CARDAT IT overview

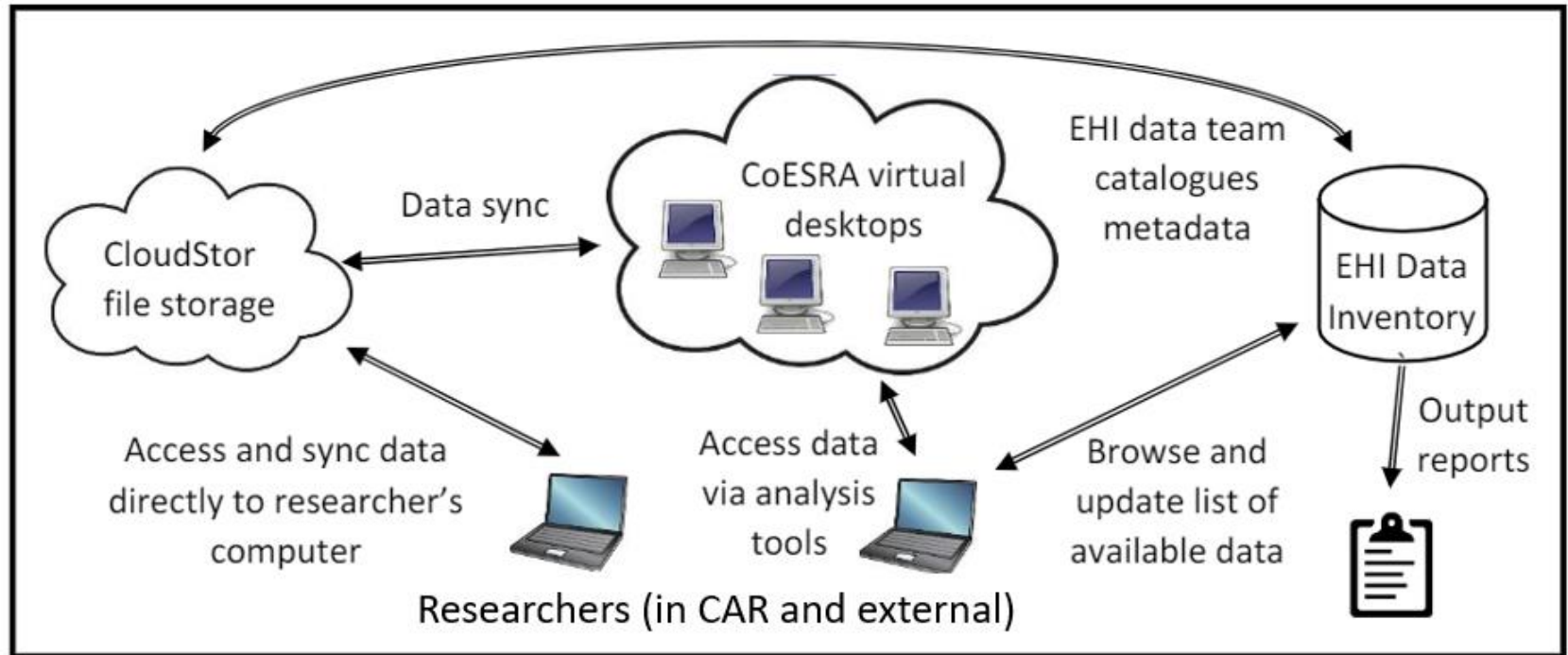by Christy Geromboux

CARDAT technology overview

Centre for Air pollution, energy and health Research (CAR) Data Analysis Technology (DAT) is a collection of IT infrastructure that enables easy data sharing and reuse, and reproducible data analysis.
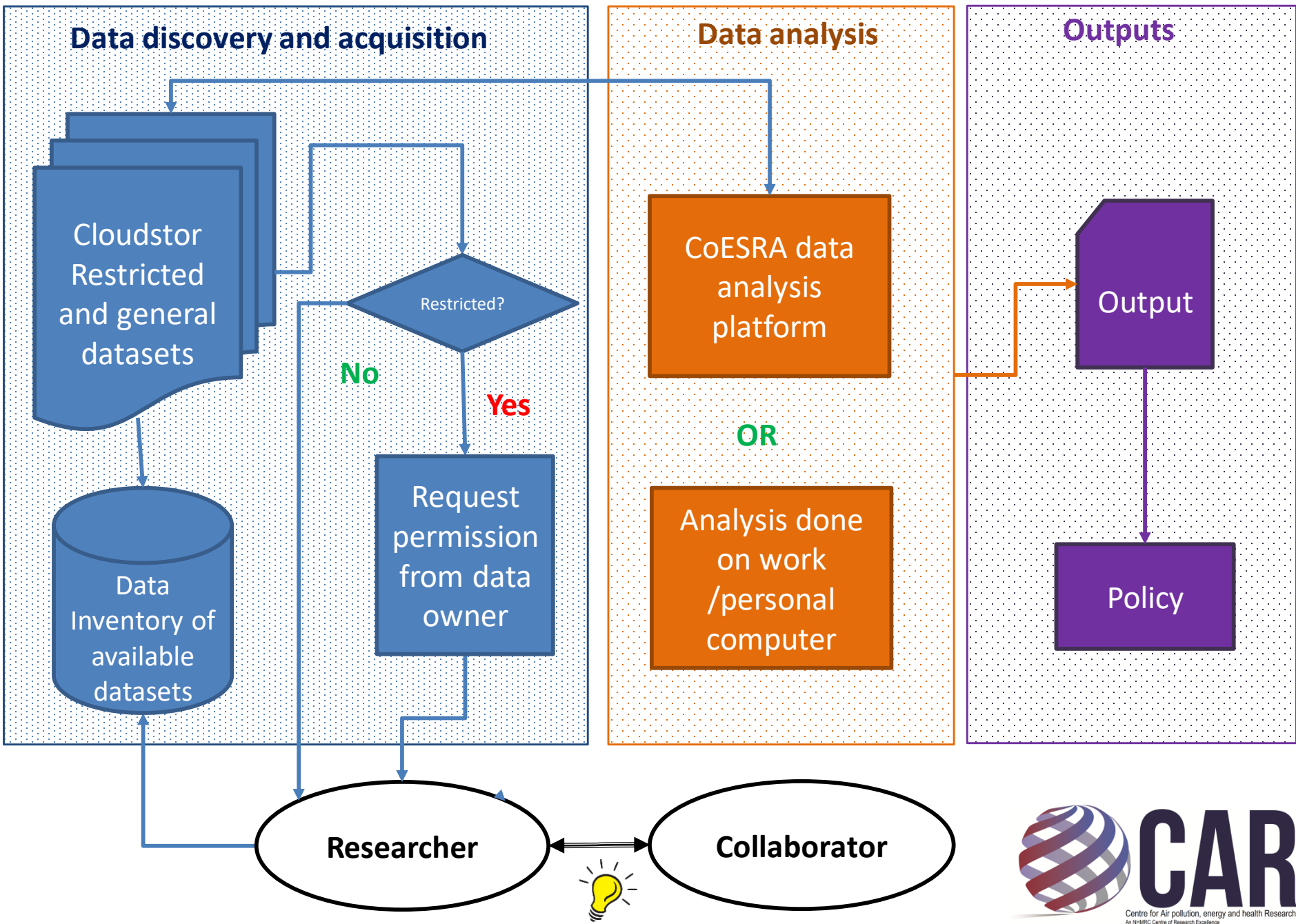
- the CAR Data Inventory (a catalogue of available datasets and their associated metadata records,

- a cloud based file store (CloudStor) which enables shared access to datasets, and the ability to sync data automatically

- an online platform for data analysis (CoESRA) which provides a secure environment for reproducible, collaborative data analysis.

CAR is an NHMRC funded Centre of Research Excellence (CRE) funded from 2017 to 2021.

An overview of the technology

Data discovery and acquisition

Cloudstor Restricted and general datasets

Data Inventory of available datasets

Restricted?

No

Yes

Request permission from data owner

Data analysis

CoESRA data analysis platform

OR

Analysis done on work /personal computer

Outputs

Output

Policy

Researcher

Collaborator

car-cre.org.au

CAR
Centre for Air pollution, energy and health Research
An NHMRC Centre of Research Excellence

Why use CoESRA

- No need to synchronise or download large dataset locally.

- Your analysis environment can be configured.

- It provides an easy way to work collaboratively on the same files, even across organisations.

- There are a range of pre-installed technologies for manipulating data (preventing issues with versions and software dependencies).

- Data analysis can be done in a reproducible and transparent way.