



DARE UK

SACRO: Semi-Automated Checking of Research Outputs

*Professor Jim Smith,
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The Data Sharing Balancing Act

Need for data
to answer key
questions

Patient
confidentially
and public trust



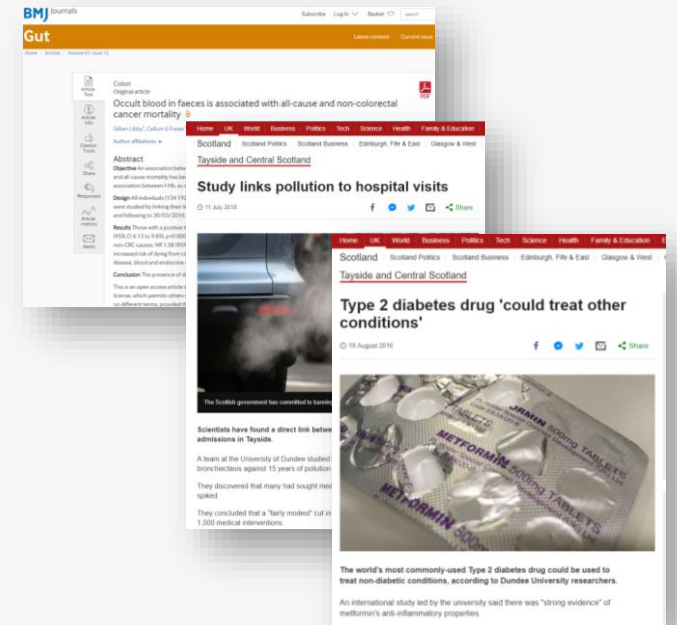
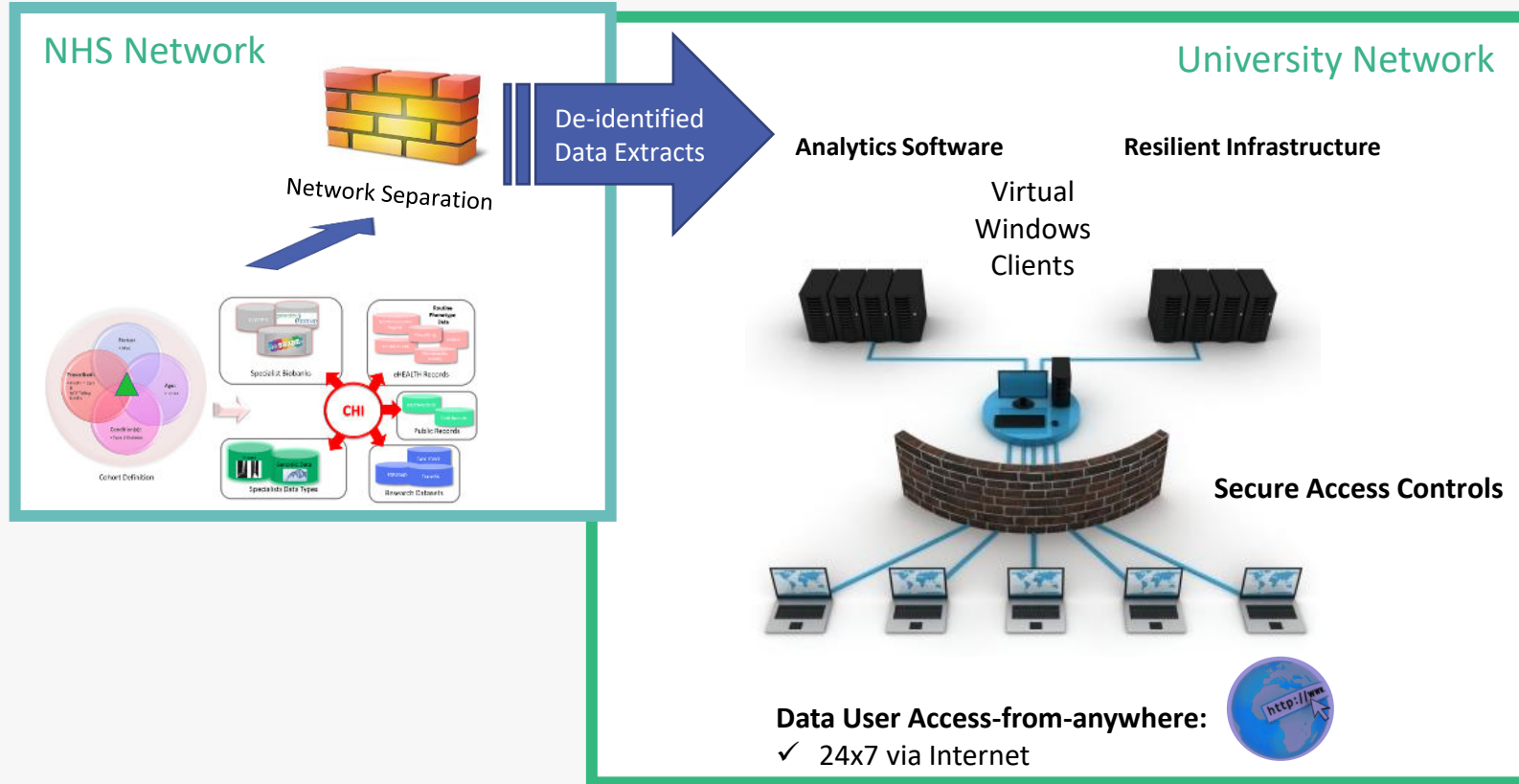
"Exactly what the antibody drop means for immunity is still uncertain"



"A wave of emergency powers and extreme measures in response to the coronavirus pandemic have brought about the greatest loss of liberty in our country's history"

Trusted Research Environment (TRE)

- Data can't leave and is accessed virtually



Safe People

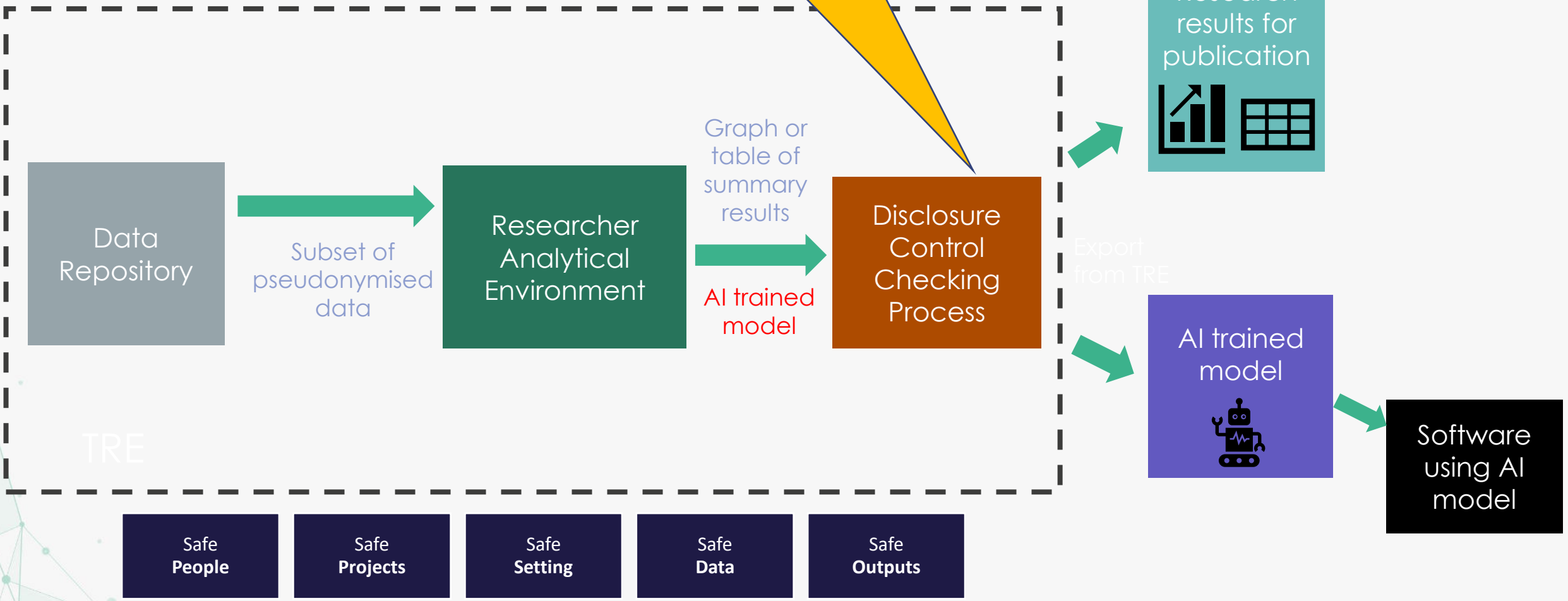
Safe Projects

Safe Setting

Safe Data

Safe Outputs

(Semi) Automating this bottleneck!



Who are we (alphabetically)

Universities

- Aberdeen
- Dundee
- Durham
- Edinburgh
- Oxford
- UWE

Public Data Bodies

- Health Data Research UK
- NHS Scotland
- Public Health Scotland
- Research Data Scotland

TREs

- DASH (Aberdeen/Grampian)
- DataLoch (Edinburgh)
- HIC (Dundee)
- eDRIS (Public Health Scot)
- OpenSafely (Oxford)

External collaborators / steering group:

UK: ONS, NHS-Digital, and SAIL Databank

Global: Eurostat, Bundesbank, SDC-GESIS, ICPSR (US)

Addressing the bottleneck in output checking

Leveraging experience from

- Pioneering the 5-Safes idea
- Creating a proof of concept now in use at EuroStat
- Advancing the theory of disclosure control
- **Operating TREs in different disciplines**
- Analysing ML disclosure risk
- Engagement with Stakeholders & Public

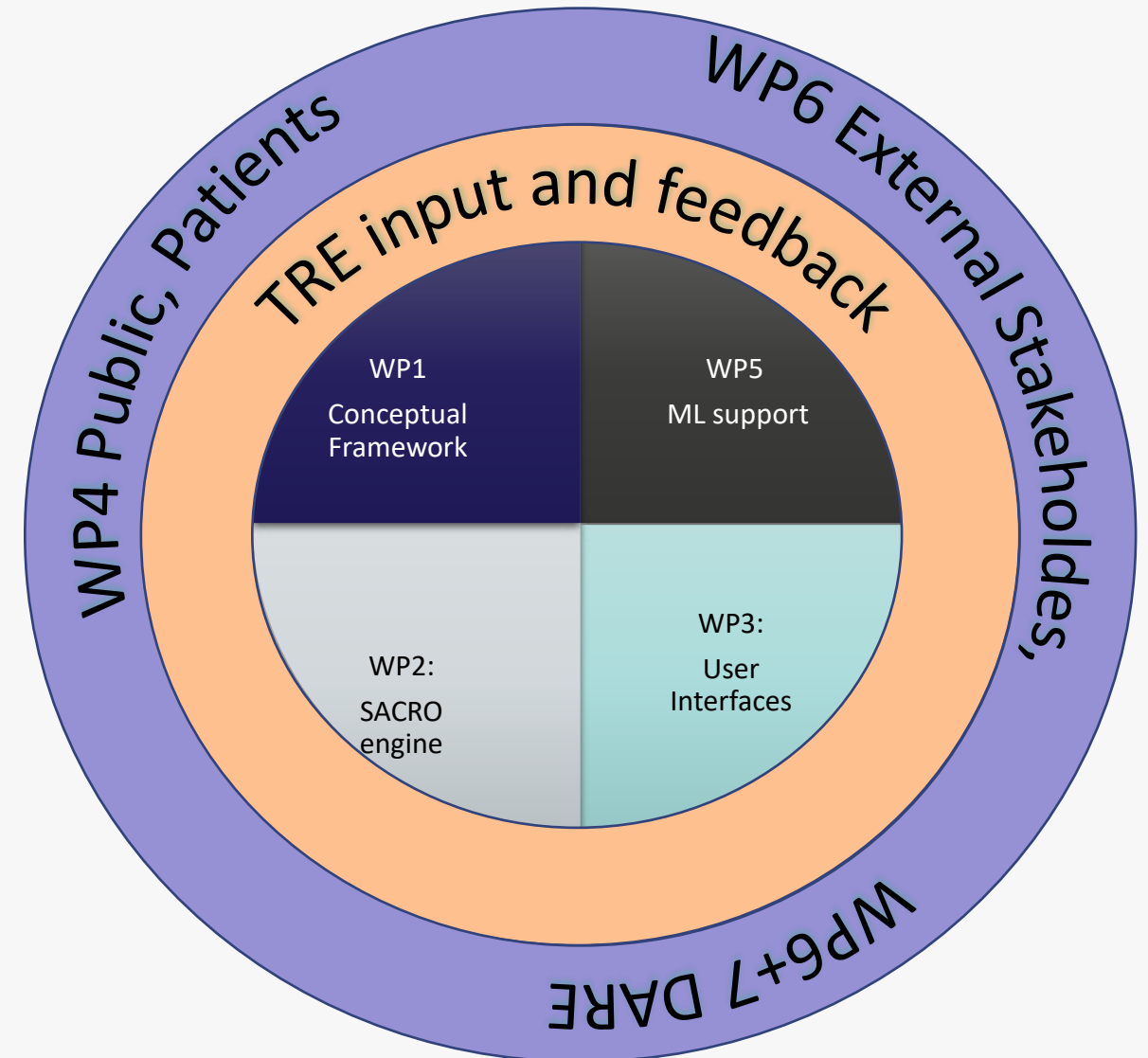
Involving public, TREs and wider stakeholders to co-produce:

- A comprehensive framework and guidelines helping TREs:
 - choose appropriate disclosure protocols
 - specify risk appetite
 - in a common format to increasing consistency & interoperability
- Tools that can automatically check most outputs:
 - Allowing for TRE/dataset risk appetite
 - improving auditing by outputting reports in a structured format
- User Interfaces that fit the TRE workflow
 - helping researchers avoid requesting disclosive outputs,
 - helping output checkers' focus more time on complex outputs
 - Future-proofed for support of e.g., ML

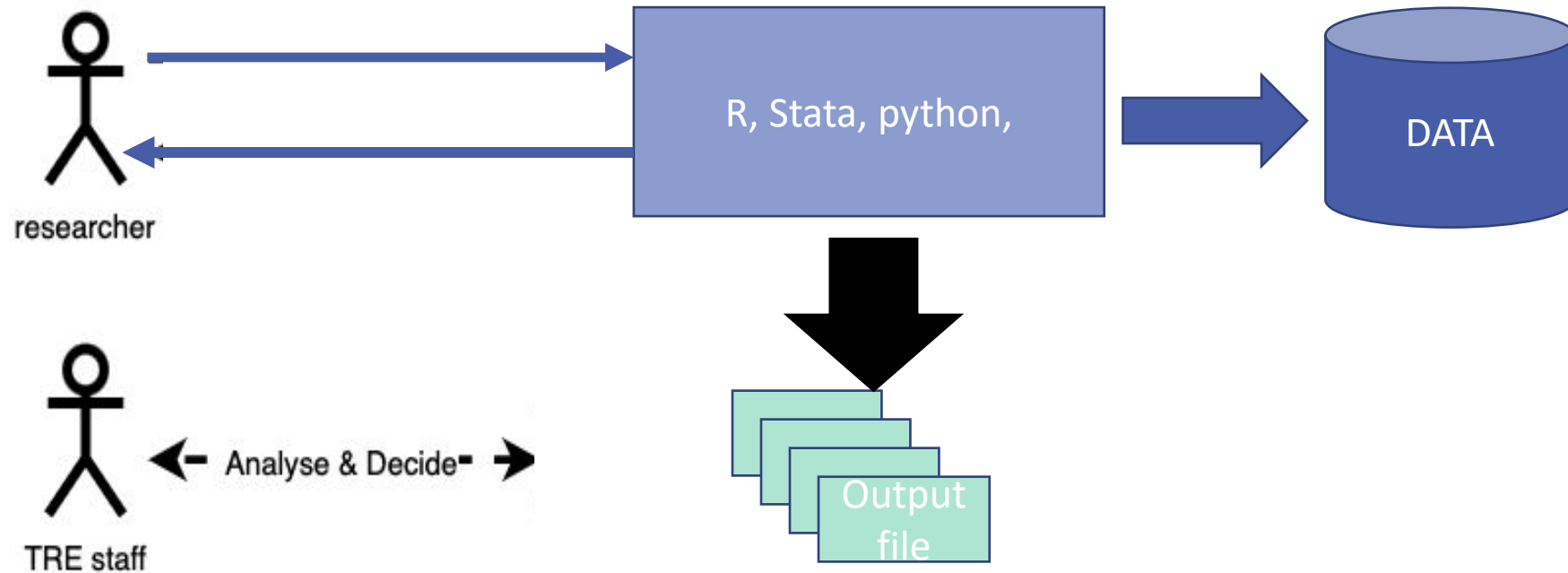


Embedding Stakeholders views throughout

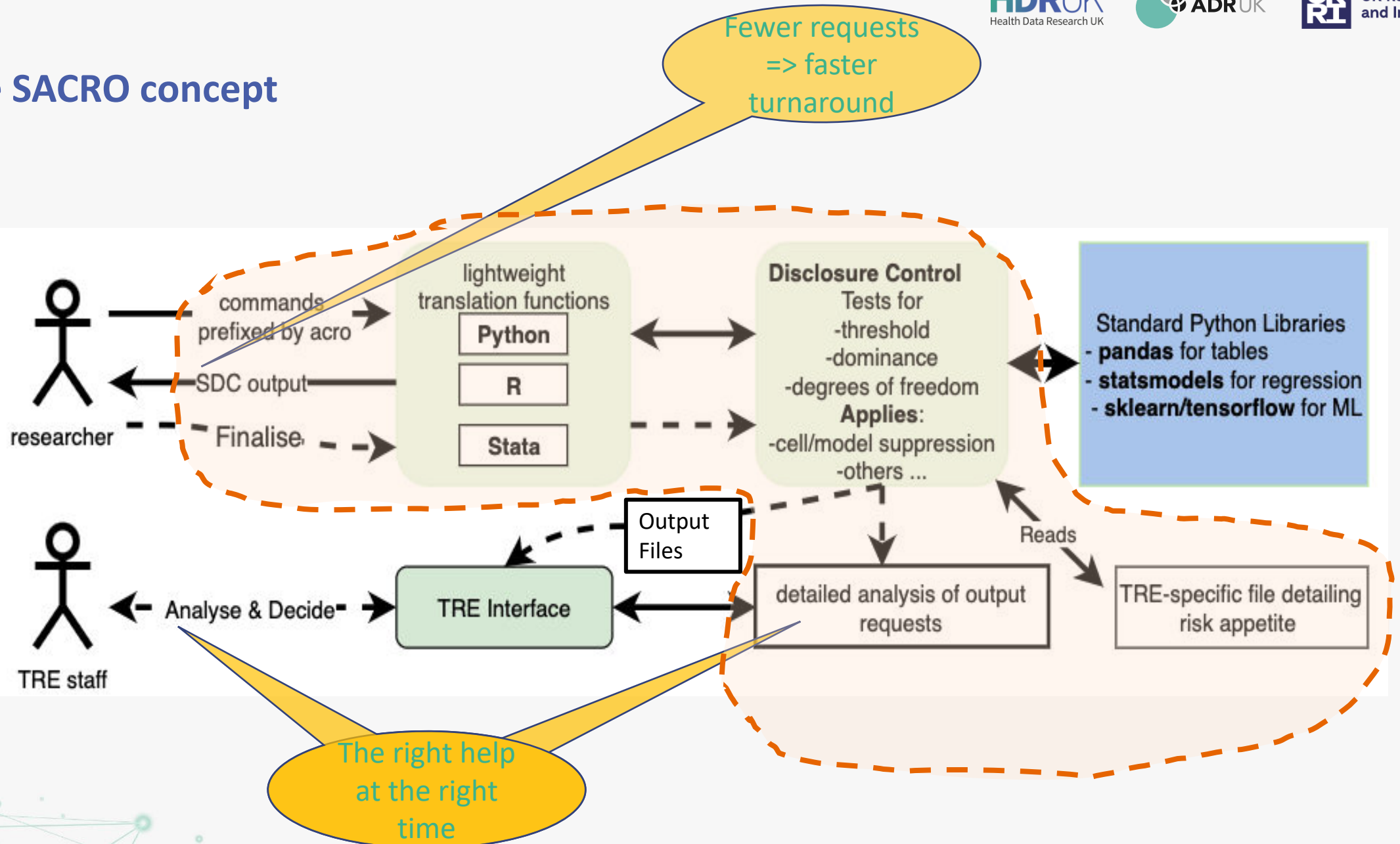
- Scoping: Reverse Science café's
- 3 main sprints, TREs involved in assessing outputs from each
- External Steering Body
- PIE:
 - Series of workshops
 - Followed by Delphi exercise to develop statement of public concerns



The current situation for output checkers



The SACRO concept





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Thank you for listening