The Five Safes (plus Two)

CADRE

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Partners

A/Prof Steven McEachern

Director of Australian Data Archive

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Acknowledgement of Country

CADRE

I acknowledge the Traditional Owners of the land on which this training is taking place, the land of the Yuggera, Turrbal and Jagera, and pay my respect to their Elders past, present and emerging. I also acknowledge that I join you from the land of the Ngunnawal and Ngambri people.

Schedule

Aim: For you to understand the Five Safes (+ 2) and their application

1. Getting to know you. Are you safe?
2. CADRE Project
3. Impacts on sharing data
4. Five Safes
5. Two additional safes: Organisations + Groups
6. Applying the Five Safes in CADRE
7. Applying the Five Safes at QCIF

Polling

SCAN ME

🌐 Respond at **PollEv.com/cadre**
💬 Text **CADRE** to **+61 427 541 357** once to join, then **A, B, C, or D**

Which best describes you?

HDR student	**A**
Academic	**B**
Professional	**C**
Other	**D**

Polling

SCAN ME

When poll is active, respond at **PollEv.com/cadre**

Text **CADRE** to **+61 427 541 357** once to join

My level of understanding of the Five Safes is

Boss level. I can help facilitate if you need.

I've heard of it somewhere. Refresh my memory.

Am I in the right workshop? This isn't a locksmiths convention, is it?

non-existent.

CADRE

Polling

When poll is active, respond at **PollEv.com/cadre**

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Choose which statement best reflects you for Research Data Management (RDM) training:

I have completed RDM training within the last 5 years

I have never completed RDM training

It has been more than 5 years since I last completed RDM training

Polling

CADRE

Choose which statement that best applies to you in regards to ethics:

I've completed ethics training in the last 5 years

I've never completed ethics training

It has been more than 5 years since I completed ethics training

I have submitted an ethics application before

I have never submitted an ethics application

SCAN ME

Polling

Do you have an ORCiD?

Yes

No

SCAN ME

CADRE

CADRE

| A SYSTEM TO	BY MEANS OF	IN ORDER TO
Increase the speed at which social sciences and related disciplines get access to sensitive data. Decrease the risk, time and costs associated with providing access to data (for data holders) and accessing data (for researchers)	The development of a shared and distributed sensitive data management platform using the **Five Safes** framework and common accreditation and information exchange protocols.	Enable data owners and users to address the core concerns around governance, creation, management and sharing of sensitive data for research. Share and move sensitive data safely between higher education, national research and government facilities and services.

Frameworks for data sharing

Academic:

- FAIR data

Government:

- DATA Scheme (from the DAT Act)

- Equivalent state schemes (e.g. South Australia)

- Agency-specific frameworks (e.g. ABS)
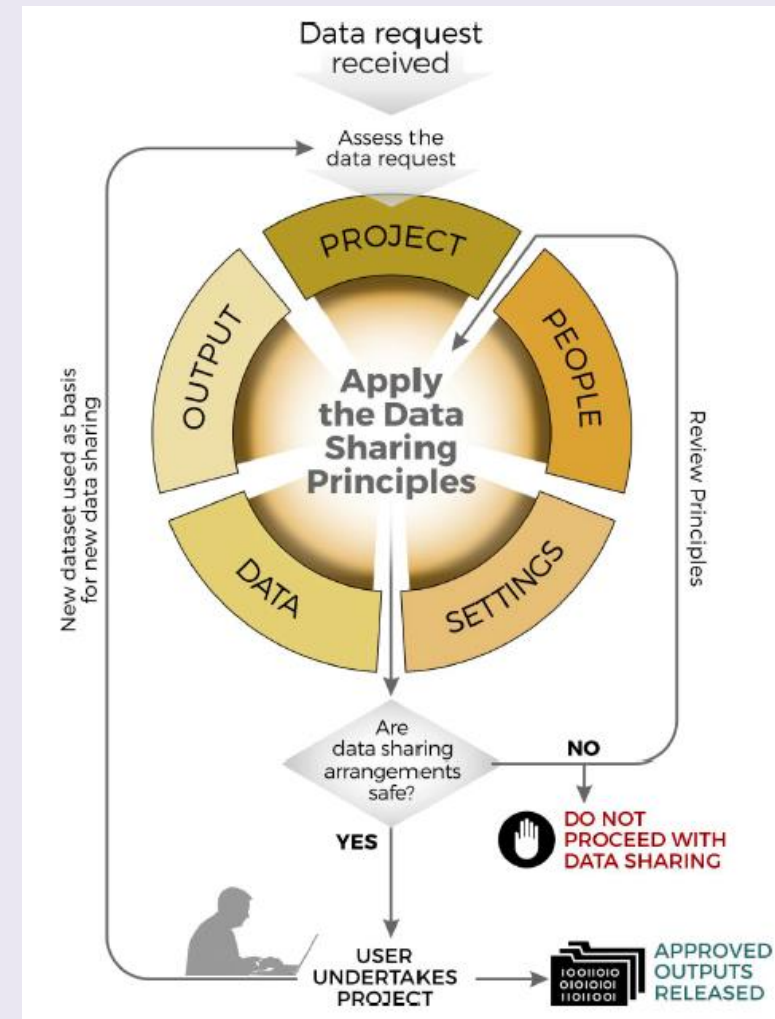
Source: ONDC (2019)

Protection vs. utility

- Custodians have a responsibility to minimise disclosure risk
  - Domain of "statistical disclosure control" established to support this
- Utility of data considers how usable and fit-for-purpose the data is for the analysis task at hand
- Trade-off between utility and protection – higher protections generally result in lower utility
- Application of the Five Safes – allows for management of these trade-offs across multiple dimensions of risk
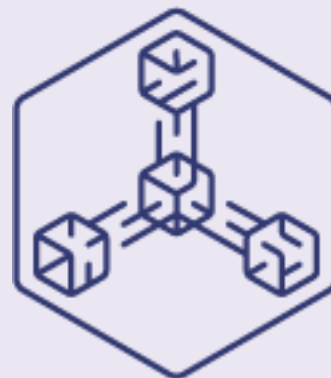
The Five Safes

CADRE

Safe Project

Safe Person

Safe Data

Safe Setting

Safe Output

What are the Five Safes?

Safe dimension	Ritchie et al. assessment	ONDC Principle
Safe projects	Is this use of the data appropriate?	Data is shared for an appropriate purpose that delivers a public benefit
Safe people	Can the researchers be trusted to use it in an appropriate manner?	The user has the appropriate authority to access the data
Safe data	Is there a disclosure risk in the data itself?	Appropriate and proportionate protections are applied to the data
Safe settings	Does the access facility limit unauthorised use?	The environment in which the data is shared minimises the risk of unauthorised use or disclosure
Safe outputs	Are the statistical results non-disclosive?	The output from the data sharing arrangement is appropriately safeguarded before any further sharing or release

Two Additional Safes
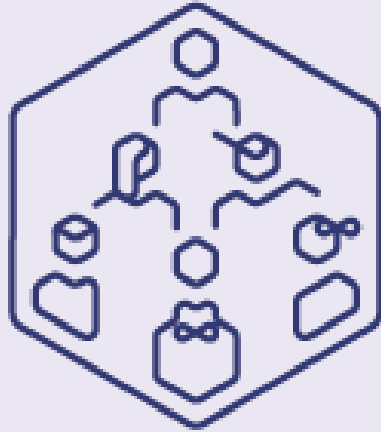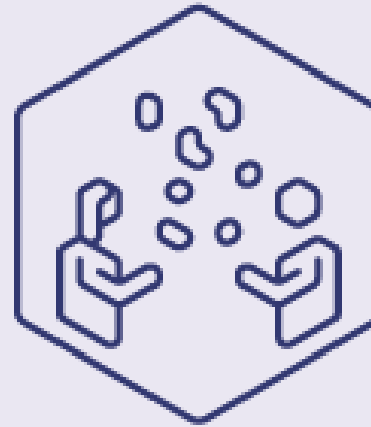
Organisations

Groups

Safe Organisations + Groups

CADRE

Organisations

- Legal implications

- Resources and infrastructure

- Legal and ethical controls

- Data sharing

Groups

Five Safes Dimension	Grouping
Safe people	People working in Research teams
Safe Projects	Projects completed as part of larger Work Programs
Safe Data	A linked dataset resulting from linkage or integration of multiple upstream Datasets
Safe Settings	Use of data from multiple sources, located in multiple settings
Safe Outputs	Multiple publications outputs resulting from a completed analysis

Joint and severable

- Dimensions are designed so that each can be evaluated independently of the others, as far possible.
- All five dimensions need to be considered jointly to evaluate whether a data access system can provide an 'acceptable' solution.
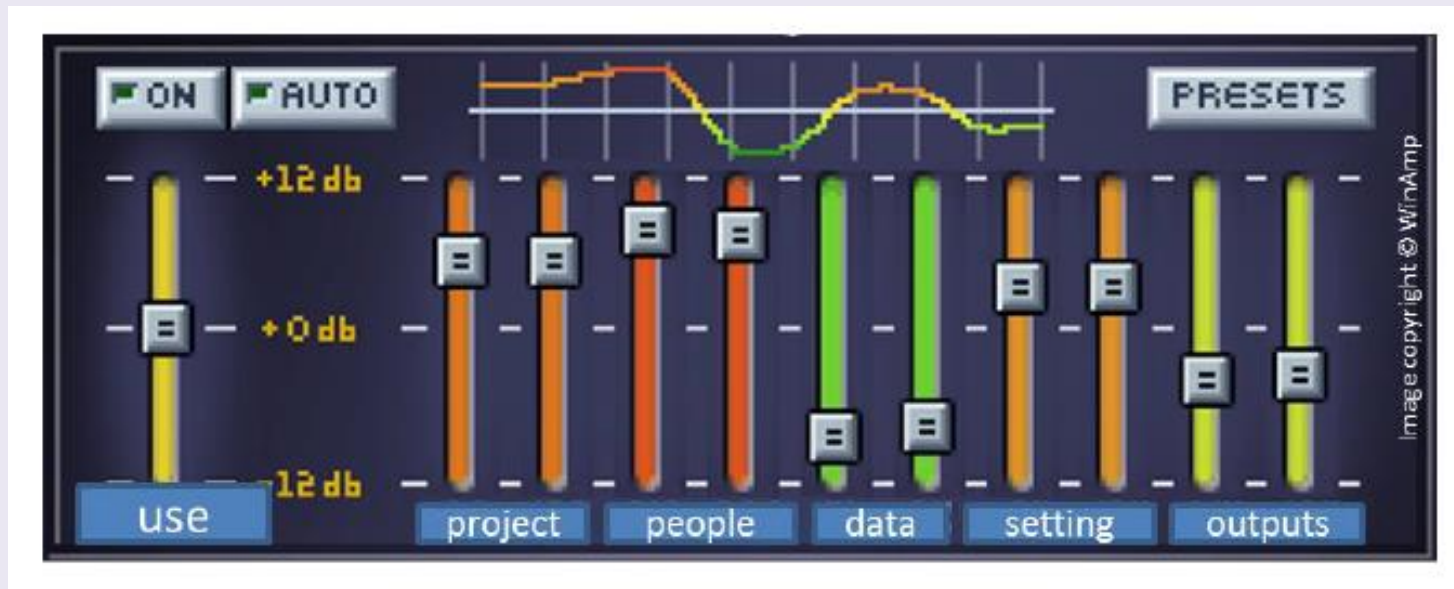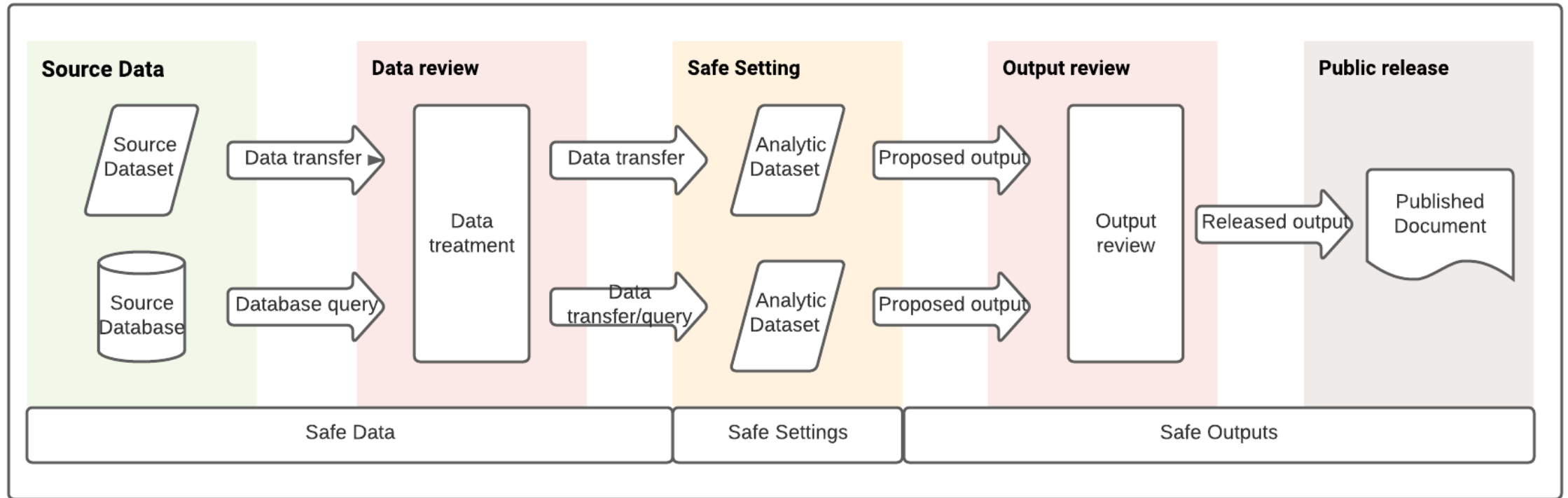
Part Two: Applying the 5 Safes in CADRE

Five Safes Video

- https://youtu.be/VeHDtSGEaJQ

Safe data, settings and outputs

Applying the Five Safes model

Diagram 2: the level of project control will depend on the level of detail being shared

PRIMARY DATA SOURCE				
EXAMPLE DATASET	Publicly available data (tables on website)	Aggregated dataset (download with conditions)	Research dataset (access in secure facility)	Data for linkage (within government agency)
EXAMPLE USERS	General public	Data Analysts	Academic or government researchers	Government staff

INCREASING DETAIL IN THE DATA

LEVEL OF CONTROL

PROJECT	None	Medium	High	Very High
PEOPLE	None	Low	High	Very High
SETTING	None	Low	High	Very High
DATA	Very High	High	Low	Very Low
OUTPUT	None	Low	High	Low

Example: Applying the Five Safes across data types

CADRE

→ Increasing detail in the data

Safe	Census aggregates	ANU Poll unit record files	MADIP
Data	Aggregate count files at ASGS levels	Confidentialised unit record files	Deidentified administrative records
Projects	None required	Specified in application	Specified in application
People	None	User information provided and validated	User information provided and validated, data sharing agreement signed
Settings	ABS website – open access, download	ADA Dataverse – restricted access, download	ABS Lab
Outputs	None	None	Output checking before release

Why does this matter?

❖ Researchers/Academics are experts in their fields but not necessarily in all things data.

❖ Five Safes provides guidance on how sensitive data accessed safely.

❖ Builds confidence & trust among the whole community – data users, data owners, data custodians and the public.

❖ Upskilling and supporting those who use sensitive data.

Part Two: Applying the 5 Safes at QCIF

Welcome Mark Hoffmann

Next Steps

CADRE

Thank You

Data Availability and Transparency Act Scheme

Data Availability and Transparency Act 2022
Provides a legislative authorisation and override with appropriate safeguards

National Data Commissioner

National Data Advisory Council

DATA Scheme Safeguards

Data Sharing Purposes

Sharing of Australian Government data must be in the public interest and for one of three purposes:

- Government service delivery
- Informing government policy and programs
- Research & development.

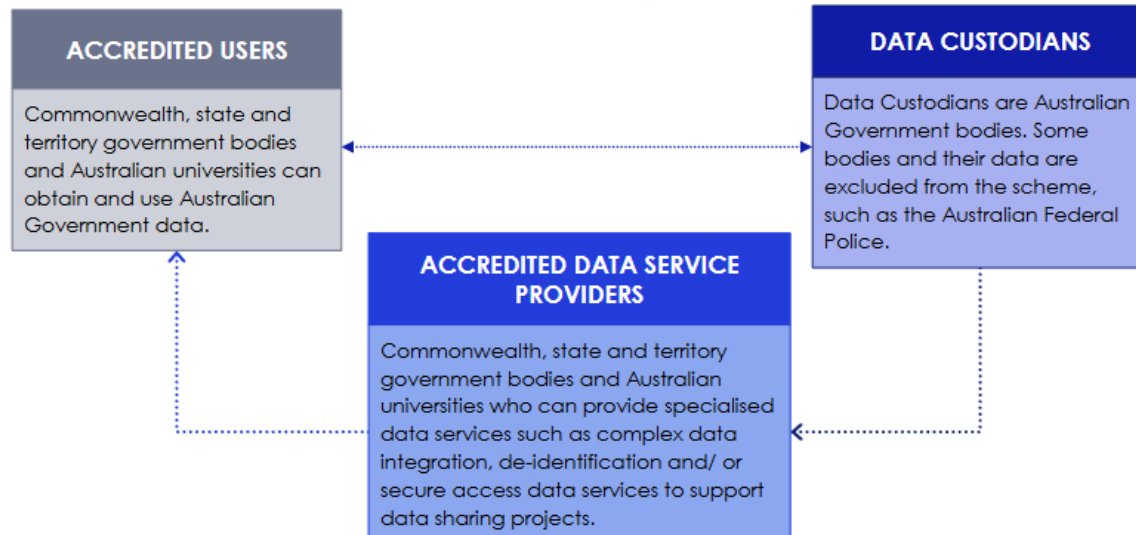Data can not be shared for the purpose of enforcement or compliance.

Accreditation

- Commonwealth, state and territory government bodies and Australian universities can be an Accredited User or Accredited Data Service Provider.
- The Minister or National Data Commissioner may grant accreditation.

Data Requests

- Data Custodians have no duty to share, but must provide reasons to Accredited Users if refusing a data sharing request.

DATA Scheme Operation

ACCREDITED USERS

Commonwealth, state and territory government bodies and Australian universities can obtain and use Australian Government data.

DATA CUSTODIANS

Data Custodians are Australian Government bodies. Some bodies and their data are excluded from the scheme, such as the Australian Federal Police.

ACCREDITED DATA SERVICE PROVIDERS

Commonwealth, state and territory government bodies and Australian universities who can provide specialised data services such as complex data integration, de-identification and/ or secure access data services to support data sharing projects.

Data Sharing Principles

- Data Sharing Principles must be applied to all data sharing.
- The Principles manage data sharing risk by applying controls on the project, people, setting, data and output.

Privacy protections

- The DATA Scheme works with the *Privacy Act 1988* to protect personal information.
- The privacy protections minimise the sharing of personal information, prohibit the re-identification and storage of data or access of personal information outside Australia.
- Express consent is always required to share biometric data.

DATA Scheme Safeguards

Regulation and compliance

- National Data Commissioner handles complaints conducts monitoring and assessment activities and investigations.
- National Data Commissioner can issue directions and seek civil and/or criminal penalties.

Transparency and reporting

National Data Commissioner must:

- keep public registers of Data Sharing Agreements, Accredited Users and Accredited Data Service Providers.
- prepare an Annual Report on participation and operation of the DATA Scheme.

Data Sharing Agreements

- Arrangements, including the application of the data sharing principles, must be documented in a Data Sharing Agreement.
- Agreements that meet scheme requirements must be registered by the National Data Commissioner to take effect.

Data Discovery
Supporting agencies to develop data inventories and build an Australian Government Data Catalogue to help users find data

Dataplace
A digital platform for scheme participants and others to manage data requests and support administration of the DATA Scheme

May 2022