



**Australian Government**

**Department of the Environment and Energy**

# **Australia's National Inventory System for GHG inventory reporting**

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**National Inventory Team**

**National Inventory Systems and International Reporting Branch**



# Australia's GHG Inventory experience:

## Key points

Designed to fulfil international commitments

Stable and supportive institutional arrangements

Modest beginnings, but now 25 years experience

Strategic Investments: data collection – companies and remote sensing – models and data management

Still learning – starting to develop wetlands inventory accounts

# Stable and supportive institutional arrangements

## Department of the Environment and Energy

- Inventory compilation centralised in the National Inventory Systems and International Reporting Branch
- Inventory focused – continuous presence through changes of government
- Legislative/contractual basis for data collection

## Benefits

- Effective co-ordination of diverse information sources.
- ‘Critical mass’ of technical and logistical expertise and experience.
- The confidence that resources will be there in the future supports continuous improvement.

# Development of institutional arrangements: arrangements for coordinating agencies

The Australian Government has built centralised institutional arrangements

Designed to support international reporting obligations under the UNFCCC and KP

- monitor, collect and manage data;
- report; and
- develop policy and measures.



## Development of institutional arrangements: centralisation

Coordination and centralisation of inventory, projections, policy and reporting

- Good coordination of information inputs into reporting is critical
- Underpins the ability to see past emissions, and connect to what is expected for the future
- Reliable and accurate reporting on mitigation actions and projections is based on a high quality inventory
- This in turn leads to effective climate change policy development



# Development of institutional arrangements: coordination of reporting across agencies

The Department of the Environment and Energy is responsible for:

- UNFCCC reports and their technical reviews, including inventories and projections;
- domestic climate policies and measures, including mitigation and adaptation action; and
- providing technical support to developing countries.

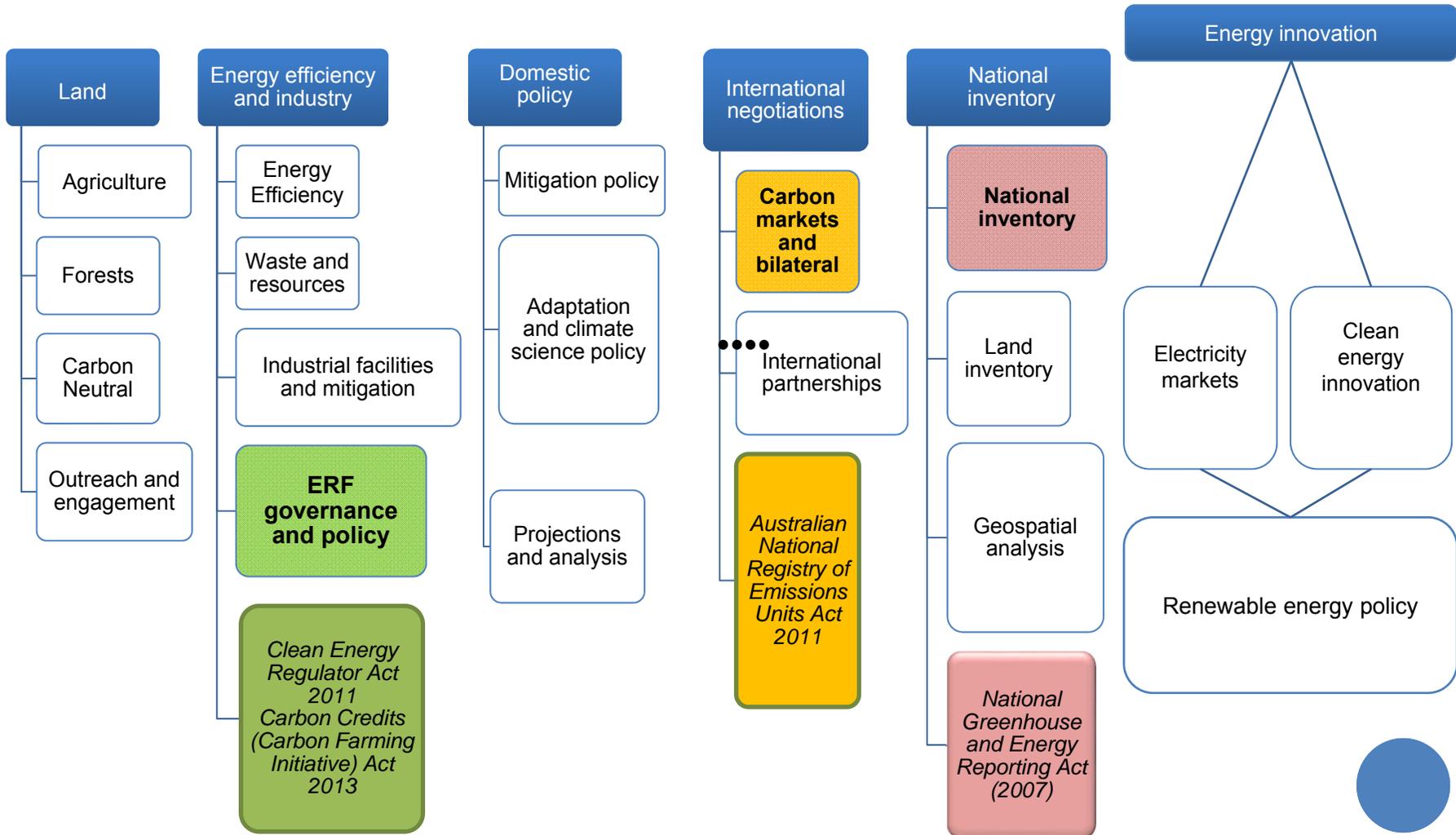
Coordination with other agencies:

- Department of Foreign Affairs and Trade – UNFCCC negotiations and support to developing countries;
- Department of Industry - energy efficiency programs; and
- Clean Energy Regulator - progress on the administration of programs.

# OFFICE OF CLIMATE CHANGE AND RENEWABLES INNOVATION

## Domestic Emissions Reduction Division

## International Climate Change and Energy Innovation Division



# Development of Australia's institutional arrangements

Environment department	Climate Change policy		Australian Greenhouse Office	Energy efficiency programs	CCRED ERF	OCCARI CCRED ERF CER ARENA, CEFC
Independent climate policy		Australian Greenhouse Office [report to 7 Mins] [report to 2 Mins]		Dept of Climate Change	Dept of Climate Change + Energy Efficiency	
Stand alone climate agencies					CER	CER ARENA CEFC
Industry department	Industry / climate policy				ARENA CEFC	Energy eff. programs Energy eff. programs
DFAT	Int'l negotiations	Int'l negotiations	Int'l negotiations			Int'l negotiations Int'l negotiations
Prime Minister's department	Kyoto Protocol review					Paris review

# Development of institutional arrangements: continuous improvement

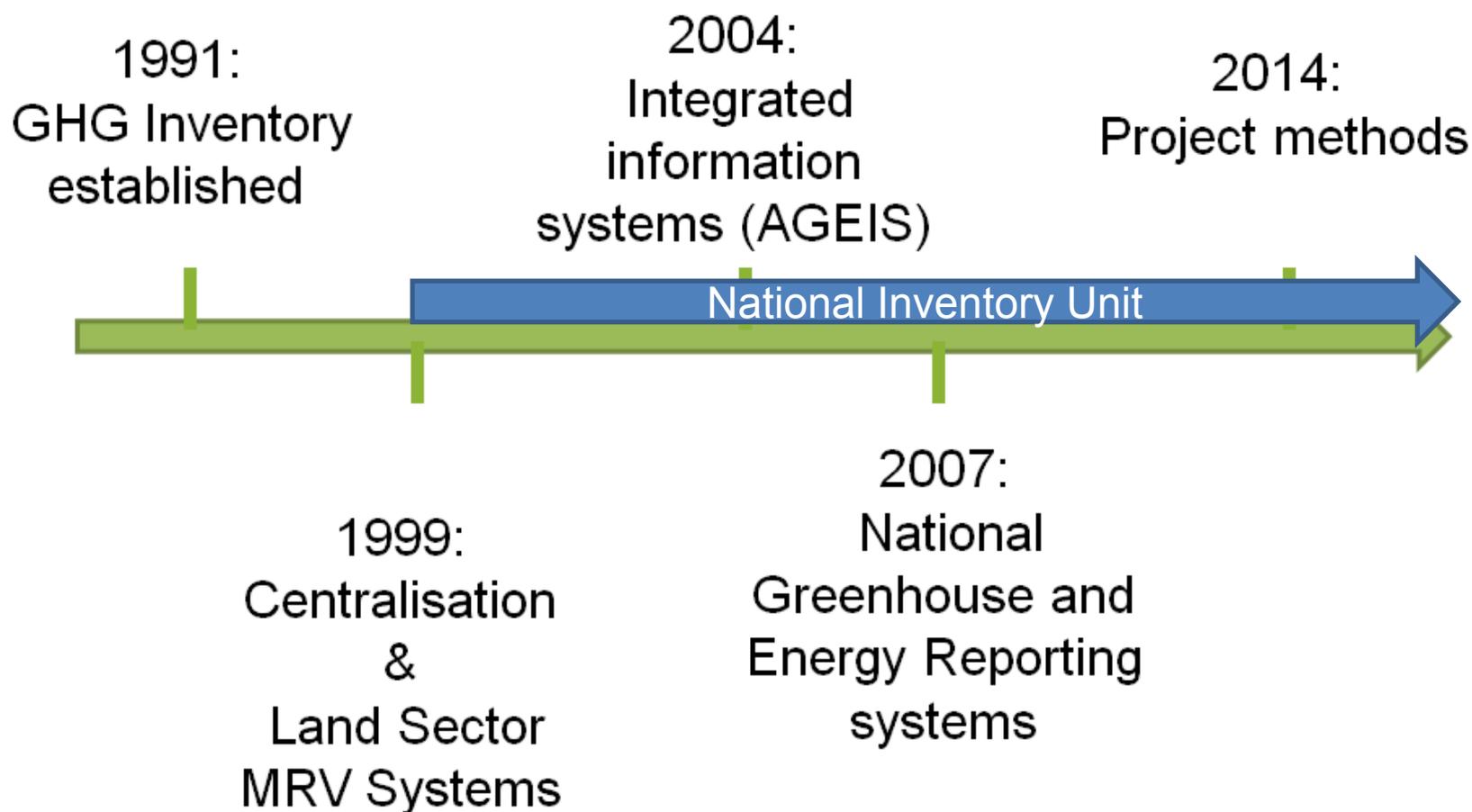
## International reviews

- Provide feedback to improve systems
- Provide a mandate to agencies to seek domestic support and resources
- Build confidence in the inventory and institutional arrangements with policy makers and the general public



# Over 25 years of experience

## Evolution of Australia's national inventory system



# Development of Australia's institutional arrangements

Australian Greenhouse Emissions Information System (AGEIS) (2004 - )

IT data management system

- AGEIS designed to meet requirements for the National Inventory System
- Integral part of inventory preparation and publishing processes
- Fully integrates QC procedures
- Centralises emission estimation, inventory compilation, reporting and archiving



# Australian Greenhouse Emissions Information System

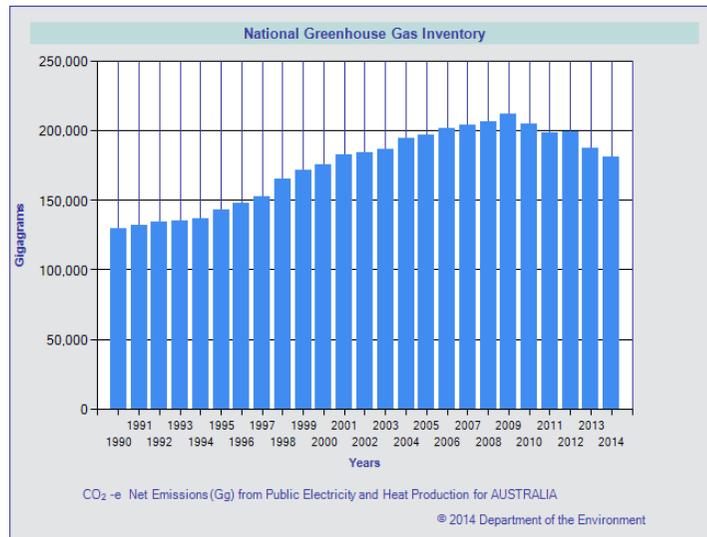


Chart Options Table Options

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Select End Year

2014

Copy to Clipboard Copy to CSV File

Gigagrams

1990	1991	1992	1993	1994	1995	1996
129,553.90	131,721.66	134,577.51	135,503.12	137,078.46	142,699.33	147,728.75
1997	1998	1999	2000	2001	2002	2003
152,760.27	165,395.60	171,618.92	175,409.30	182,682.16	183,981.10	186,557.58
2004	2005	2006	2007	2008	2009	2010
194,598.88	196,759.01	201,311.10	204,126.29	205,952.58	211,694.57	205,086.57
2011	2012	2013	2014			
198,489.04	199,117.11	187,025.94	180,754.94			

- Data management
- Emissions estimation
- QC functions
- Auditability
- Report production
- CRF Reporter Tool population
- Data archiving
- Public accessibility

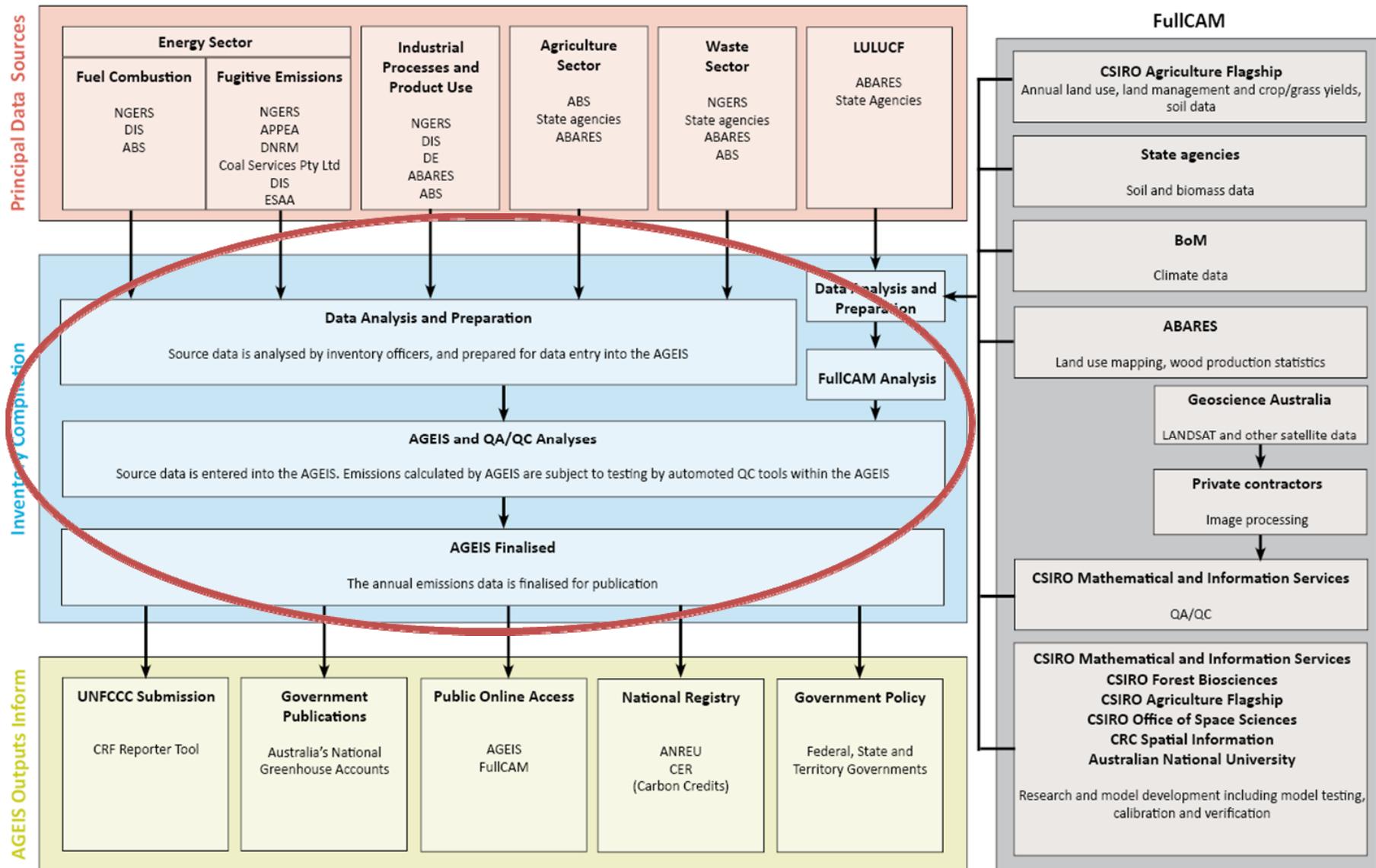
<https://www.environment.gov.au/climate-change/greenhouse-gas-measurement/ageis>



Australian Government  
Department of the Environment



# Australian Greenhouse Emissions Information System



# Development of Australia's institutional arrangements

National Greenhouse and Energy Reporting (NGER) Scheme (2007-)

## **Mandatory reporting system for companies**

- Supports our international reporting obligations
- Underpins our domestic mitigation policy
- Informs policy development and the public
- Assists government programs and activities

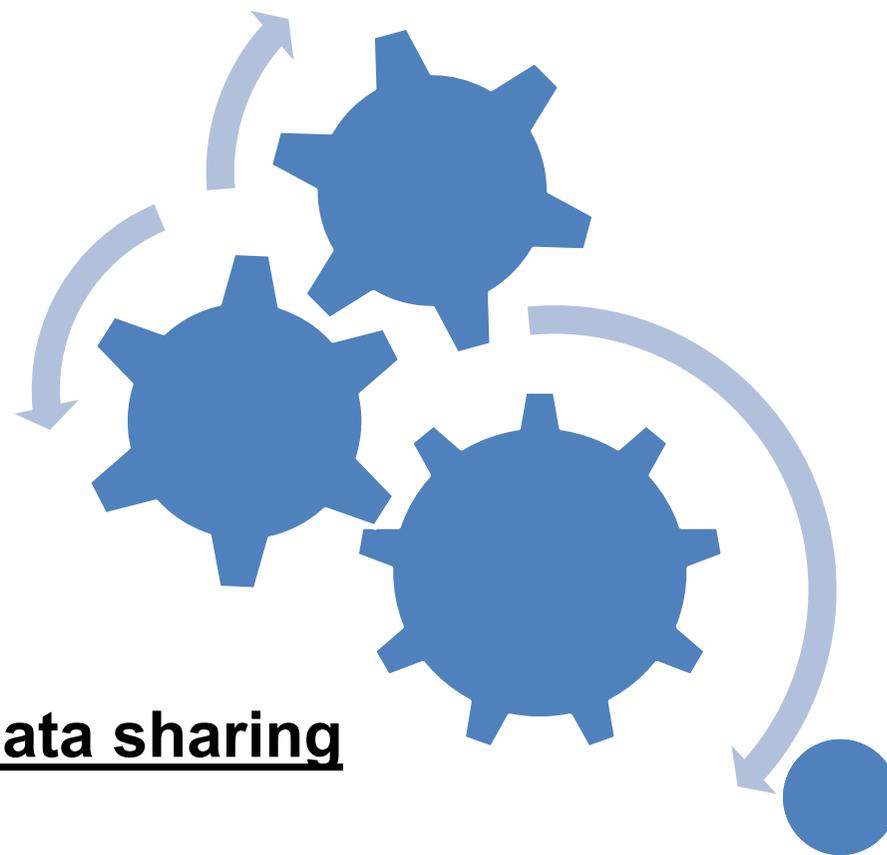
## **Reporting with methods based in national inventory methods**

**Prior to NGERS, reliance on voluntary collections utilising existing datasets such as taxation and commercial systems.**



## NGERs: key efficiencies achieved

- Streamlined collection process
- Guaranteed data
- Facility level data
- Improved data quality
- Improved coverage

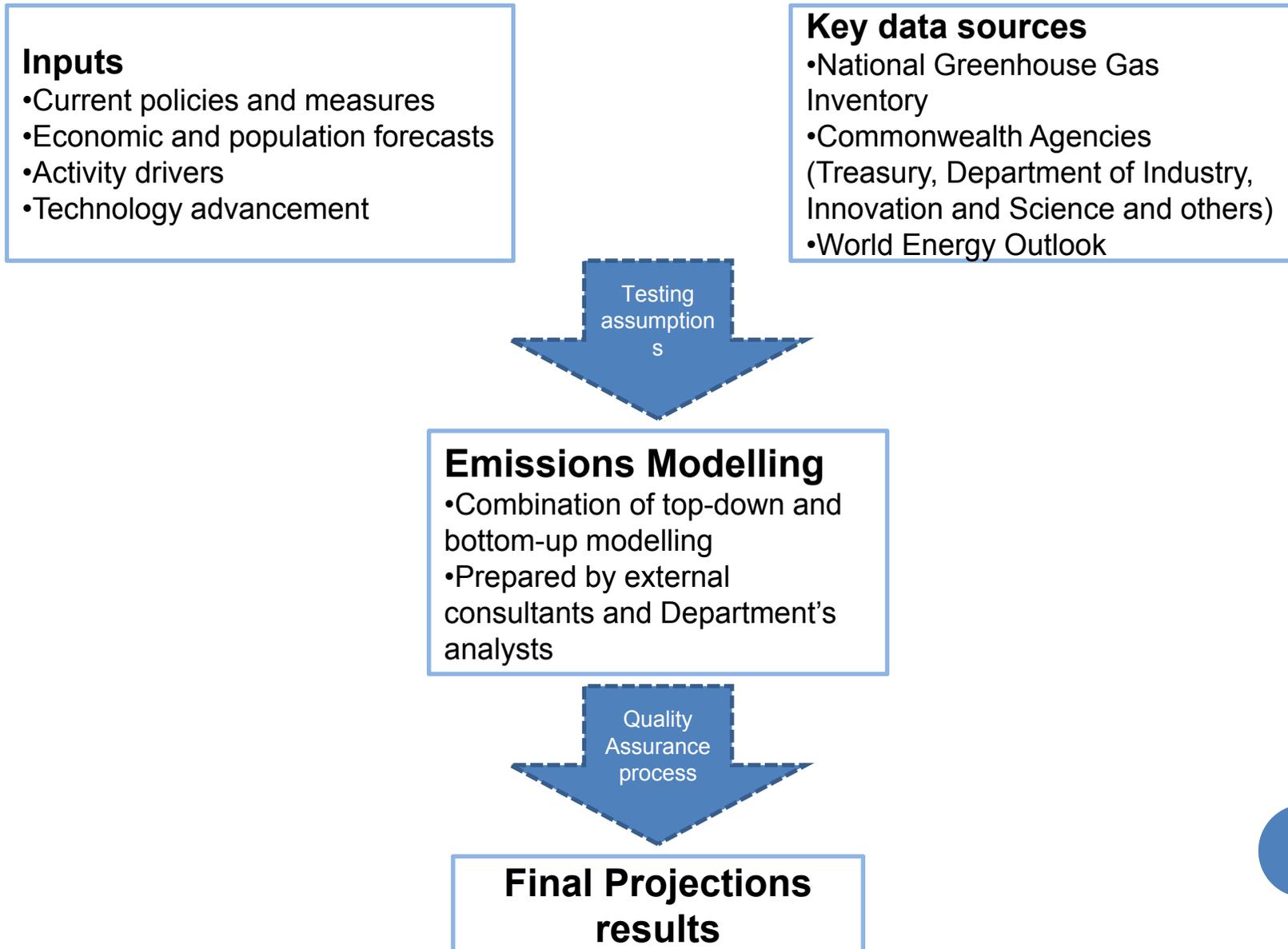


**Replaced many voluntary data sharing arrangements**

# National Greenhouse Accounting framework – nesting of international, national and state project methods



# Projections based on Inventory



# Support for emissions policy

**NIS provides for independent monitoring of government emission reduction measures – transparent and trusted estimates**

**NIS supports mitigation measures, including;**

- Emissions Reduction Fund and its Safeguard Mechanism,
- Renewable Energy Target, and
- Carbon Neutral Program

**NIS tracks the effects of these measures in the national inventory - crucial for Australia's mitigation strategy**



# Australia's experience: Conclusions

Inventories underpin a country's response to climate change

Start small and focus on planned, continuous improvement

Supportive arrangements & strategic investments in data collection and management systems are keys to an effective inventory

Quality control systems are critical. External scrutiny assists.