

Development of the BP GHG External Audit Program

EPA Climate Leader Partners Workshop

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who we are

BP is an oil, gas, petrochemicals and renewables company

we employ over 117,000 people

we have operations on 6 continents and in over 100 countries

...market capitalisation of \$160 billion (Q3 2002)

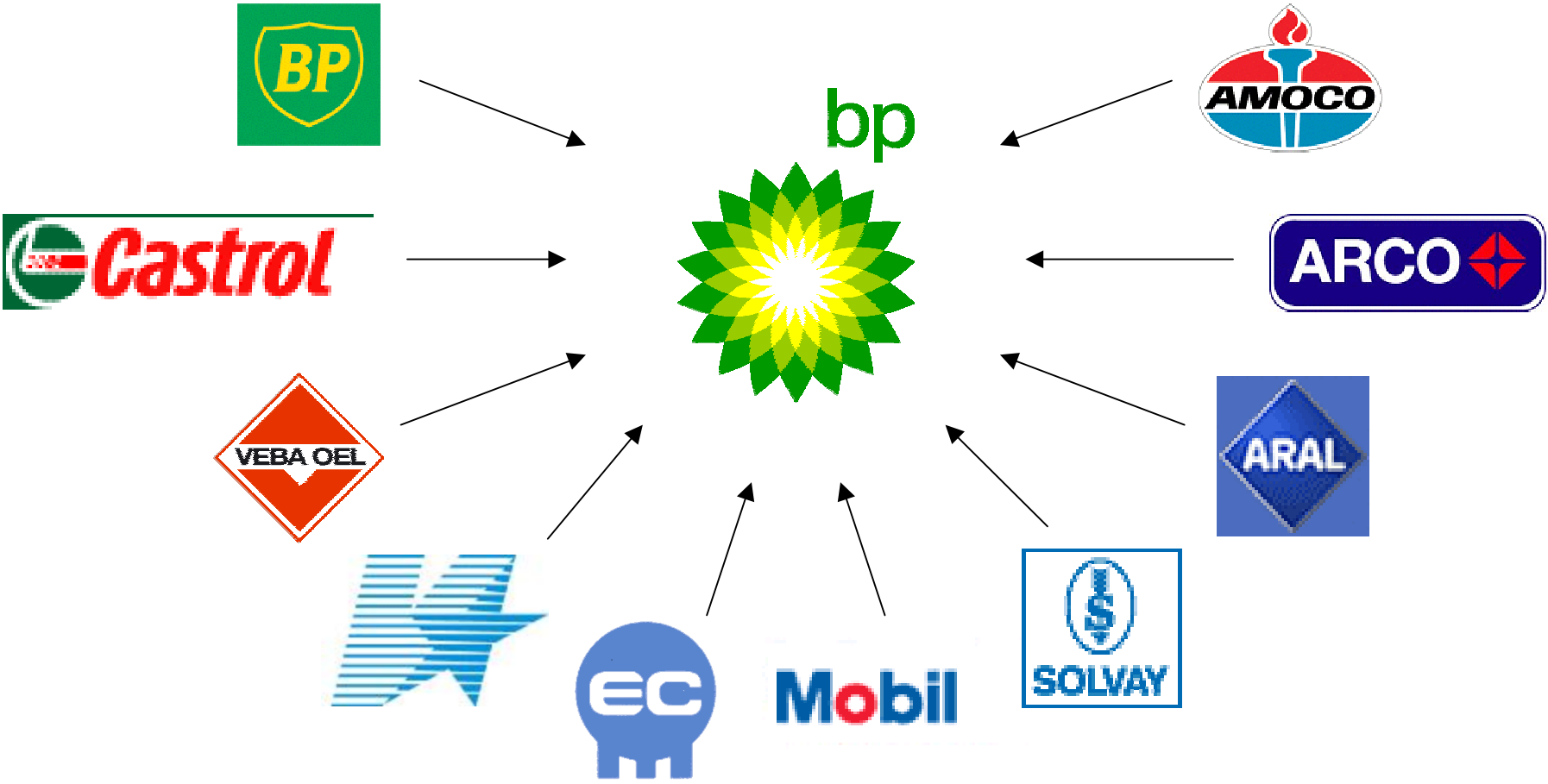
...annual revenues of \$174 billion (2001)

...the 2nd largest oil company and 7th largest company in the world

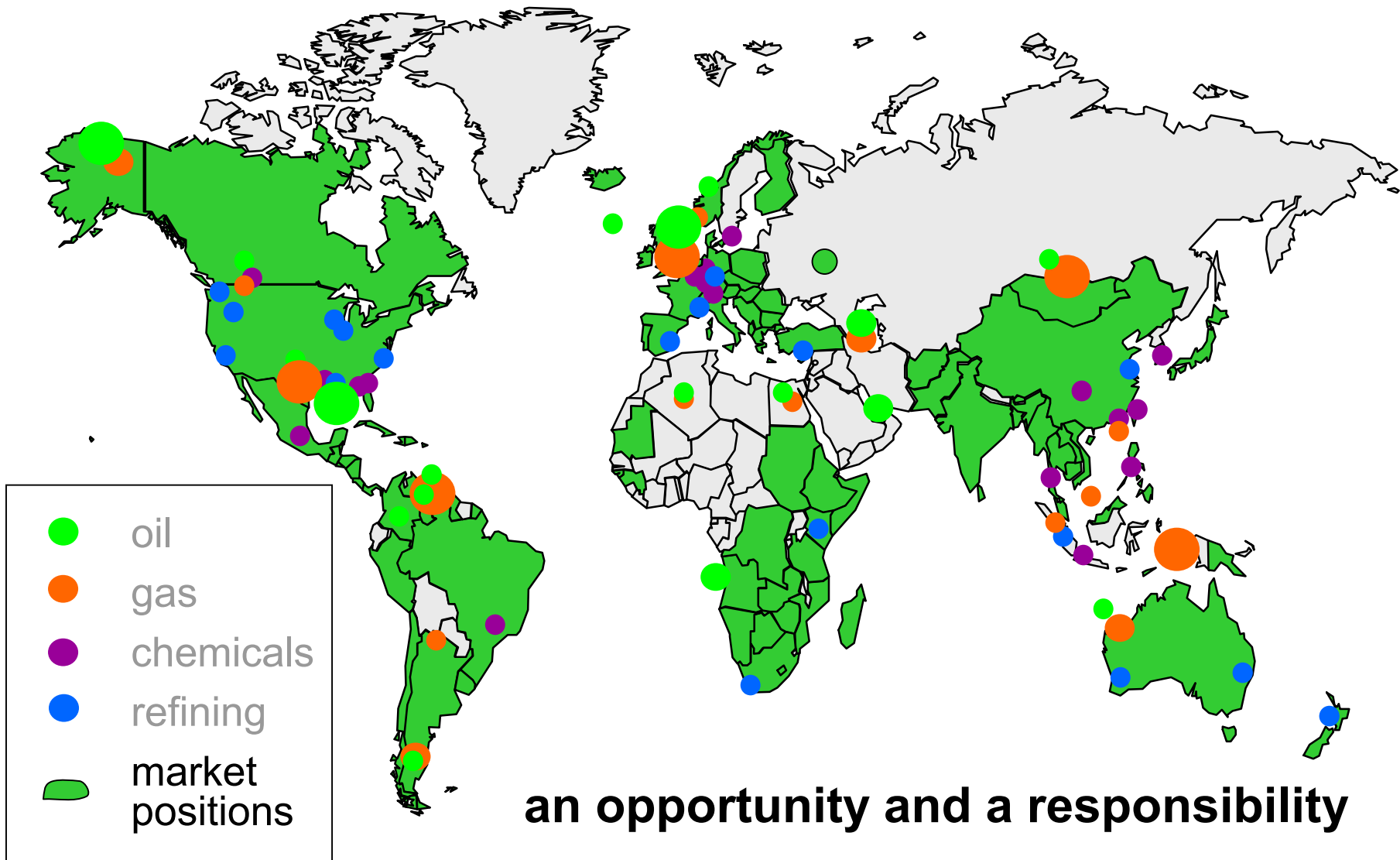
...over 25,000 service stations worldwide

...serving 13 million customers every day

where we have come from

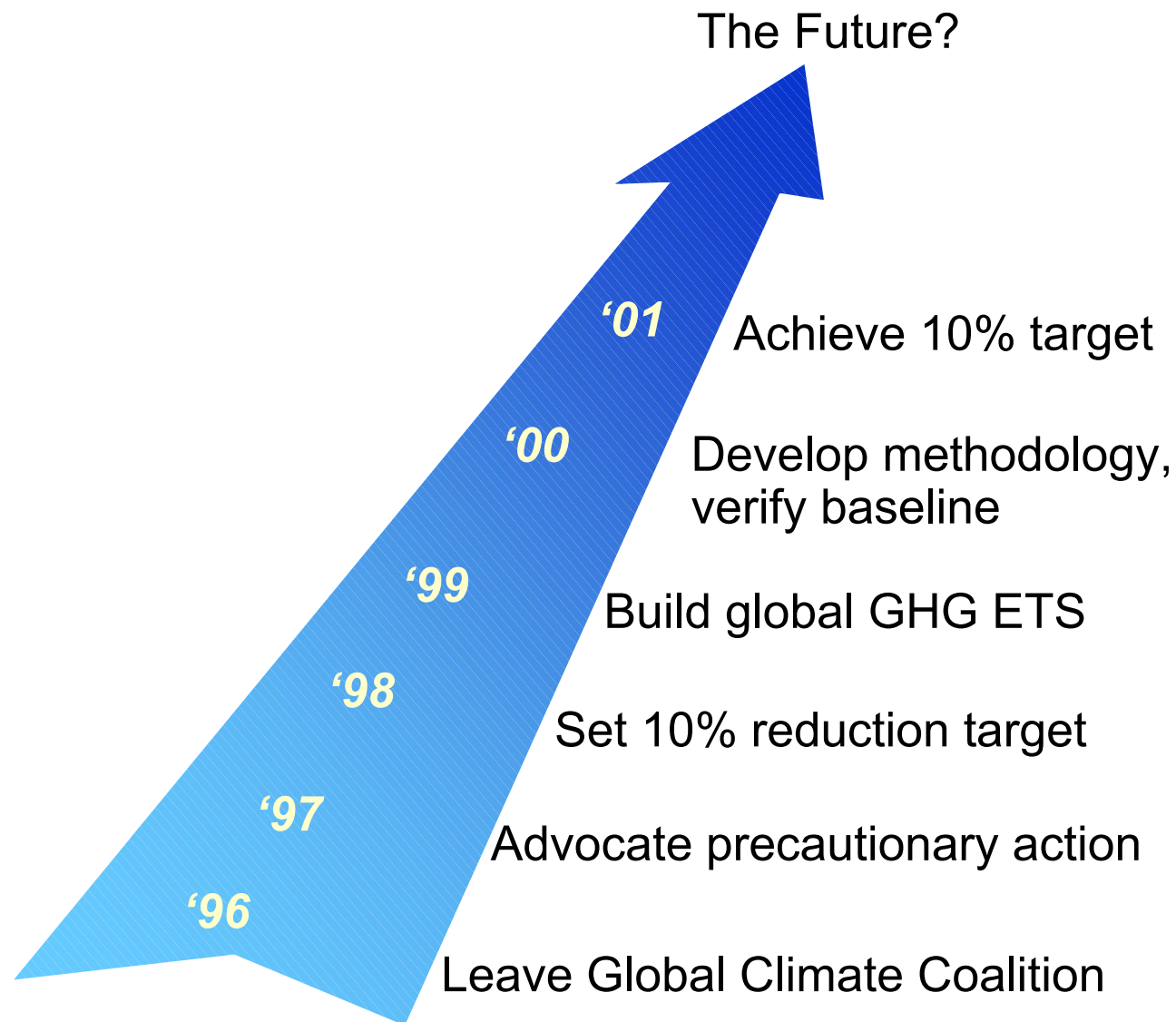


our global presence and scope



an opportunity and a responsibility

BP and Climate Change – Past Performance



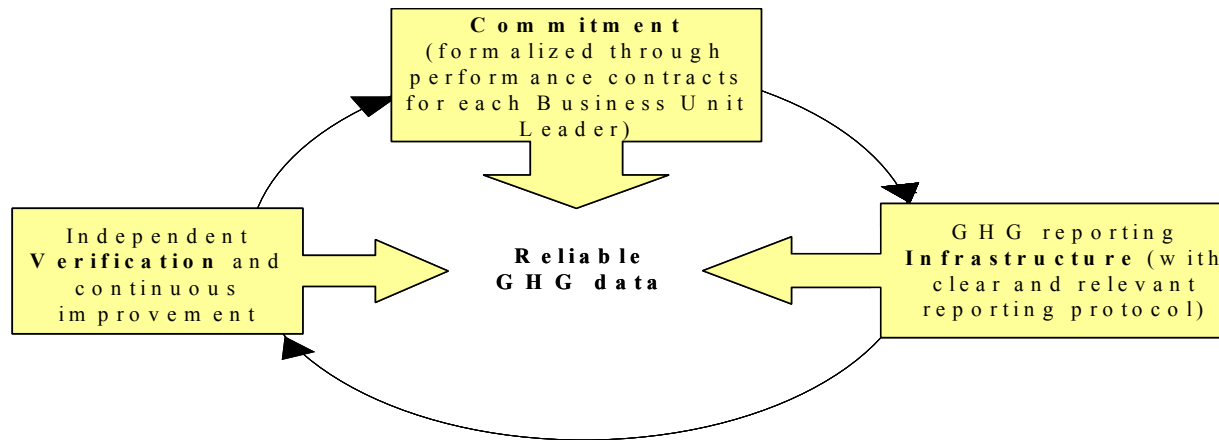
BP's 1998 GHG reduction commitment

“Our goal is to reduce our emissions of greenhouse gases by 10% from a 1990 baseline over the period to 2010. We'll do that progressively, year by year, and we'll do it in a transparent way so the reduction can be measured and verified by external observers.”

“In our terms that the target will now sit alongside our financial targets. That means it is a promise and, as with our financial targets, a promise is a personal commitment”

Sir John Browne, 18 September 1998

Good data is the key to achieving GHG reduction commitments



- BP recognized that the credibility of its GHG commitments, assessment of emission reduction initiatives, and effective functioning of the trading system rely on the ability to report data that are reliable, consistent and comparable. This in turn requires a sound infrastructure for collecting and reporting the data
- Infrastructure elements
 - An easy to use, broadly applicable reporting protocol
 - Good data controls and management systems
 - Facility staff that understand emission sources and are capable of applying the protocol clearly and consistently to complex data

why do we need external verification of GHG?

- External acceptance of BP's progress towards meeting our target
- Improved confidence in our emissions statements
 - **For evaluation of real reductions**
 - **Participation in emissions trading, internal and external**

Initial Group-wide GHG audit project

In 1998, BP commissioned a team comprising KPMG, DNV and ICF Consulting to undertake an audit of its GHG emissions data. This project was designed to:

- underpin BP's commitment to reduce its greenhouse gas emissions in a transparent way, establishing the credibility of emissions reductions to all internal and external stakeholders
- provide valuable learning in the audit and verification of GHG emissions across a diverse business, making this experience available to other interested organizations; and
- help ensure that GHG allowances are traded on a transparent and credible basis.

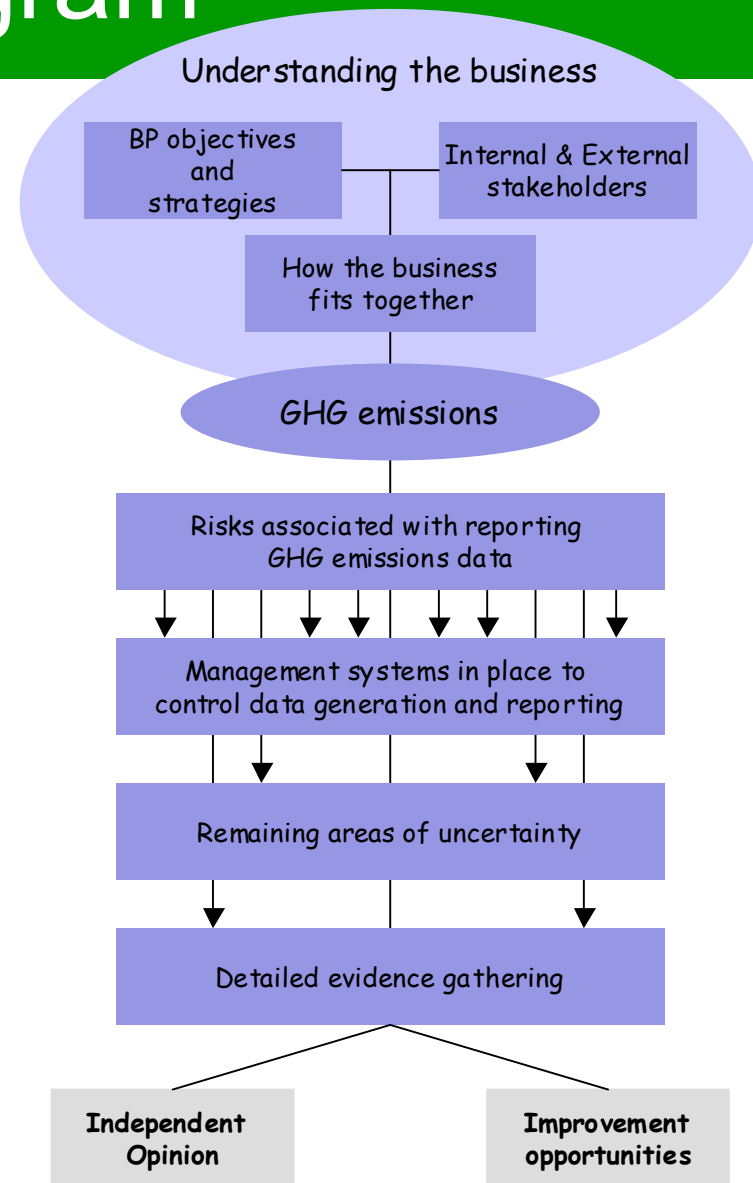
The GHG Audit Project

The Audit Project began in June 1999 and was designed around 4 key stages:

- Scoping and Positioning – Understanding the risks to the GHG emissions data in BP, and reaching a shared view on the project aims
- Evaluate and GHG protocols – Evaluation of BP's GHG protocols and data collection systems against international standards and industry norms
- Develop Audit Process – Developing the procedures and tools to be used by the GHG auditors to carry out the audits
- Audit of the 1990 and 1998 data – Detailed audits for a selection of BU's representing all business streams and geographic regions.

audit verification program

- builds on international standards for financial & environmental auditing
- risk based audit approach
- draws on understanding of risks with reporting GHG data
- material misstatement (error) if:
 - >0.1% of Group emissions
 - >5% of BU/site emissions
 - BP overall has to be <5%
- full site audits and LSRs

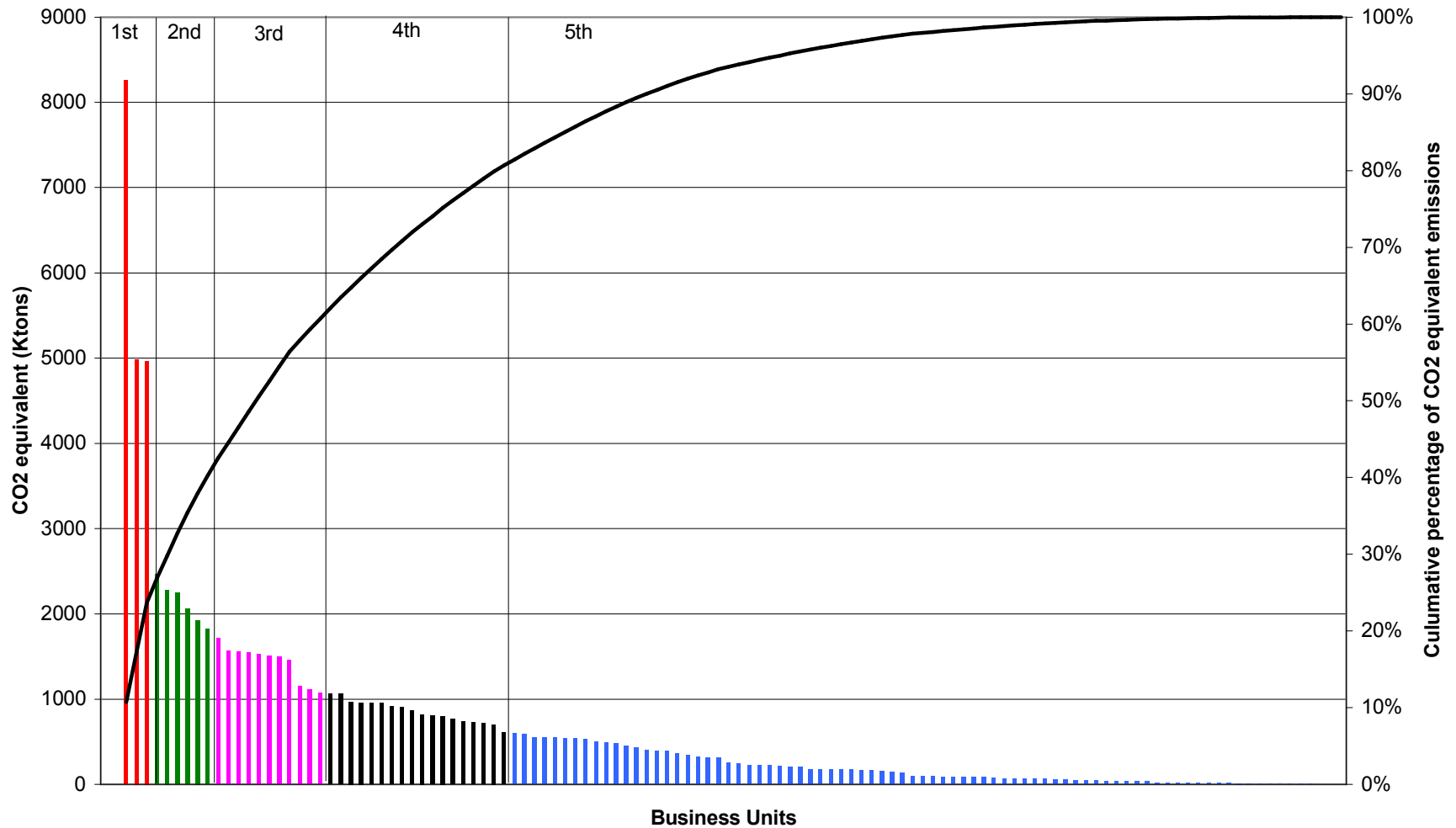


Financial Audit Framework

A financial audit framework has been applied to this GHG audit process. It provides a high, but not absolute, level of assurance that the information subject to audit is free of material misstatement. The following assertions define this framework and are necessary to support the audit opinion:

- **completeness**: all significant sources are recorded, disclosed, classified and described in accordance with the applicable reporting guidelines (i.e.. BP's Group Reporting Guidelines);
- **accuracy**: the CO₂ and CH₄ figures are recorded (through measurement, calculation, estimation), processed (e.g. into spreadsheets, information systems), reported and aggregated accurately;
- **comparability**: measurements, calculations and estimations have been based on acceptable assumptions, taking into consideration differences in scope, determination methods, site/process changes and any other relevant factors.

CO2 equivalent emissions from BP Business Units, 1998



GHG Information Risk/Control Matrix



full site audit – what it means strategic analysis

- Site overview
 - understand the process
 - identify emission sources
 - identify relevant personnel
 - data providers/estimators/compilers/checkers
 - management review/challenge/sign-off
- Group reconciliation
 - document version control
 - Sunbury is the holder of the Group GHG inventory

full site audit – what it means

process analysis

- Reliability
 - Conformance with Reporting Guidelines
 - Calculation methods
 - Supporting documentation
- Risks
 - Manual transfer of data/calculations
 - Unclear origins of data
- Controls
 - Procedures in place
 - Competence/training of personnel

full site audit – what it means

process analysis - risk areas

- **Completeness**
 - source coverage
 - scope/boundaries
- **Accuracy**
 - GHG measurement
 - Data calculations
 - Data management and reporting
 - Equity share calculation
- **Comparability**

full site audit – what it means testing and reporting

- Quantify risks identified for further testing
 - categorise; H, M, L, NA, U or blank
 - estimate error in tonnes
- Movements review
 - reasons for change
 - on year to date
 - on year end forecast
- Complete scorecard

H High Priority	Could result in a material misstatement of group reported emissions. Materiality threshold is 0.1% of group emissions
M Medium	Could result in a material misstatement of Business Unit emissions. Materiality threshold is 5% of BU emissions
L Low Priority	Could result in a minor misstatement of Business Unit reported emissions. (I.e. less than 5%).

Selection criteria for full audits, 1990 and 1998

BUs were selected for audit through a process that reflected the range of recognized reporting risks and also the range of issues which may influence reporting in a geographically and operationally diverse organization such as BP

- Major emitters of GHGs
- The business streams
- BUs where there is less confidence in the data
- Former BP and Amoco facilities
- Operated and non-operated facilities
- Wholly owned and shared facilities
- Geographic spread of BP's operations

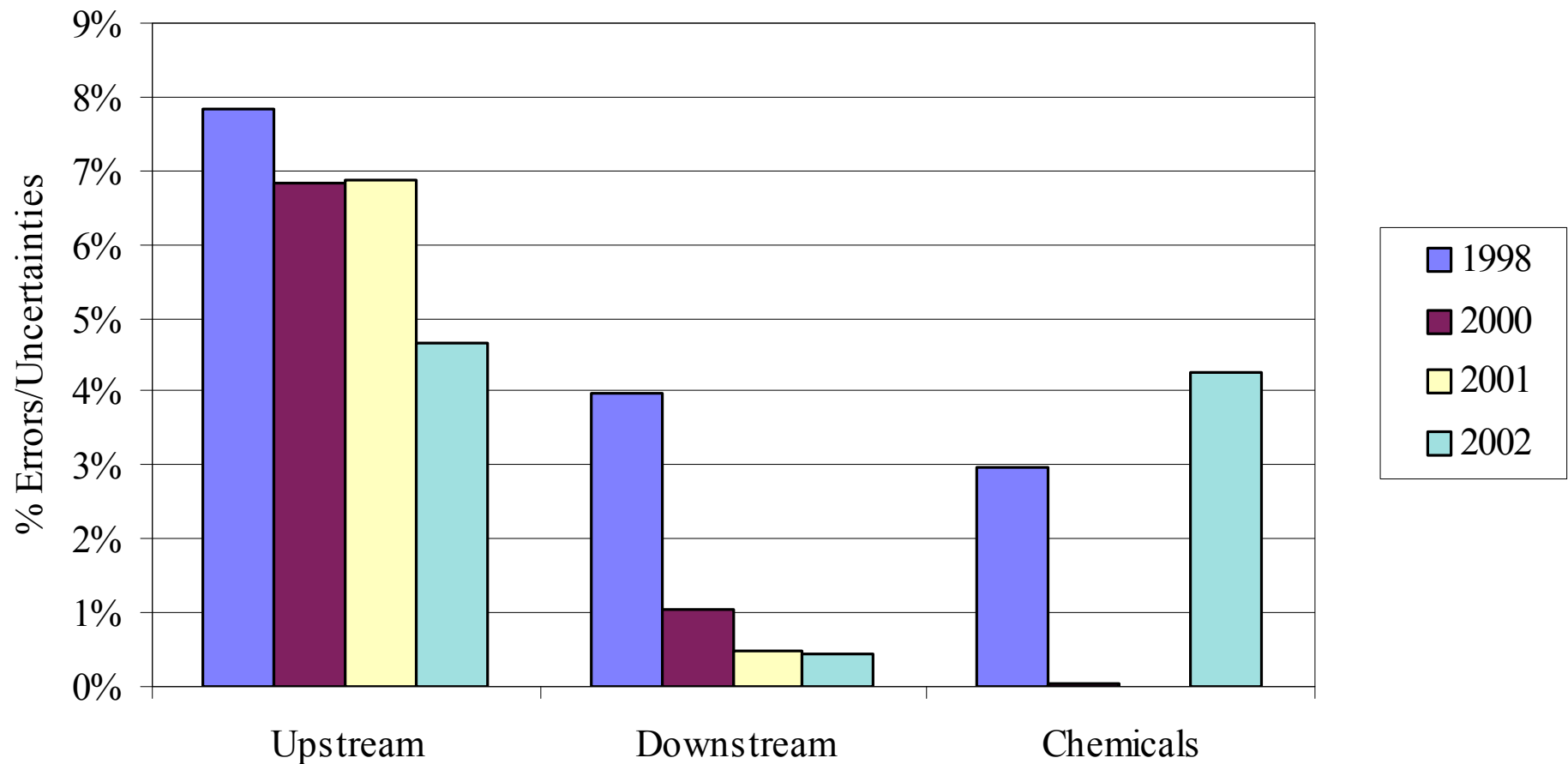
Audit findings (1990 and 1998)

- The audit process focused on assessing compliance with the BP GHG reporting guidelines and providing assurance in reporting without material misstatement.
- The combined error for all audited sites was estimated to be around 10-15% for 1998 and 15-20% for 1990.
- The first round of audits identified several improvement opportunities to the GHG protocol, that would eradicate many sources of inconsistency through clearer definitions and improved guidance to business units

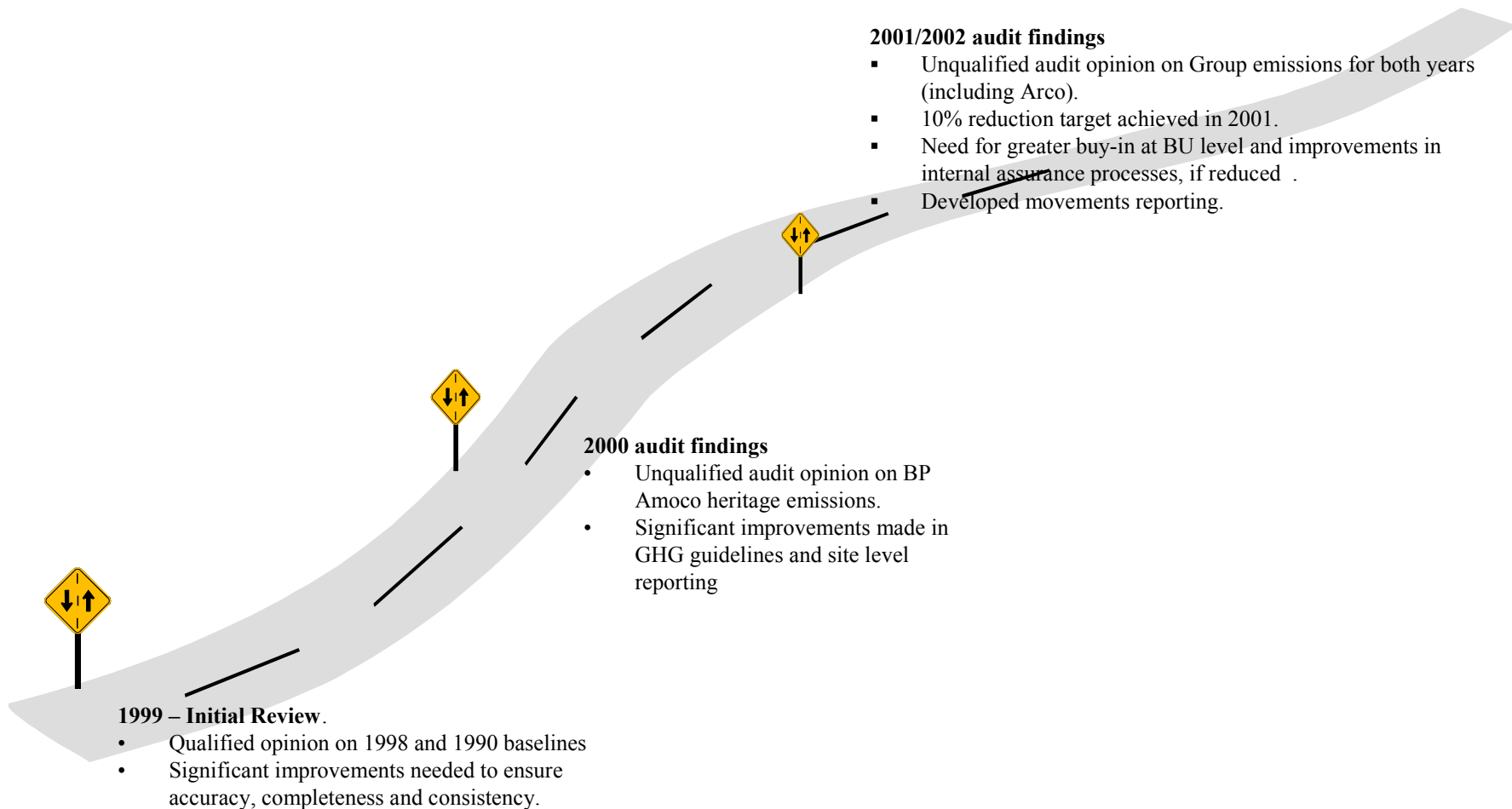
Improvement opportunities identified in the 1990 and 1998 audit

- Group Reporting Guidelines
 - Methane guidance
 - Equity share
 - Boundary definitions
 - Source coverage
- Data Management
 - Documentation of procedures and assumptions
 - Documentation of data controls and flow
 - Incorporate in to ISO 14,001 EMS
 - Greater internal peer and management review
 - Work towards automating the calculation system

Year on year comparison of remaining GHG data uncertainty



GHG audit: road forward



BP's "Stanford 2" GHG commitment

...to hold the emissions from our operations at 10% below 1990 levels, through 2012, with approximately half coming improvements in internal energy efficiency, and half from the use of market mechanisms, generating carbon credits.”

Lord Browne, 11 March 2002