (Head of Operational Contract Management)

➢ 2.35pm – 2.45pm - Procurement and Next Steps - Chris Jones (DS&A Procurement Lead)

➢ 2.45pm – 3pm - Questions and Answers

➢ 3pm - Close

Digital, Data
& Technology

Goal

- To encourage the supply base to provide the best quality response possible to the forthcoming exciting £250m competition

Objectives

- To share our early thinking and provide the opportunity for the supply base to influence the ITT

- To encourage strong relationships to be formed to enable a strong supply chain based response

- To provide early insights to what we are looking for to allow the market as much time as possible to prepare ahead of the issue of the ITT

- To tell you about the associated materials we will be issuing for information and feedback purposes ahead of the competition

Digital, Data
& Technology

Early Market Engagement: Some Caveats

- We are providing early thoughts only. Nothing in this pack shall be taken as a commitment

- Whilst we will aim to be consistent with what we are telling you, DSA reserves the right to make changes to reflect internal, governance and supply chain feedback

- Whilst considered to be relatively low risk (given this covers largely BAU spend), changes to government may also impact the scope, scale and timing of this competition

- Whilst we are, in good faith, encouraging suppliers to invest in preparation, suppliers do so at their own risk

Digital, Data
& Technology

HO & DDAT - A complex and changing environment

Home Office Digital, Data and Technology (DDaT) is evolving to meet the complex and changing needs of the Home Office.

66M+
UK Citizens

6M+
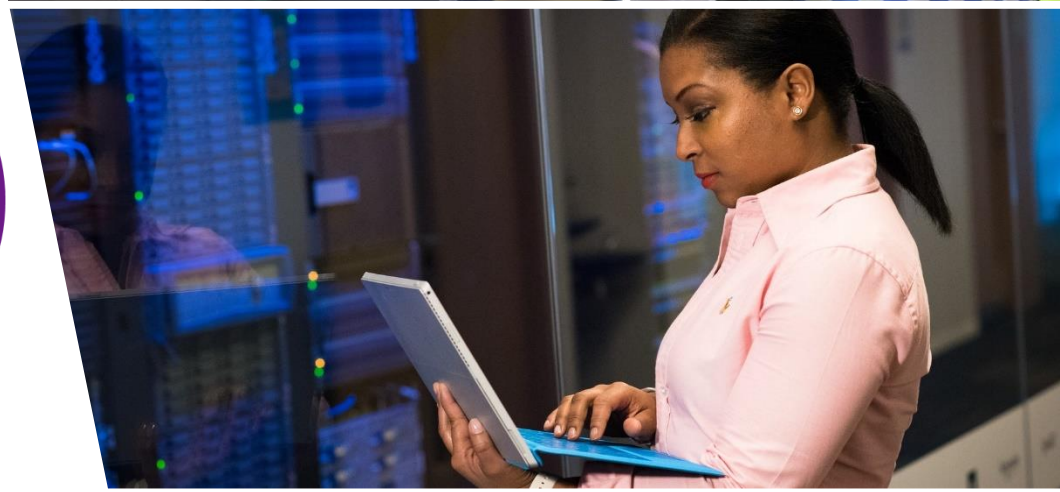Passport Applications Per Annum

140M+
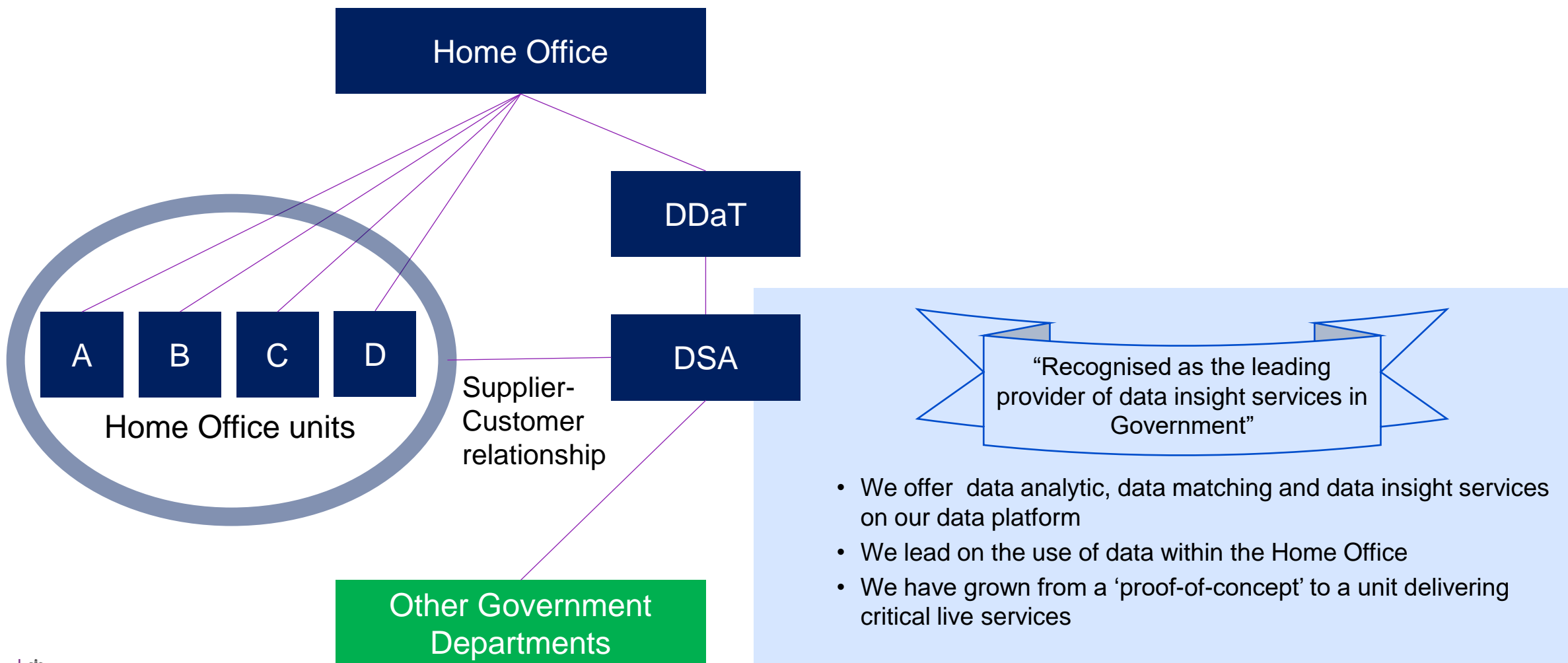Passenger Arrivals Per Annum

34K+
Home Office Employees

140
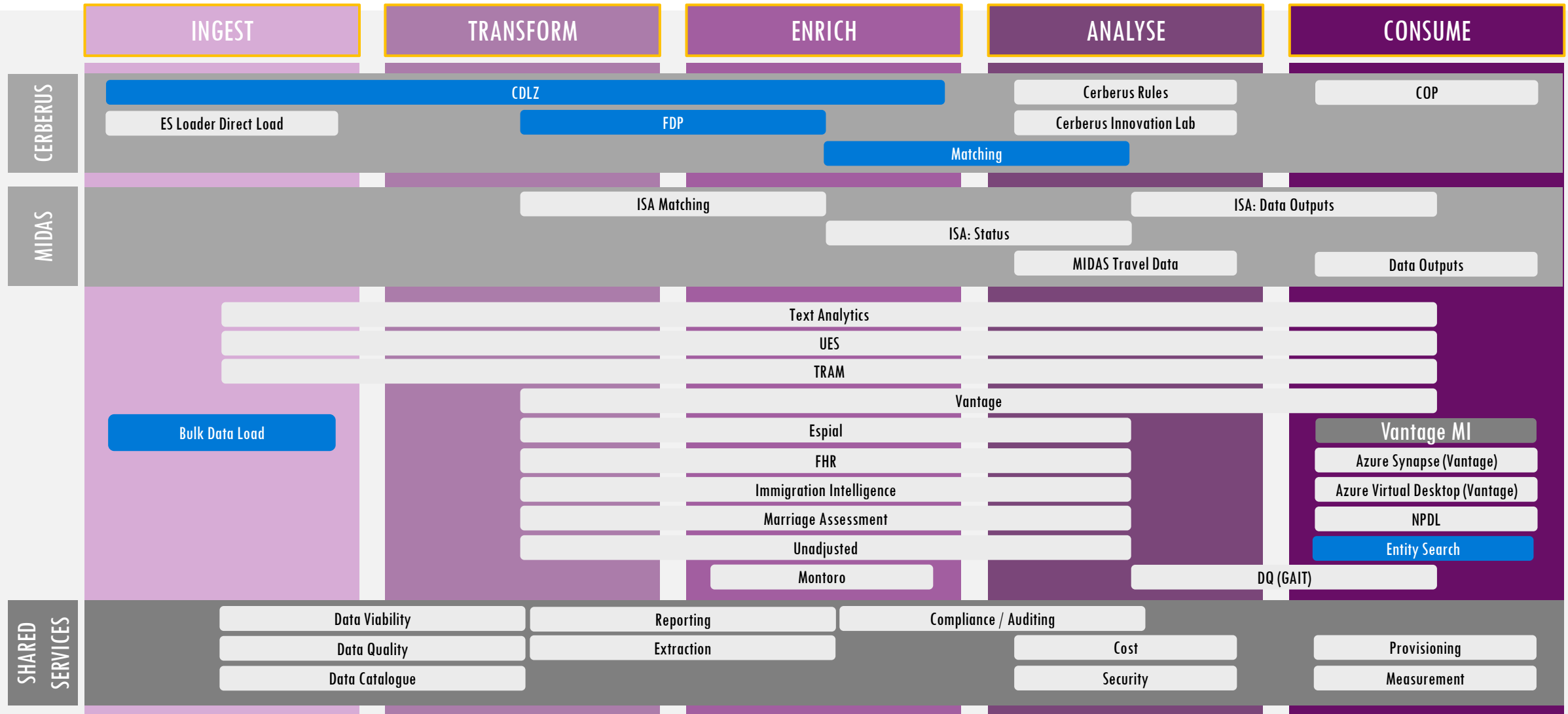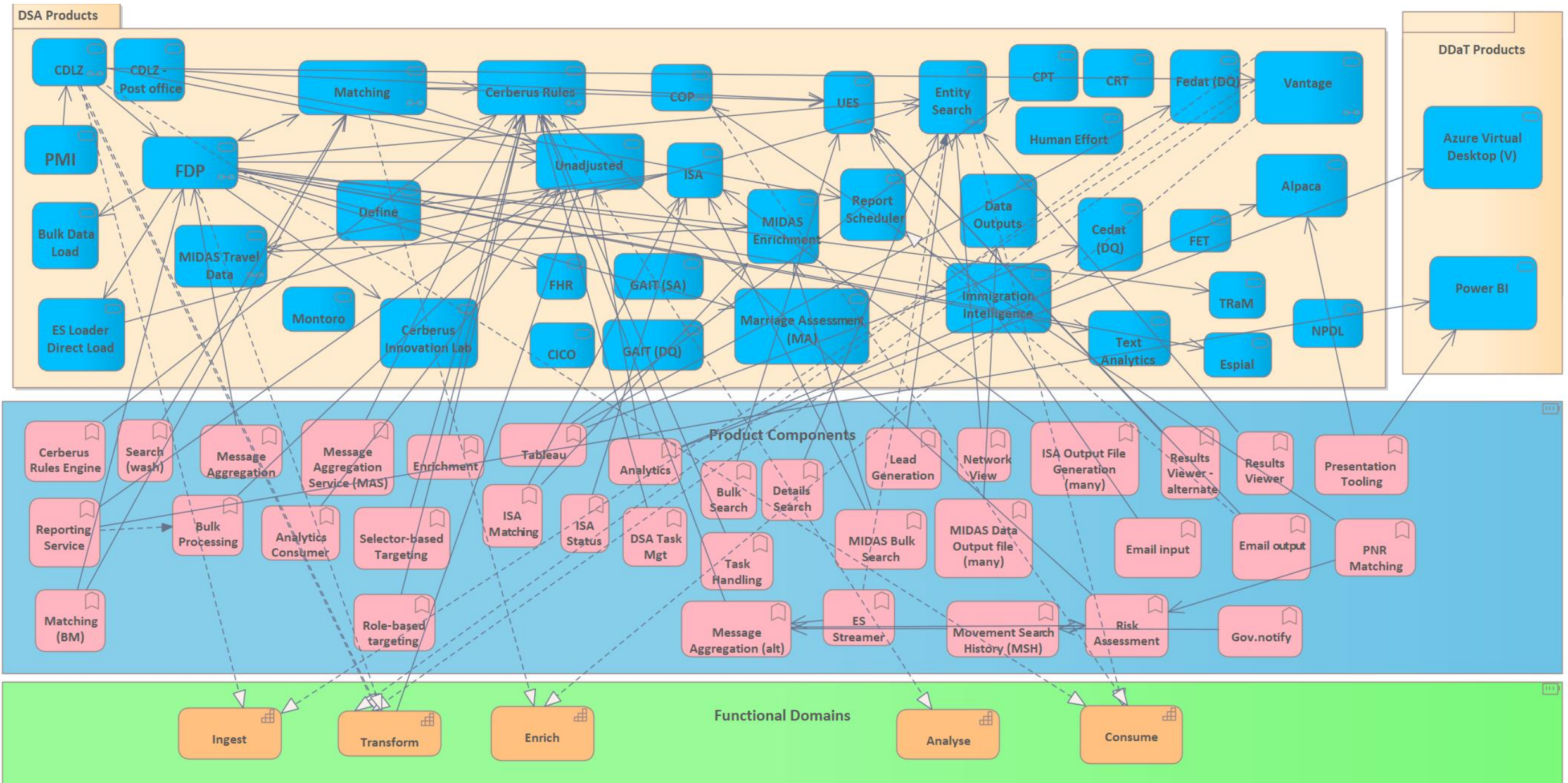Air & Sea Ports with Border Force Officers

43
England & Wales Police Forces

Digital, Data
& Technology

DSA – Data Services & Analytics

Home Office

DDaT

A B C D

Home Office units

DSA

Supplier-Customer relationship

Other Government Departments

"Recognised as the leading provider of data insight services in Government"

- We offer data analytic, data matching and data insight services on our data platform
- We lead on the use of data within the Home Office
- We have grown from a 'proof-of-concept' to a unit delivering critical live services

Digital, Data & Technology

To date DSA "Products" have been solution focussed …

	INGEST	TRANSFORM	ENRICH	ANALYSE	CONSUME
CERBERUS	ES Loader Direct Load	CDLZ / FDP	Matching	Cerberus Rules / Cerberus Innovation Lab	COP
MIDAS		ISA Matching	ISA: Status / MIDAS Travel Data	ISA: Data Outputs	Data Outputs
	Bulk Data Load	Text Analytics / UES / TRAM / Vantage / Espial / FHR / Immigration Intelligence / Marriage Assessment / Unadjusted / Montoro		DQ (GAIT)	**Vantage MI** — Azure Synapse (Vantage) / Azure Virtual Desktop (Vantage) / NPDL / Entity Search
SHARED SERVICES	Data Viability / Data Quality / Data Catalogue	Reporting / Extraction	Compliance / Auditing / Cost / Security		Provisioning / Measurement

Key:

Functional Domains	Defined Service	Product Capabilities	Product defined in Sparx

Digital, Data & Technology

DSA is becoming more "data" focussed

… resulting in a complex environment of functionality
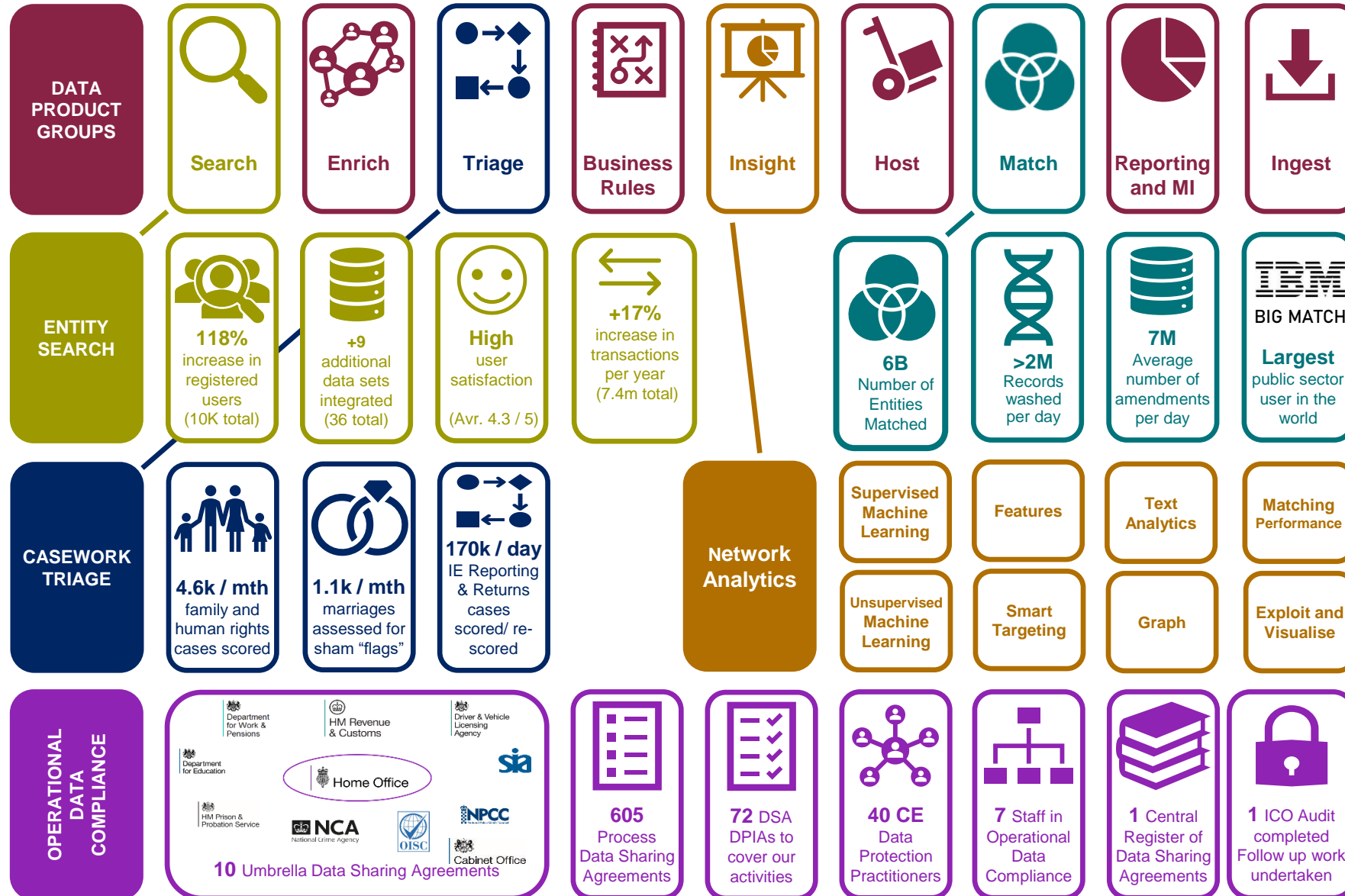
PCDP Release Data Progress Tracker
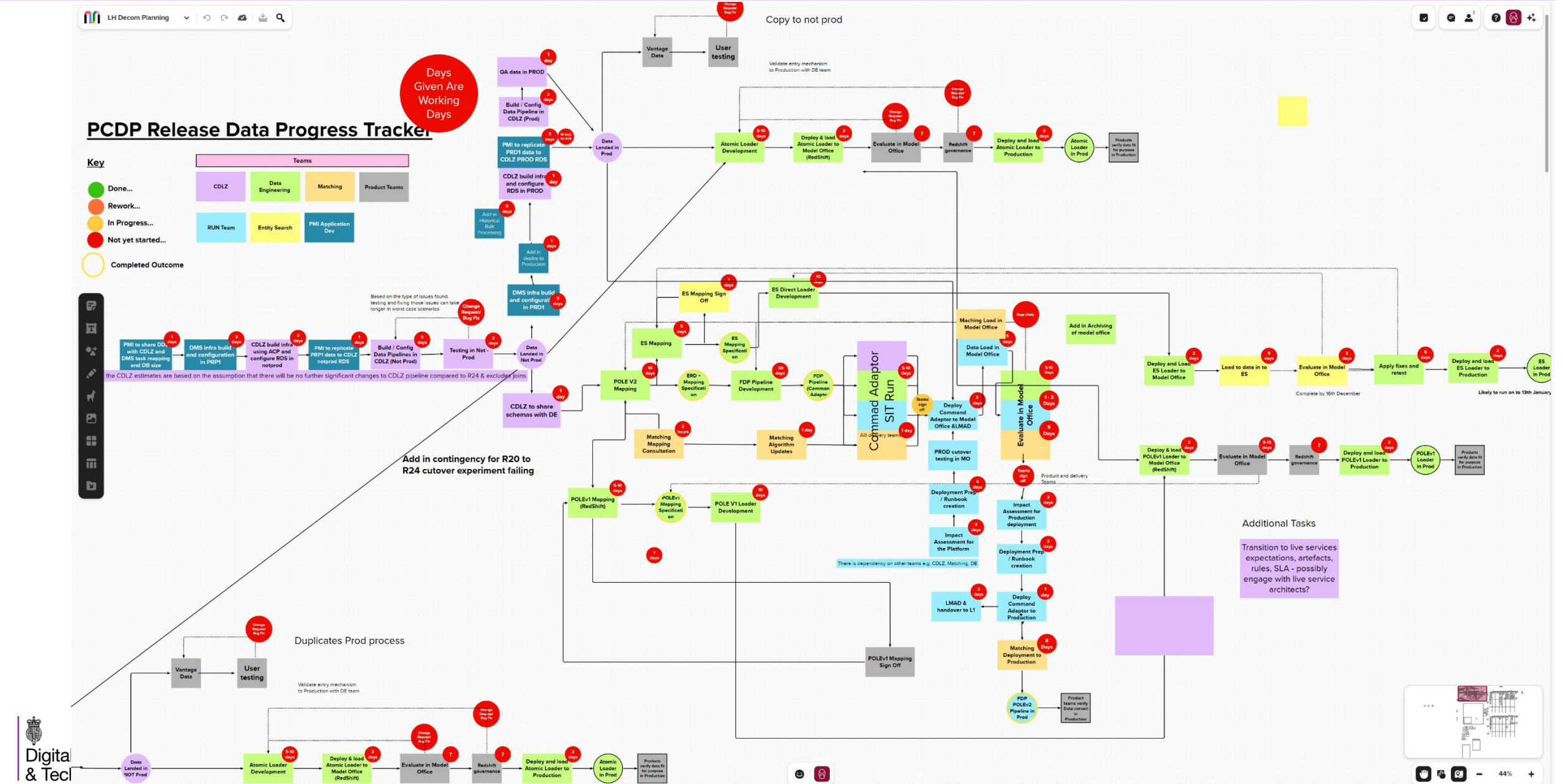
- **Reduce** (significantly) the time (and cost) to make new data available to our customers

- **Refine** the quality of the data to make it more useful

- **Rationalise** the complexity of our current software environment

- **Re-use** as much as possible from the market and existing code base

- **Revolutionise** where appropriate via the increasing use of emerging technologies such as SRE, AI and Machine Learning; and

- **Relegate**, where able, control of the data pipeline and analysis to end customers i.e. Empower them to do more themselves

The purpose of this procurement is to select a prime and supply chain to help DSA deliver against this vision (the 6Rs).

Digital, Data
& Technology

The Scope of the Procurement

DSA provides secure and scalable, enterprise-grade data capabilities, products and services for customers across HO

We are also delivering for, and supporting, a range of BUSINESS CHANGE INITIATIVES

DATA PRODUCT GROUPS

Search	Enrich	Triage	Business Rules	Insight	Host	Match	Reporting and MI	Ingest

ENTITY SEARCH

Search	Enrich	Triage	Business Rules		Host	Match	Reporting and MI	Ingest
118% increase in registered users (10K total)	**+9** additional data sets integrated (36 total)	**High** user satisfaction (Avr. 4.3 / 5)	**+17%** increase in transactions per year (7.4m total)		**6B** Number of Entities Matched	**>2M** Records washed per day	**7M** Average number of amendments per day	**IBM BIG MATCH** **Largest** public sector user in the world

CASEWORK TRIAGE

				Network Analytics				
4.6k / mth family and human rights cases scored	**1.1k / mth** marriages assessed for sham "flags"	**170k / day** IE Reporting & Returns cases scored/ re-scored			Supervised Machine Learning	Features	Text Analytics	Matching Performance
					Unsupervised Machine Learning	Smart Targeting	Graph	Exploit and Visualise

OPERATIONAL DATA COMPLIANCE

Department for Work & Pensions · HM Revenue & Customs · Driver & Vehicle Licensing Agency · Department for Education · Home Office · sia · HM Prison & Probation Service · NCA National Crime Agency · OISC · NPCC · Cabinet Office

10 Umbrella Data Sharing Agreements

605 Process Data Sharing Agreements	**72** DSA DPIAs to cover our activities	**40 CE** Data Protection Practitioners	**7** Staff in Operational Data Compliance	**1** Central Register of Data Sharing Agreements	**1** ICO Audit completed Follow up work undertaken

Business Change Initiatives

CERBERUS Real-time, multi-modal risking for borders

THREAT IDENTIFICATION Threat Identification & Enrichment for Homeland Security and CT Applications

BICS MI / VANTAGE Supporting IPT and FBIS Adapting MI to receive PCDP data from Atlas

RAIL & MARITIME Enabling new modes for passenger data

PRODUCT FEEDS Updating all DSA products as source data migrates to PCDP

CONTAIN EXIT Rehosting from ATOS to HO estate (DC & AWS)

And we collaborate with several OTHER GOVERNMENT DEPARTMENTS & AGENCIES

NHS ENGLAND on the application of the Health Surcharge

DVLA to ensure compliance for over-stayers

DWP To manage benefits claims and for automatic inclusion of NINo on BRPs

HMRC to manage tax credit eligibility against "status"

Digital, Data & Technology

Data Services & Analytics – Turning the Data We Have into the Information We Need

High Level Scope

A future looking "Data Contract" (see SFIA) :
- Provides **Managed Data Services** (mainly D&A roles [~60%] but supported by non-data professions for project purposes); and
- **Resource Augmentation** of D&A roles (refer to the Government DDaT Profession roles).

Aim to enrichen D&A Data Profession whilst allowing us to have the benefit of data focussed multi-functional Outcome based Managed Services where possible.
Note it will not be permitted to bring in non-Data roles on a resource augmentation basis (the remit of PSR and other central contracts)

Digital, Data & Technology

SFIA View: Data and analytics

Data and analytics (D & A)

Data management DATM
Developing and implementing plans, policies, and practices that control, protect and optimise the value of data assets.

Data modelling and design DTAN
Developing models and diagrams to represent and communicate data requirements and data assets.

Database design DBDS
Specifying, designing and maintaining mechanisms for storing and accessing data.

Data engineering DENG
Designing, building, operationalising, securing and monitoring data pipelines and data stores.

Database administration DBAD
Installing, configuring, monitoring, maintaining and improving the performance of databases and data stores.

Data science DATS
Applying mathematics, statistics, data mining and predictive modelling techniques to gain insights, predict behaviours and generate value from data.

Machine learning MLNG & Artificial Intelligence (AI)
Developing systems that learn through experience and by the use of data.

Business intelligence BINT
Developing, producing and delivering regular and one-off management information to provide insights and aid decision-making.

Data visualisation VISL
Facilitating understanding of data by displaying concepts, ideas, and facts using graphical representations.

Government DDaT Core "Data" (and extended Team) Roles

Family No	Family	Role No	Role	Family No	Family	Role No	Role
1	Architecture roles	1	Business architect	4	Product and delivery roles	1	Business analyst
1	Architecture roles	2	Data architect	4	Product and delivery roles	2	Delivery manager
1	Architecture roles	3	Enterprise architect	4	Product and delivery roles	3	Digital portfolio manager
1	Architecture roles	4	Network architect	4	Product and delivery roles	4	Product manager (data products)
1	Architecture roles	5	Security architect	4	Product and delivery roles	5	Programme delivery manager
1	Architecture roles	6	Solution architect	4	Product and delivery roles	6	Service owner (data services)
1	Architecture roles	7	Technical architect	5	Quality assurance testing (QAT) roles	1	Quality assurance testing (QAT) analyst
2	Data roles	1	Data analyst	5	Quality assurance testing (QAT) roles	2	Test engineer
2	Data roles	2	Data engineer	5	Quality assurance testing (QAT) roles	3	Test manager
2	Data roles	3	Data ethicist	6	Software development roles	1	Development operations (DevOps) engineer
2	Data roles	4	Data governance manager	6	Software development roles	2	Frontend developer
2	Data roles	5	Data scientist	6	Software development roles	3	Software developer
2	Data roles	6	Performance analyst	7	User-centred design roles	1	Accessibility specialist
3	IT operations roles	1	Application operations engineer	7	User-centred design roles	2	Content designer
3	IT operations roles	2	Business relationship manager	7	User-centred design roles	3	Content strategist
3	IT operations roles	3	Change and release manager	7	User-centred design roles	4	Graphic designer
3	IT operations roles	4	Command and control centre manager	7	User-centred design roles	5	Interaction designer
3	IT operations roles	5	End user computing engineer	7	User-centred design roles	6	Service designer
3	IT operations roles	6	IT service manager	7	User-centred design roles	7	Technical writer
3	IT operations roles	7	Incident manager	7	User-centred design roles	8	User researcher
3	IT operations roles	8	Infrastructure engineer	8	Cyber Security	1	Monitoring Management
3	IT operations roles	9	Infrastructure operations engineer	8	Cyber Security	2	Response Management
3	IT operations roles	10	Problem manager	8	Cyber Security	3	Risk Management
3	IT operations roles	11	Service desk manager	8	Cyber Security	4	Vulnerability Management
3	IT operations roles	12	Service transition manager				
3	IT operations roles	20	Data operations engineer				

Digital, Data & Technology

- **Core "Data" Roles**

- **Government DDaT Roles** (Nov 23)
- **Additional SFIA 8 Data Role**
- **HO DDaT Cyber Security Roles**

Government DDaT "Data" Skills

Govt DDaT Profession Skills

- Analysis and insight
- Analysis and synthesis (data analyst)
- Analysis and synthesis (data ethics)
- Communicating data
- Communication (data ethics)
- Data analysis and synthesis
- Data development process
- Data engineering and manipulation (DENG)
- Data governance
- Data governance (data architect)
- Data innovation
- Data integration design
- Data life cycle
- Data literacy improvement
- Data management (DATM)
- Data maturity models
- Data modelling (DTAN)
- Data modelling, cleansing and enrichment
- Data quality assurance, validation and linkage
- Data regulation and ethics
- Data science innovation (DATS)
- Data standards
- Data standards (data architect)
- Data visualisation (VISL)
- Developing data science capability
- Ethics and privacy (data science)
- Government Digital and Data perspective
- Metadata management
- Problem resolution (data)
- Product ownership (data ethics)
- Programming and build (data engineering)
- Programming and build (data science)
- Statistical methods and data analysis
- Turning business problems into data design
- Verification and validation of data and analysis

Additional SFIA 8 Skills & Specialisms

SFIA 8 Skills
- Business Intelligence (BINT)
- Configuration Management (CFMG)
- Database administration (DBAD)
- Database Design (DBDS)
- Machine learning (MKNG)
- Storage management (STMG)

Specialisms
- Artifical Intelligence
- Graph analysis
- Pattern matching

Skill level	What the level means
Awareness	You can: • describe the fundamentals of the skill • demonstrate basic knowledge of some of the skill's tools and techniques
Working	You can: • apply the skill with some support • adopt the most appropriate tools and techniques
Practitioner	You can: • apply the skill without support • determine and use the most appropriate tools and techniques • share knowledge and experience of the skill
Expert	You can: • lead and guide a team or organisation in the skill's best practice • teach the skill's advanced tools and techniques

- The Government have created an evolution of SFIA8 skills for their DDaT professional framework
- Each skill has 4 level Awareness, Working, Practitioner and Expert
- Each role typically has 4 – 5 levels mapped to civil servant grades
- Within the Data space there are a handful of SFIA 8 skills included e.g. Machine Learning
- There are a handful of specialisms important to DSA

Data analyst	Principal	Principal Data analyst	G6	5
Data analyst	Senior	Senior Data analyst	G7	4
Data analyst		Data analyst	SEO	3
Data analyst	Associate	Associate Data analyst	HEO	2

Digital, Data & Technology

DSA's vision is "to be recognised as the leading provider of data insight services in Government".

This requires DSA to:

- Consistently, effectively and efficiently deliver **high-quality data** services that cater for unique **user needs**.
- Offer innovative solutions and **pioneering** new approaches to data analysis.
- Build a market leading **reputation** by earning the trust and confidence of government agencies.

The rich picture (right) illustrates the data flow from ingress to dissemination, guided by the design principles.

Digital, Data & Technology
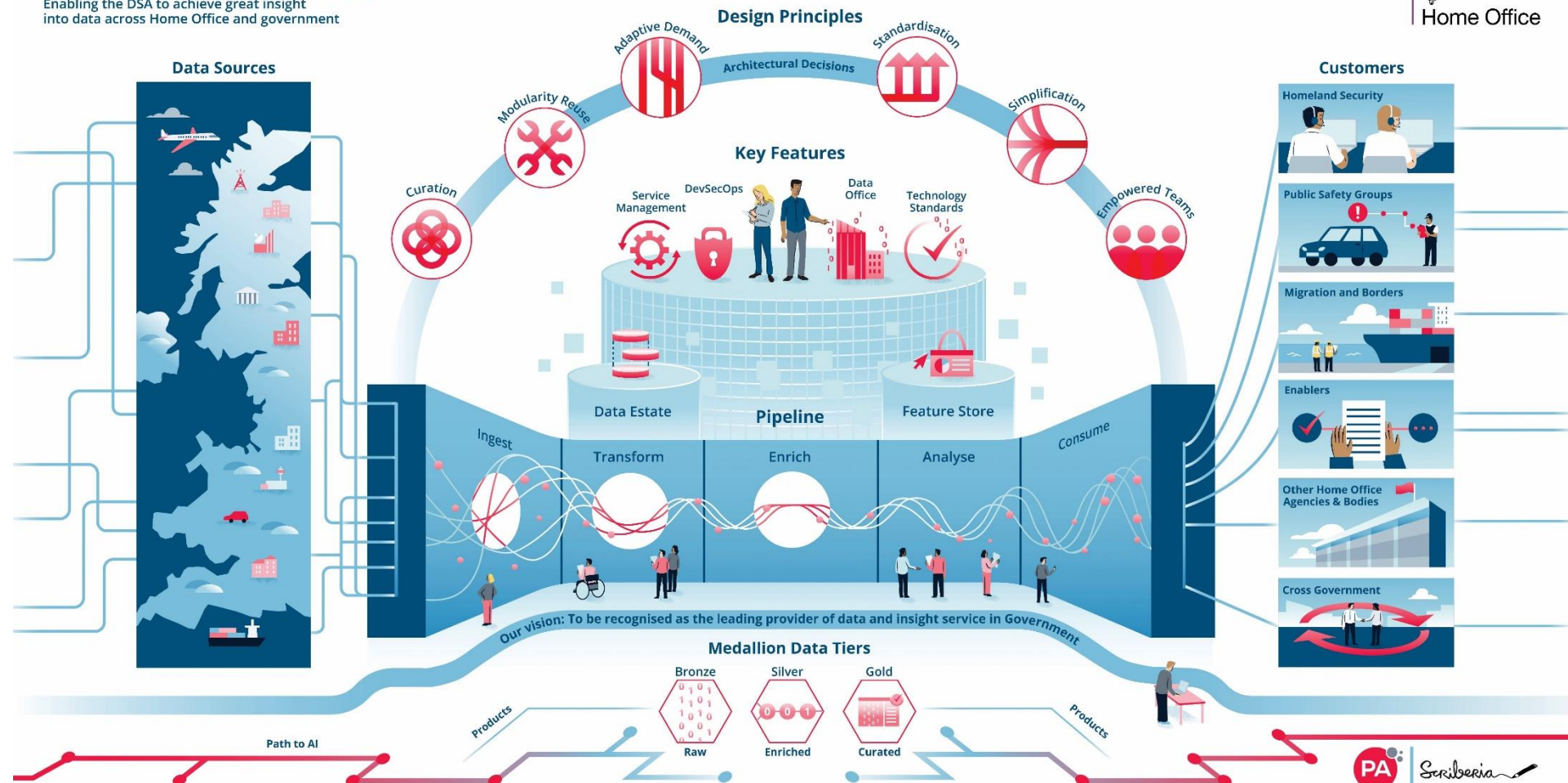
Some Key Specialisms in the Data Pipeline

Collection	Ingestion	Transformation	Big/Data/ Storage	Enrichment	Analysis	Consumption
Multiple Structured Source Types Stream data Unstructured data Validation Multiple data originators	Source metadata Raw data capture Landing data Streaming data Data Validation Simple Cleansing Mechanisms : XML, JDBC, CSV SFTP, S3, JSON, Kafka, Zip, Postgres, Email	Cleansing & Standardisation Mapping (POLE) *Machine Learning (future)* • Metadata extraction • Data quality determination • Data archival rules • Data formatting	No-SQL (Graph, eg Neo4j) SQL (Oracle, Postgres, etc) AWS S3, Athena, Redshift, Hadoop Data Lakes Apache Spark MongoDB • AWS • Azure	Data Quality Enhancements Matching Entity Resolution • IBM Big Match, • De-Duplication	Machine Learning Large Language Models Rules based risk assessments Feature engineering • Python • Java	MS PowerBI Tableau API access CSV, spreadsheet graphical output, textual output

Terraform, Kafka, Apache Flink
FinOps

• DSA require a prime and supply chain with expertise and experience in all of these areas
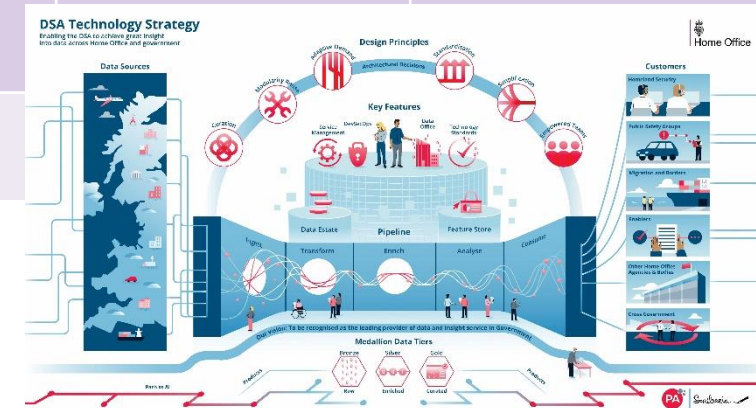
DSA is in the process of rationalising its approach

Investigate
Providing data to enable investigation and insight

Differentiate
Supporting casework decision-making

Inform policy
Creating visualisations, MI, policy insights

Platforms
Providing access to platforms, tools and data

Matching
- Up-cycle
- Temporal
- Wash
- Ext datasets

Match	Wash	Query
Data Analysis	Feature Store	Reference data
Publish	Data Integration	Data sharing

Mature service

To be service

Digital, Data & Technology

Some examples of products in DSA - risking analytics, reporting & triage

Cerberus	PRAU	MIDAS	TRAM
• Transform security at the border by utilising data, analysis, and technology to create a holistic, cross-modal, threat agnostic targeting capability. • Build on Home Office Intelligence targeting capability to concurrently analyse diverse datasets in real time, addressing multi-modal threats (e.g Organised Crime Groups) • Combining multiple datasets to identify Serious Organised Crime (SOC) and Counter Terrorism (CT) activity. • Transform data and match to provide network visualisation, applying rules allowing Intelligence Officers to risk assess movements before issuing targets to Front Line Officers for interdiction 24x7.	• Translate user needs into detailed requirements • Data visualisation (primarily in MS Power BI) • Data Engineering tasks to land, ingest and curate data (including understanding of common data models / upstream system data) • Pipeline (performance) and platform (cost) optimisation • Delivery oversight of multi-disciplinary 'POD' teams under an AGILE framework • Design and execute test plans (including reconciliation across datasets and releases) • Governance framework coordination and management	Provides critical data services: • Data Sharing • Search & Explore • Status analysis • Analysis & reporting • Support operational data processing • Customers from across Home Office and Other Government Depts • Rationalise multiple data pipelines - Transform from a legacy Oracle platform to DSA pipeline and evolve to cloud native technologies • Adopt a component-based design which maximises the re-use of datasets • Provide rapid response to PQs, FOIs and for major critical events	• Translate user needs into detailed requirements • Ad hoc data exploration in a wide variety of data serialisation and storage formats, from across the business • Designing, coding, testing, correcting and documenting moderate to complex programmes and scripts • Manipulating and linking different data sets • Performing routine statistical analysis and ad-hoc queries including report production. • Analytical techniques (data mining, time series, forecasting and modelling) to surface insights and trends. • Expanding and optimising the use of cloud technologies • Design and execute test plans, carry out exploratory testing.

What is Important to DSA

Current Evaluation Criteria (DRAFT)

Technical Merit: 55%

- DSAs 5 year Vision - Case Study 10%
- Pipeline optimisation SoW -10%
- Digital definition (discovery etc) SoW – 5%
- Management Information – 5%
- Innovation (AI, Machine learning etc) – 5%
- Continuous transition and knowledge transfer – 5%
- Mechanism to deal with supplied resource – Adherence to government DDat roles and levels (i.e. No level creep to keep with rates) - 10%
- Supply chain – 5%

Cultural Fit: 5%

- Agile at scale – Ways of working, metrics, how work with sub-contractors, incumbents – 5%

Social Value: 10%

- Tackling Economic inequality: Create New business, new jobs and new skills– 5%
  MAC 2.2 – Creating Training and Employment Opportunities
  MAC 2.3 – Support Educational attainment relevant to the contract, including training schemes
- Tackling Economic inequality – Increase Supply Chain Resilience 5%
  MAC 3.1 - Diverse supply chain
  MAC 3.4 - Demonstrate collaboration through the supply chain
  MAC 3.5 - Demonstrate action to identify and manage Cyber Security threats

Price – 30%

- Rates – 20% (Suppliers will be encouraged to adhere to as far as possible the Optimus rate card)* Quality of staff is more important than rate adherence.
- Qualitative: Skin in the game -10%

Digital, Data
& Technology

Evaluation of Sample SoWs: **Early Thoughts**

	SoW01 – Digital Definition (5%)	**SoW02 – Pipeline Optimisation (10%)**
Scope	To perform the necessary discovery, "alpha" clarifications and develop the technical inputs for the business case and subsequent SoW (SoW02 – Pipeline Optimisation)	Based on the output from SoW01 (assumed to have been done for the purposes of the competition), to conduct a time-boxed (over 6 months) phased optimisation of the DSA data pipeline. This will focus on "quick wins" identified in the discovery (for the competition based on desktop analysis of materials provided in the ITT pack)
Must Haves	• Description of the approach to be taken • Description of inputs / support needed from DSA • Sprint based plan on page illustrating timescales • Resource profile for each phase of the work • Key assumptions	• Based on provided documentation, reflection of the as-is DSA pipeline within the SoW (the "Background" in the bidders words) • Approach (and rationale for selection of "quick wins") • Milestones backed up by an appropriate "product" (story) level backlog • Otherwise as described for SoW01
Evaluation Criteria	• Demonstrated adherence to the applicable DSA Processes and Standards sections • Demonstrated understanding of the DSA "front door" process (as provided) • Clarity of the approach • Clarity of thinking about what is required from DSA • Level of recognition of working within the public sector • Appropriateness of the proposed resource profile	• Quality of insight into the DSA pipeline (as described in supplied documentation) • Demonstrated accommodation of DSA Processes and Standards • Quality of identified "Quick Wins" (evidence of level of thinking and imagination applied to identify them versus the solution itself) • Quality of the associated initial backlog • Evidence and recognition of working alongside incumbents • Quality of thinking on the planning • Appropriateness of the proposed resource profile

Note: Incumbents will be required to sign an appropriate probity agreement. All responses will be required to be traceable back to supplied documentation.

Digital, Data
& Technology

Evaluation of the Provided Case Study Material: Early thoughts

	Case Study Material (10%)
Scope	The case study material should reflect the scope and scale of the competition. It doesn't have to be a single "case". Provided it is clear how the individual "cases" link to the scope this will be OK. However, the cases must exclude DSA and have been active in the last 3 years (we are looking for new thinking)
Must Haves	• Refer to the Case Study Response Guidance (to be issued in advance) • The case study material must include evidence of their impact • The material must clearly articulate how the experience from it will be applied to the new contract • It must evidence working within a supply chain of suppliers • Challenges / lessons learnt should also be included
Evaluation Criteria	• Clarity of linkage to the scope and scale of competition • Strength of evidence provided (and clarity of responsibility of scope) • Quality of involvement of the supply chain in the material • Clarity of how the knowledge gained from the case study will be brought to the benefit of DSA • Clarity of the benefits of applying case study learning to DSA

Digital, Data
& Technology
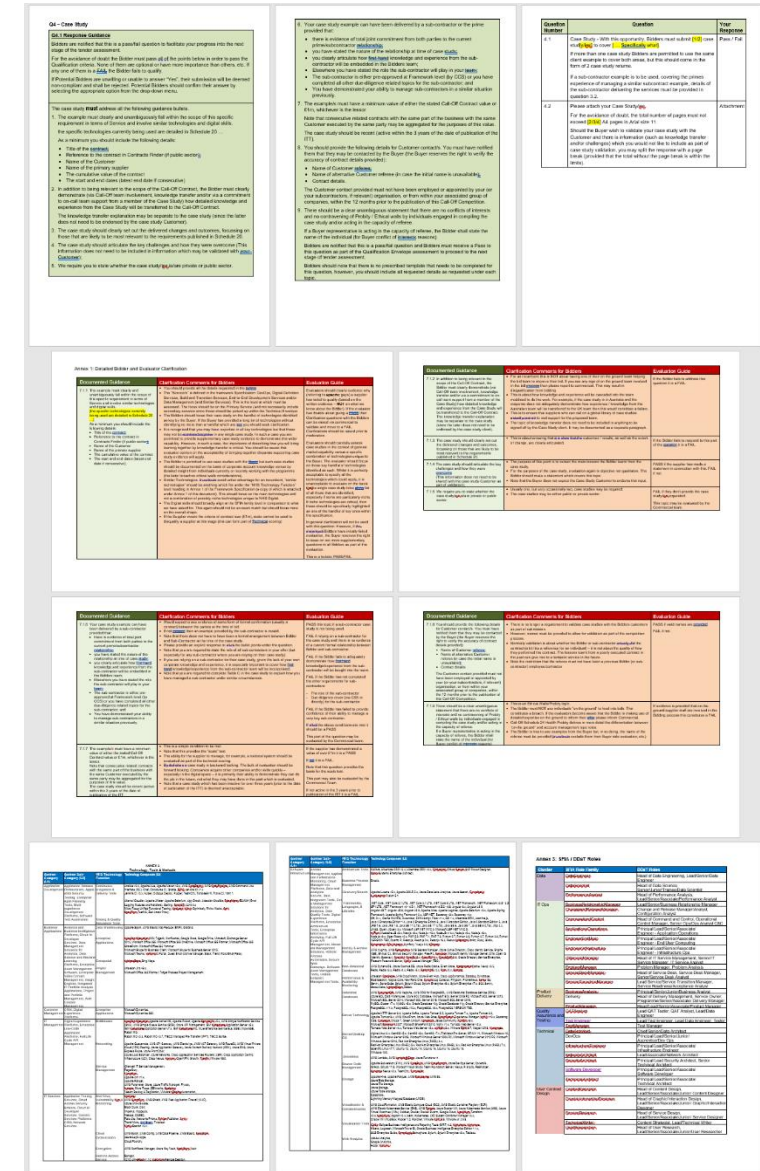
Management Information (Metrics): Early thoughts

Agile Metrics

Ref	Measure	Brief Description
A01	Velocity	Actual Story Points versus Forecast Story Points
A01a	Team Capacity	In Story Points
A01b	Forecast Story Points	The Story Points forecast to be delivered within the Sprint Planning event. Note sizing related to non-Story issue points to be excluded (so we have a proportion of Story versus
A01c	Actual Story Points	The number of Story Points actually delivered (must be in full, a Story which is only partially delivered – even if 99% complete – is not delivered)
A01d	Percentage Story Points	The percentage of Team Capacity allocated to Stories, versus other Issue Types. This percentage is anticipated to increase over time.
A02	Burn-Up Charts	Also based on Forecast and Actual Story Points (a different view)
A02a	"Task" Points	Anything which is not related to a planned Story. Proposed Issue Types include: Story, Bug, Problem, Request and Dependency. Any sub-activities linked to these issue types should ideally be Sub-tasks (not Issue Type tasks). Ideally forecast, but the main interest is on actual.
A03	Lead Time [DORA]	The amount of time between work actually starting on an Issue (or the first Story in a Feature) and when, in theory, the Issue is ready to be started (Declared versus Accepted as Ready)
A04	Cycle Time	The time between when Work started on the issue (usually the start of the Sprint in which it is planned to be done) and when it is believed to have been completed (Bugs will identify poor quality work).
A04a	Control Chart	A visualisation of Cycle time
A04b	Cumulative Flow Diagram	Another visualisation of Cycle time
A05	Defect Escape Rate	The number of "Bugs" found after development work has completed (ready for release into Model Office or Live) versus the total number of "bugs" in total. Note Bugs are of sub-type Production (Live) and Pre-Production (Model Office).

D. DevOps Metrics

Ref	Measure	Brief Description
A03.	Lead Time [DORA]	As defined under Agile Metrics
D01.	Deployment Frequency [DORA]	How Many successful Deployments released into Model Office and Production (measured separately) over a rolling 6 sprint period (12 weeks)
D02.	Change Failure Rate [DORA]	The percentage of deployments causing failure (Incidents) in both pre-production and production environments

M. ITIL ITSM (CIT) Metrics

Ref	Measure	Brief Description
M01	Mean Time to Recover (MTTR)	This is not a DORA metric but, in the context of a Product Centric DevOps team it makes sense for accountability for this metric to sit within the Product ... ... ing it takes to recover a service once i... ... Production and Production envi...
M01a	Availability	The percentage of time (in both ... production) the system is availa... ... of MTTR (above) PLUS any **planned downtime** di... ... ny total time. Useful to capture if in Business Hours (08:3... ...7:30) or Outside Hours.
M02	Reliability	The frequency of incidents (both production and pre-production) classified according to the severity of incidents... ...1-P4)
M03	System Performance & Resource Utilisation	Now captured as a feed into Total Cost of Ownership and as a means of ensuring incidents do not arise as a consequence of insufficient capacity
M04.	Customer Ticket Volume (Incident Management)	A set of ITIL ITSM related Metrics which can be extracted by Issue Type (Story, Bug, Problem, Request, Dependency). Note that levels below Issue (sub-tasks) and above an Issue (Epics/Features) should not be counted at this level
M04a	Problem Management (plus Incident [Bug], Request and Dependency Issues)	A detail of the above, the number of open, new and closed Issues by type (in this case Problem, but also for Issue types Request and Dependency – with incidents captured above)
M05	Cost Per Ticket	A derived measured combining D04 above and Total Cost of Ownership
P01	Data Cleanliness and Validity	Duplicate or ambiguous records, orphaned records, incomplete or missing records, text encoding errors, inconsistent formats, mislabelled or unlabelled data
P02	Volumetrics	number of sources, number of feeds, number of records, etc.
P03	Cycle time per feed per stage	Including success rates
M03	Resource Utilisation	See ITIL ITSM Metrics

Data Pipeline Metrics will be picked up as Observability related metrics under a separate heading of Data Reliability (linked to the existing work on SRE). The impact of these metrics gets reflected in other metrics on Cycle time, Defect Escape Rate, Total Cost of Ownership, etc.

(P. Data Pipeline)

SME and Resource Metrics to be added

Considering Carbon Cost

C. Customer / Programme / Project Metrics

Ref	Measure	Brief Description
C01	(Labour) Cost Metrics	A subset of Total Cost of Ownership (which includes Hosting and Software Costs), this measures costs against budget (since it is this variance that matters to the End Customer. Costs include Baseline Budget (C01A), Baseline Contingency (C01B), Current Budget (C01C), Forecast Cost (C01D) and Actual Cost (C01E) on a monthly trend basis
C02	Time Metrics	Similar to costs above (Baseline Target, Baseline Latest, Planned Target, Forecast and Actual) with variance of Forecast/Actual versus Planned being the key performance indicator
A01	Quality – Velocity	See Agile metrics above. Effectively the actual number of Stories accepted as done versus the total number of Stories forecasted to be done at a point in time (from a Customer point of view other Issue types are internal to DSA).
C03	Dependency Metrics	Dependencies are included here on the basis that unresolved Dependencies are usually the biggest source of Risk in terms of delivery. These are broken down into dependencies at different stages in their life-cycle.

T. Total Cost of Ownership

Ref	Measure	Brief Description
C01	Labour Cost Metrics	See above but this is used in the context of Total Cost of Ownership versus variance against Budget
T01	Hosting Cost Metrics	Nowadays usually based on Cloud Hosting Calculators (e.g. the AWS Calculator) this will require inputs such as number of processors of different types, memory, storage of different types etc (inputs captured under M03 Resource Utilisation in the previous version of this document)
T02	Software Cost Metrics	Usually more difficult to allocate to a particular service, but the intent is to allow for TCO optimisation via balancing software licencing costs, hosting costs and labour costs.

The elements of the service will be measured.

Targets will be agreed and variance against target captured

Innovation (Early Thoughts)

Given the rapidly accelerating pace of innovation in areas such as Machine Learning, Artificial Intelligence, emerging Data Pipeline capabilities, etc and the (up to) five year duration of the contract the Suppliers response should demonstrate ….

Must Haves	Should Haves (For MEAT Evaluation)
• It (prime & supply chain) has a good understanding of emerging technologies and what the supply side of the market is offering • It has the expertise to maintain that knowledge and cascade that into decisions related to the service • It has access to, and can share, what the broader demand side market and other customers are actually doing with these technologies • It can demonstrate it has the pragmatic wherewithal to recommend, and subsequently support deployment, of these technologies within its services	• Established relationships with key players in the market place • Can demonstrate experience of applying these technologies within the public sector • Has wider industry recognised experts in the field • Has credible proposals in the specific areas within DSA (based on provided documentation) which could benefit from these technologies and how • Can demonstrate an understanding of the benefits of these technologies whilst recognising concerns related to their application

Note:

Digital, Data
& Technology

Continuous Transition and Knowledge Transfer (Early Thoughts)

DSA's transition policy, in order to reduce dependency and ensure continuity, is that it should be possible to transition in or out at any time – not just as contracts change. At the beginning there will be a gradual ramping up and phasing in of the new service, during the contract we may choose to transition parts of the service to in-house teams (e.g. our Shared Application Service) and, at the end, to others

Must Haves	Should Haves (For MEAT Evaluation)
• The Supplier shall demonstrate, in both theory and practice, how it will limit and address the risks of single points of failure • The Supplier shall have clear mechanisms to ensure its professional staff are fully aware of the Gov level and above standards (see Processes and Standards Manual) prior to onboarding and how, once they are in place, they will cascade DSA specific standards to colleagues as part of mobilisation. • The Supplier shall ensure that, as far as is practical, it captures documentation to allow others to pick up work in the event of illness, absence and/or transfer of responsibility • Recognising gradual transition, an appropriate Transition Plan • Recognising continuous exit, an appropriate Exit Plan	• The processes it has/will put in place to enable succession (inside and outside of its own organisation) • How the Supplier ensures it's professional staff are continuously familiar with requisite standards and industry good practices and how this is assured across the supply chain (e.g. via appropriate ongoing training) • The quality and clarity of the proposed onboarding process • The quality of the assurance mechanisms the Supplier has/will put in place to ensure it's work is transparently documented at all times • The quality of thought put into its staff rotation policies (minimising single points of failure) and how these will be cascaded across the supply chain. • The quality of its draft (Continuous) Exit Planning. • How the Supplier proposes, over the first few months, to acquire knowledge from incumbents

Digital, Data
& Technology

Quality and Availability of DDaT Roles: Individuals and in Teams (draft)

DSA requires that the Supplier (including Supply Chain) is able to mobilise suitably skilled professionals within reasonable timescales. This shall primarily reference the Government Digital and Data Profession Capability Framework, supplemented in small parts by the SFIA8 Skills framework and the Home Office DDaT framework (the latter mainly around Cyber Security)

Must Haves	Should Haves (For MEAT Evaluation)
• The Supplier (and Supply chain) must ensure it follows the Governments Digital and Data Profession Capability Framework with regard to roles • Recognising it can take up to 3 months to get workers through security clearance and equipment provisioning the Supplier shall commit to appropriate Service Level Agreements with respect to providing resources • The Supplier shall ensure that it can provide workers at the civil servant grade (SFIA level) stated for the rate quoted (rates shall not be used as a reason for not filling roles, it will not be acceptable to inflate grades/levels as a means of increasing rates) • Even with outcome based activities, prices shall be backed up by auditable estimates based on quoted roles and rates. • The Supplier shall commit to capturing and providing "actuals" for the purposes of charging if time & materials, or improving future estimates if outcome based	• The quality of processes put in place to ensure that the professional framework is followed across the supply chain on an ongoing basis. • How the Supplier proposes to deal with situations where the Buyer challenges the quality of the provided workers • Recognising that a requests for an individual, a small team or for a larger team provide different challenges, the SLAs the Supplier is prepared to commit to with regard to ability to mobilise • Mechanisms the Supplier proposes for dealing with "urgent" resource / team requests • How the Supplier proposes to ensure it is able to continuously provide suitably qualified individuals at quoted rates • The quality of proposed mechanism to deal with "rare" or "abundant" skills (which may, demonstrably, require a variation to the generic rate card) • Level of commitment to the principles of transparency • Attractiveness of proposals with regard to dealing with demobilisation

Digital, Data
& Technology

Quality and Depth of the Supply Chain (draft)

Whilst DSA wish to have the accountability related to a single prime, DSA also requires the involvement of specialist SMEs throughout the length of the contract. This is to provide niche expertise, quality of resource and flexibility. DSA is committed to support the Governments targets for SME involvement

Must Haves	Should Haves (For MEAT Evaluation)
• Primes are required to include SMEs as part of their offer and will be evaluated on the strength of their supply chain • Suppliers are required to provide a brief profile of the SMEs they include in their offer for this purpose • Whilst new SME additions will be possible during the course of the contract, only those where there is evidence of commitment by the SME should be included in the offer • Post award, if an SME is to become Key (>= 10% of burn rate) DSA will require to give approval. Below this threshold, or if included as part of the initial offer, no approval is required • However, Primes have an obligation to ensure that SMEs pass government due diligence standards (criminal records, etc) • Contracts which SMEs are required to sign up to shall be visible to DSA as a means of ensuring relevant terms are cascaded. • Even if responsibilities are held by SMEs, DSA requires that the Prime be accountable for performance and commercial matters	• How well the supply chain maps into the DSA scope, the value added by each of the SMEs, and how this integrates into the total scope for which the Prime is accountable • Description and evidence of how SMEs will be integrated and managed and ongoing SME participation assured • Approach to onboarding SMEs and how the quality of SME workers is assured. The Prime shall be accountable for supply chain quality • How the Prime will integrate SME performance and delivery into its overall performance management and reporting framework

Note:

Digital, Data
& Technology

Culture: Agile at Scale (Early Thoughts)

Partially at the strategic level, with priorities likely to be changing over coming months, and partially at the operational level, with multiple dependencies both along the data pipelines and across to other parts of DDaT (e.g. Infrastructure / cloud provision) the service will require agility. This is within a business context driven by more waterfall budgeting and timescale constraints involving numerous players

Must Haves	Should Haves (For MEAT Evaluation)
• Demonstrable experience of working in large scale agile ways involving multiple teams across multiple organisations within a broader waterfall context • Read and constructively commented on DSA proposals regarding ways of working • A demonstrable capability of ensuring visibility and providing agile metrics at the appropriate level (above individual task management level), on an outcome basis • A robust process for managing and highlighting dependencies • Clarity on how to apply agile tooling (DSA currently use Atlassian Jira) for this purpose	• Quality of relevant experience of working in agile at scale ways and how this experience will be brought to the contract • Proposals on how and what governance will be applied to agile processes • Quality of commentary on DSAs proposals (about adding value / critiquing proposals not about necessarily agreeing to them) • Clarity on how performance and metrics across multiple teams will be aggregated to provide the basis for MI reporting • Confirmation of how critical (versus day-to-day) dependencies will be managed • Quality of recommendations regarding use of agile tooling

Note:

Digital, Data
& Technology

Metrics Aligned to a Balanced Scorecard

Total Cost of Ownership

DDaT TCO
DSA FinOps
DSA Recharging

Financial	Customer
Internal Business Processes	Learning & Growth

Total Cost of Ownership

Agile Delivery
DevOps (DORA)
CIT ITIL / ITSM
Data Pipeline

Programme / Project Management

Resourcing
Time
Quality
Dependency Mgmt

Assurance Feedback

Team Health
Knowledge Retention
Resilience
Succession Planning

The elements of the service **will be** measured.

Targets will be agreed and variance against target captured

Considering Carbon Cost

Core Principles (DRAFT)

- All metrics measured monthly

- Performance across a related set of metrics (not a single one)

- Baseline set based on a rolling quarterly average

- (Average) service should not degrade (service credits if it does)

- Targets set to improve over baseline

- Service improvement tied to Total Cost of Ownership (gainshare if reduced)

- Gainshare capped to ± 20% in-month revenue

Digital, Data & Technology

Materials to be released ahead of ITT

Supplier Feedback Welcome

DSA Processes and Standards Manual

PRJ8500	Vol. 1 (5 of 6) DSA Processes & Standards Manual
1	Introduction
2	Ways of Working
2.1	Ways of Working
2.2	Knowledge Transfer and Civil Service Skill Uplifting
2.3	Organisation and Governance
2.4	Backlog Management
2.6	Product Delivery Support (especially during Early Life)
2.7	Release Management
2.8	Continuous Improvement
3	DevOps Principles and Automation
3.1	Coding Principles
3.2	Compatibility with Service Management to DSA ITIL® 4 practices
3.3	Acceptance into Service (AIS)
4	Quality Assurance and Testing
4.1	Testing Principles
4.2	Scope of Testing
4.3	Support for Testing
4.4	Specific Testing Requirements
5	Staff Onboarding/Offboarding and Security
5.3	Security Requirements
6	Dependencies and Assumptions
7	Assurance Roles
8	Resourcing
NEW	Profession Standards
9	Buyer's Right to Accelerate, Pause or Cancel Delivery (Partially or in Total)
10	Agile Ways of Working
11	Measures, OLAs, SLAs, KPIs, etc
NEW	Technical Standards
NEW	Data Standards
NEW	Data Quality / Pipeline Standards
NEW	Cyber Security / Data Protection Standards
NEW	Development & Governance Lifecycle
NEW	Early Life Support
NEW	Contract Management
NEW	User Centred Design

The purpose of the DSA Processes and Standards Manual is to provide a high level reference for the standards, by profession, against which the service will be assured

Currently on version 2.0 the manual is being updated to version 3.0 to reflect latest developments

Suppliers will be encouraged to provide feedback.

Digital, Data & Technology

DSA Statement of Work Template

Provided for information, the Statement of Work template refers to the Processes and Standards manual (providing an opportunity to make exceptions where necessary).

Digital, Data
& Technology

DDaT Roles, Data Skills & Rates

Family No	Family	Role No	Role	Level	Full Description	Civil Service Grade	SFIA Level	HO DDaT Group	HO DDaT Target Rate	In Data Scope	Qty for Weighting Purposes	Supplier Rate	Weighted Price for Evaluation
1	Architecture roles	1	Business architect	Lead	Lead Business architect	G6	5	Architecture	£930		0	£930	£0
1	Architecture roles	1	Business architect		Business architect	G7	4	Architecture	£850		8	£850	£6,800
1	Architecture roles	1	Business architect	Associate	Associate Business architect	SEO	3	Architecture	£585		7	£585	£4,095
1	Architecture roles	1	Business architect	Trainee	Trainee Business architect	HEO	2	Architecture	£350		5	£350	£1,750
1	Architecture roles	2	Data architect	Chief	Chief Data architect	G6	5	Architecture	£930	Y	3	£930	£2,790
1	Architecture roles	2	Data architect	Senior	Senior Data architect	G7	4	Architecture	£850	Y	5	£850	£4,250
1	Architecture roles	2	Data architect		Data architect	SEO	3	Architecture	£585	Y	7	£585	£4,095
1	Architecture roles	3	Enterprise architect	Principal	Principal Enterprise architect	G6	5	Architecture	£930		6	£930	£5,580
1	Architecture roles	3	Enterprise architect	Lead	Lead Enterprise architect	G7	4	Architecture	£850		6	£850	£5,100
1	Architecture roles	3	Enterprise architect	Senior	Senior Enterprise architect	SEO	3	Architecture	£585		7	£585	£4,095
1	Architecture roles	3	Enterprise architect		Enterprise architect	HEO	2	Architecture	£350		3	£350	£1,050
1	Architecture roles	4	Network architect	Lead	Lead Network architect	G7	4	Architecture	£850		4	£850	£3,400
1	Architecture roles	4	Network architect		Network architect	SEO	3	Architecture	£585		2	£585	£1,170
1	Architecture roles	4	Network architect	Associate	Associate Network architect	HEO	2	Architecture	£350		6	£350	£2,100
1	Architecture roles	5	Security architect	Principal	Principal Security architect	G6	5	Architecture	£930		5	£930	£4,650
1	Architecture roles	5	Security architect	Lead	Lead Security architect	G7	4	Architecture	£850		9	£850	£7,650
1	Architecture roles	5	Security architect		Security architect	SEO	3	Architecture	£585		8	£585	£4,680
1	Architecture roles	6	Solution architect	Principal	Principal Solution architect	G6	5	Architecture	£930		1	£930	£930
1	Architecture roles	6	Solution architect	Lead	Lead Solution architect	G7	4	Architecture	£850		9	£850	£7,650
1	Architecture roles	6	Solution architect	Senior	Senior Solution architect	SEO	3	Architecture	£585		6	£585	£3,510
1	Architecture roles	6	Solution architect		Solution architect	HEO	2	Architecture	£350		7	£350	£2,450
1	Architecture roles	6	Solution architect	Associate	Associate Solution architect	EO	2	Architecture	£350		2	£350	£700
1	Architecture roles	7	Technical architect	Principal	Principal Technical architect	G6	5	Architecture	£930		2	£930	£1,860
1	Architecture roles	7	Technical architect	Lead	Lead Technical architect	G7	4	Architecture	£850		4	£850	£3,400
1	Architecture roles	7	Technical architect	Senior	Senior Technical architect	SEO	3	Architecture	£585		6	£585	£3,510
1	Architecture roles	7	Technical architect		Technical architect	HEO	2	Architecture	£350		3	£350	£1,050
1	Architecture roles	7	Technical architect	Associate	Associate Technical architect	EO	2	Architecture	£350		1	£350	£350
2	Data roles	1	Data analyst	Principal	Principal Data analyst	G6	5	Data	£880	Y	9	£880	£7,920
2	Data roles	1	Data analyst	Senior	Senior Data analyst	G7	4	Data	£635	Y	3	£635	£1,905
2	Data roles	1	Data analyst		Data analyst	SEO	3	Data	£540	Y	5	£540	£2,700
2	Data roles	1	Data analyst	Associate	Associate Data analyst	HEO	2	Data	£350	Y	7	£350	£2,450
2	Data roles	2	Data engineer	Head of	Head of Data engineering	G6	5	Data	£880	Y	6	£880	£5,280
2	Data roles	2	Data engineer	Lead	Lead Data engineer	G7	4	Data	£635	Y	3	£635	£1,905
2	Data roles	2	Data engineer	Senior	Senior Data engineer	SEO	3	Data	£540	Y	1	£540	£540
2	Data roles	2	Data engineer		Data engineer	HEO	2	Data	£350	Y	7	£350	£2,450
2	Data roles	3	Data ethicist	Head of	Head of Data ethics	G6	5	Data	£880	Y	2	£880	£1,760
2	Data roles	3	Data ethicist	Lead	Data ethics Lead	G7	4	Data	£635	Y	2	£635	£1,270

Provided to familiarise the market with the updated Gov DDaT Roles and as a means to collect updated rates for each role.

Number	Name (registered name if registered)	Office address (registered address if registered	Registration number (if applicable)	DUNS number (of head office if applicable)	VAT number	SME?	Is the Supplier registered and approved by CCS as a formal part your supply chain at the Framework level?	Role the key subcontractor will play in the delivery	Approximate Key subcontractor's % share of the total contract value	Are you relying on this key subcontractor to meet the selection criteria?	If you are you relying on this key subcontractor to meet the selection criteria have you submitted to CCS the information and declaration workbook completed by the key subcontractor or their SPD (Single Procurement Document)? (to question 1.12.3)
1											

Form to be updated, but, as noted above, if not already a sub-contractor, at time of response to the tender, there should be formal written commitment from the sub-contractor to become one under the applicable terms of the framework contract.

There is an obligation on the bidding supplier to ensure that the equivalent of the CCS Information and Declaration form (providing more detail) has also been completed.

Requested Data	Response
Number	1
Name (registered name if registered)	
Office address (registered address if registered)	
Registration number (if applicable)	
DUNS number (of head office if applicable)	
VAT number	
SME?	
Is the Supplier registered and approved by CCS as a formal part your supply chain at the Framework level?	
Role the key subcontractor will play in the delivery	
Approximate Key subcontractor's % share of the total contract value	
Are you relying on this key subcontractor to meet Must Have evaluation criteria?	
If you are you relying on this key subcontractor have you previously submitted to CCS the information and declaration workbook completed by the key subcontractor or their SPD (Single Procurement Document)?	If not, the subcontractor should complete an equivalent form

Digital, Data & Technology

Ignore the detail (an old CCS form).

However, since it is intended the case study represents a significant part of the evaluation scoring, hence releasing early.

Note: We will also release case study guidance

Details on Metrics (DRAFT)

An update to an existing document which will describe proposals on metrics in detail.

This will include linkage to the balanced scorecard, gainshare and what is needed to be captured

We are looking for feedback on all of these.

Procurement and next steps

Procurement Approach

Route to market: The route to market is expected to be a Further Competition under the Crown Commercial Services **Digital Specialists and Programmes Framework (RM6263) Lot 1 – Digital Programmes.**

Non-framework suppliers will have the opportunity to approach and team ("Buddy") up with suppliers who are currently on the framework.

Contract Type: Call-Off Contract from the CCS Digital Specialists and Programmes Framework

Contract Term: four (4) years with the option to extend by a further (1) year as allowable under the CCS Framework

Number of Suppliers to Contract with: One (1) Prime but with a Supply Chain of Suppliers under it

Indicative Value of Contract – up to a maximum of £250,000,000 (*TBC) over the maximum 5 (4+1) year term.

Location: Various – Remote Working allowable.

Evaluation Criteria: Most Economically Advantageous Tender (MEAT) basis, not lowest cost.

Digital, Data
& Technology

Procurement Approach

Phase 1 – Pre-Procurement	Phase 2 - Procurement	Phase 3 – Contract Management
Early Market Engagement – Briefing / Awareness / Q&A	Tender Issuance	Contract commencement
Buddying – HO Commercial will facilitate a "Buddying up" opportunity	Bid Evaluation – MEAT criteria as specified (SME's Evaluating relevant sections of bids). Presentations / Meetings as determined in tender.	Relationship building
Early Market Engagement Questionnaire (Supplier detail/ Response to approach/ focus on key evaluation aspects)	Bid Clarifications	On-boarding / Knowledge transfer
Phased Sharing of key Tender related documents prior to tender issuance.	Bid Moderation	Statement of Work issued as formal work commitment.
Market Engagement Session – No.2 – Feedback on Tender documents and update from HO on procurement approach / timelines)	Award / Contract Signed	Formal Contract Management – Performance reviews against KPI's / Balanced Scorecard etc

Digital, Data
& Technology

Next Steps

Supplier Questionnaire

Suppliers are requested to complete a Questionnaire in relation to the information presented today;

We want to know;

- Your views and opinions of the information shared today with specific reference to the scope and evaluation approach.

- What you perceive to be the key risks / issues / challenges that we need to address in advance of tender issuance.

- Any other information of note (e.g. Internal / External factors)

The information will be used to inform the procurement strategy and tender documents.

- Send the completed questionnaire to dsalicencescommercialteam@homeoffice.gov.uk by **Monday 15th July – 5pm**

Digital, Data
& Technology

Next Steps

"Buddying up"

The Home Office is encouraging suppliers to "buddy up" as part of this process and are offering to act as an initial conduit for this to happen. This will obviously not stop suppliers from entering their own arrangements outside of this process.

Suppliers who are interested in the possibility of "buddying up" with other suppliers are requested to provide the following information to the Home Office to allow this to happen.

Name:

Title:

Company:

Email:

Tel:

Area of expertise:

Suppliers should be aware that this information will be shared with all suppliers who have expressed an interest in "buddying" up.

Suppliers should provide their details to dsalicencescommercialteam@homeoffice.gov.uk. Closing date 25th August 2024.

Digital, Data
& Technology

Procurement Timeline – Indicative

Pre-Procurement Stage		
Activity	**Date**	**Comment**
Contracts Finder Notice Published	21st June 2024	
Early Market Engagement Event (Remote) – No.1	8th July 2024	Today's event / Buddying up opportunity
- Start issuing tender related documents to suppliers for review / comment	W/C 8th July 2024	Open until Market engagement event (No.2)
Early Market Engagement Questionnaire issued	W/C 8th July 2024	Issued to all attendees and any other suppliers that request it.
Early Market Engagement Questionnaire returned	15th July 2024 – 5 pm	Return via email to address detailed
Market Engagement Event (No.2)	W/C 12 August 2024 – TBC	Supplier feedback and HO update
"Buddying up" initiative closes	25th August 2024	
Procurement Stage		
Activity	**Date**	**Comment**
Procurement Strategy Governance	August 2024	Inc. HO / CO / Ministerial Approval
Target Further Competition date (Tender issued)	W/C 9th September 2024	
Tender return date	W/E 11th October 2024	c. 5 weeks
Evaluation Period	W/C 14th October 2024 – W/E 15th November 2024	c. 4 weeks
Award Governance	W/C 2nd December 2024 – W/E 28th February 2025	Inc. HO / CO / Ministerial Approval
Award Notification: Issue Award Notification letters and observe Standstill period (10 days)	W/C 3rd March 2025 – W/C 17th March 2025	
Complete contract drafting and sign	W/C 31st March 2025	
Contract Management		
Activity	**Date**	**Comment**
Contract Start date	W/C 31st March 2025 – 30th March 2029	4 years + 1 year extension option

* Note: All dates are subject to change

Questions and Answers

Thank-You

Digital, Data
& Technology

Useful Links

https://sfia-online.org/en/sfia-8/sfia-views/full-framework-view/development-and-implementation/data-solutions

https://ddat-capability-framework.service.gov.uk/

https://www.gov.uk/government/publications/home-office-digital-data-and-technology-strategy-2024/home-office-digital-data-and-technology-strategy-2024.

https://www.gov.uk/government/publications/data-ethics-framework

https://www.gov.uk/government/publications/procurement-policy-note-0620-taking-account-of-social-value-in-the-award-of-central-government-contracts)

Digital, Data
& Technology