



LEADERS IN ENVIRONMENTAL ACCOUNTING

# CAPABILITY STATEMENT





**A WORLD-LEADING ENVIRONMENTAL ACCOUNTING SOLUTION.**

Report with ease  
Remove audit headaches  
Increase internal efficiencies  
De-risk business  
Realise potential

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# WHAT IS ENVIRONMENTAL ACCOUNTING?

## WHERE ACCOUNTING AND SCIENCE INTERSECT

Environmental accounting adopts financial accounting principles and best practices, and applies these, along with scientific methods and deep regulatory knowledge, to:

- establish the efficient and accurate collection and recording of non-financial data;
- facilitate the production of audit-ready reports, always; and
- produce meaningful data sets and value-adding analyses for strategic business planning and optimisation.

## THE INCREASING EMPHASIS ON NON-FINANCIAL RISK REQUIRES A NEW APPROACH

Understanding how environmental factors can affect a business has become crucial for operational efficiency, capital and growth.

As environmental compliance reporting continues to increase in complexity and magnitude, generic EHS systems and spreadsheets are not effective solutions for the assurance and audit-readiness that is now required.

Non-financial data now requires the same rigor as financial data – this is the environmental accounting approach.

Establishing a best practice environmental accounting process and system is daunting. The regulatory landscape is dynamic, methodologies are complex and creating effective management processes can be a lengthy process of trial and error.

**WE HAVE INVESTED THIS TIME SO YOU DON'T HAVE TO.**

ACCOUNTING  
+ SCIENTIFIC METHODOLOGY  
+ REGULATORY UNDERSTANDING

# A WORLD-LEADING ENVIRONMENTAL ACCOUNTING SOLUTION

## WHY GREENBASE?

The Greenbase environmental accounting system is unique in that it integrates document management, communication and workflow management, reporting processes and standards management, all in the one system - with a complete audit trail.

It empowers companies to go beyond compliance to improved productivity, lower costs and environmental stewardship.

### PROVEN SOLUTION

Our world-leading system is used across the mining, energy and construction sectors to manage non-financial accounting and reporting.

Many of our clients have reported a clear return on their investment in our service and system by way of reduced costs from external audit and assurance services and reduced time from internal resources - without even quantifying the value-adds.

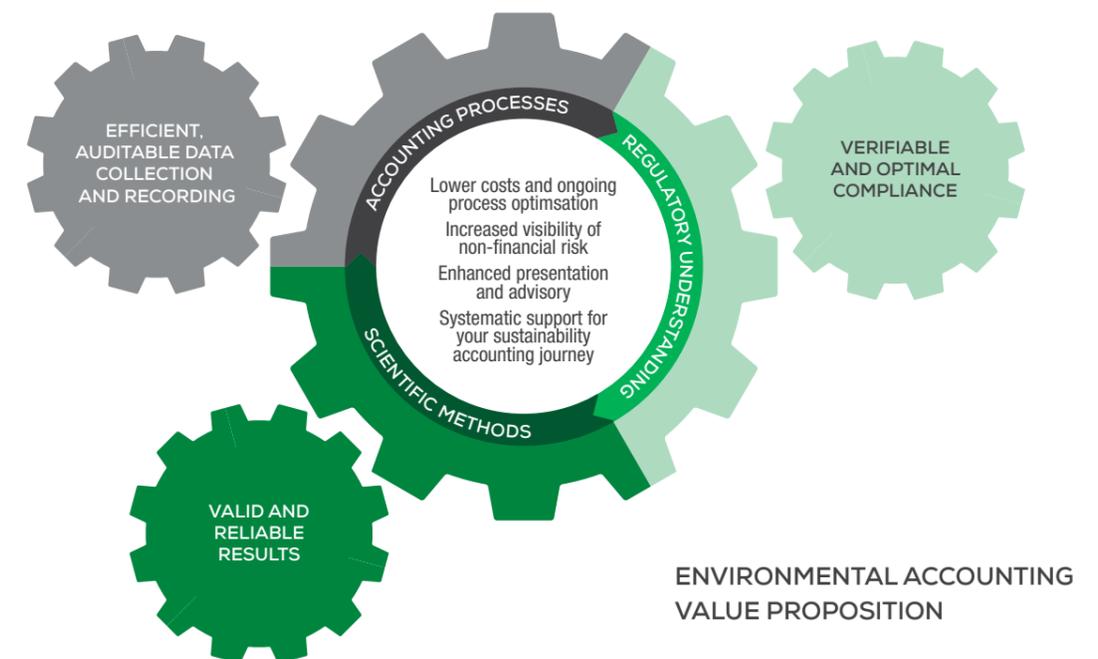
### AUDIT-READY REPORTS, ALWAYS

Our system enables the efficient and accurate collection and storage of data, and the production of reliable and auditable statutory environmental and sustainability reports.

Disclosure demands from multiple stakeholders with conflicting reporting boundaries, methodologies and objectives can make reporting overwhelming. We guarantee to remove reporting and audit headaches.

### BUSINESS OPTIMISATION

Clear competitive advantages can be gained from determining and understanding the links between a company's operations, environmental footprint and profits. Using this information strategically can optimise operations, business planning and decision making.



## ABOUT GREENBASE

### LEADERS IN ENVIRONMENTAL ACCOUNTING

We provide an industry-leading capability underpinned by an advanced, fully integrated data management and reporting system, highly experienced teams, and efficient, quality-based processes.

Established in 1996, Greenbase has been providing environmental accounting services since the enactment of the Australian Federal National Environment Protection Measure in 1998.

Since then, our proprietary environmental accounting platform and process has grown to become a world-leading system synonymous with best practice.

We have delivered over 3,500 reports to regulators in all states and territories of Australia and provide an annual reporting service to over 200 of Australia's largest industrial and infrastructure facilities. Our platform is used on an ongoing basis by more than 70 of the largest Australian and international companies, and we provide advisory services internationally.

INDUSTRY-LEADING CAPABILITY  
FULLY INTEGRATED, EFFICIENT SYSTEM  
HIGHLY EXPERIENCED TEAMS

## OUR CLIENTS

We build trusted relationships through our transparent, collaborative and cost-effective approach and our track record of delivering reliable reporting and value-adding analysis and advisory services.

We work with complex, process driven, resource and energy intensive companies that are required to submit standardised reports under national and international regulation.

#### Industries we serve include:

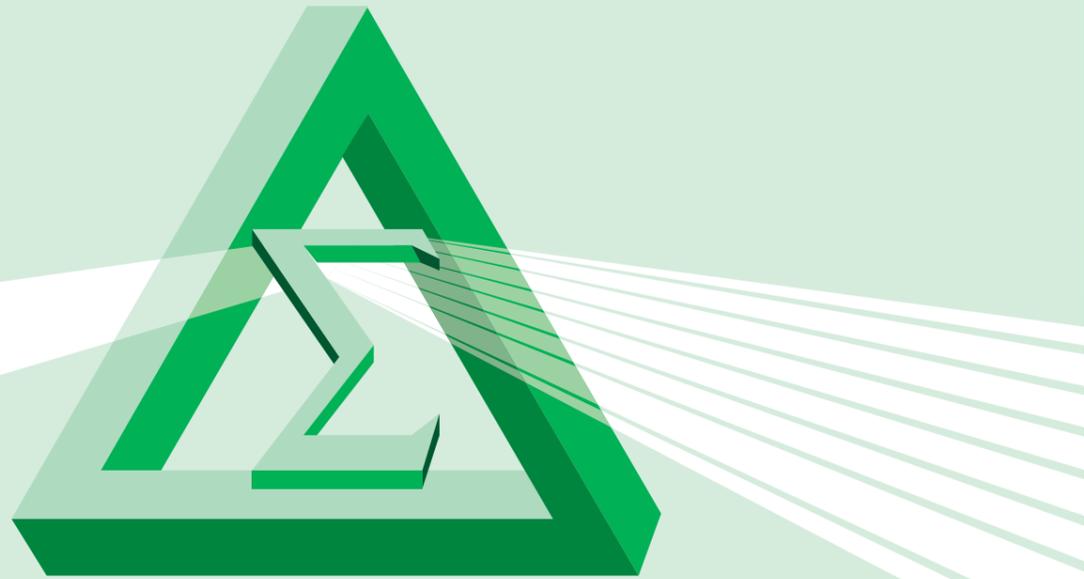
- oil and gas;
- mining and civil;
- infrastructure and power generation;
- manufacturing; and
- shipping and ports.

## OUR PEOPLE

With a combined 120 years of environmental accounting experience, and qualifications spanning both accounting and the sciences, the Greenbase team has the skills and expertise to deliver a value-adding environmental accounting service.

#### Staff qualifications and disciplines include:

- chemical engineering;
- civil engineering;
- mining engineering;
- environmental engineering;
- environmental management;
- environmental economics;
- computer science;
- marine science;
- physics;
- biology;
- hydrography;
- educational studies; and
- various business and management disciplines.



ONE SYSTEM. FULL CONTROL.

## ONE INTEGRATED PLATFORM

### A SINGLE SOLUTION

The Greenbase approach applies specific principles to how data is collected, stored and used – principles which set the foundations for the development of our world-leading accounting and reporting platform.

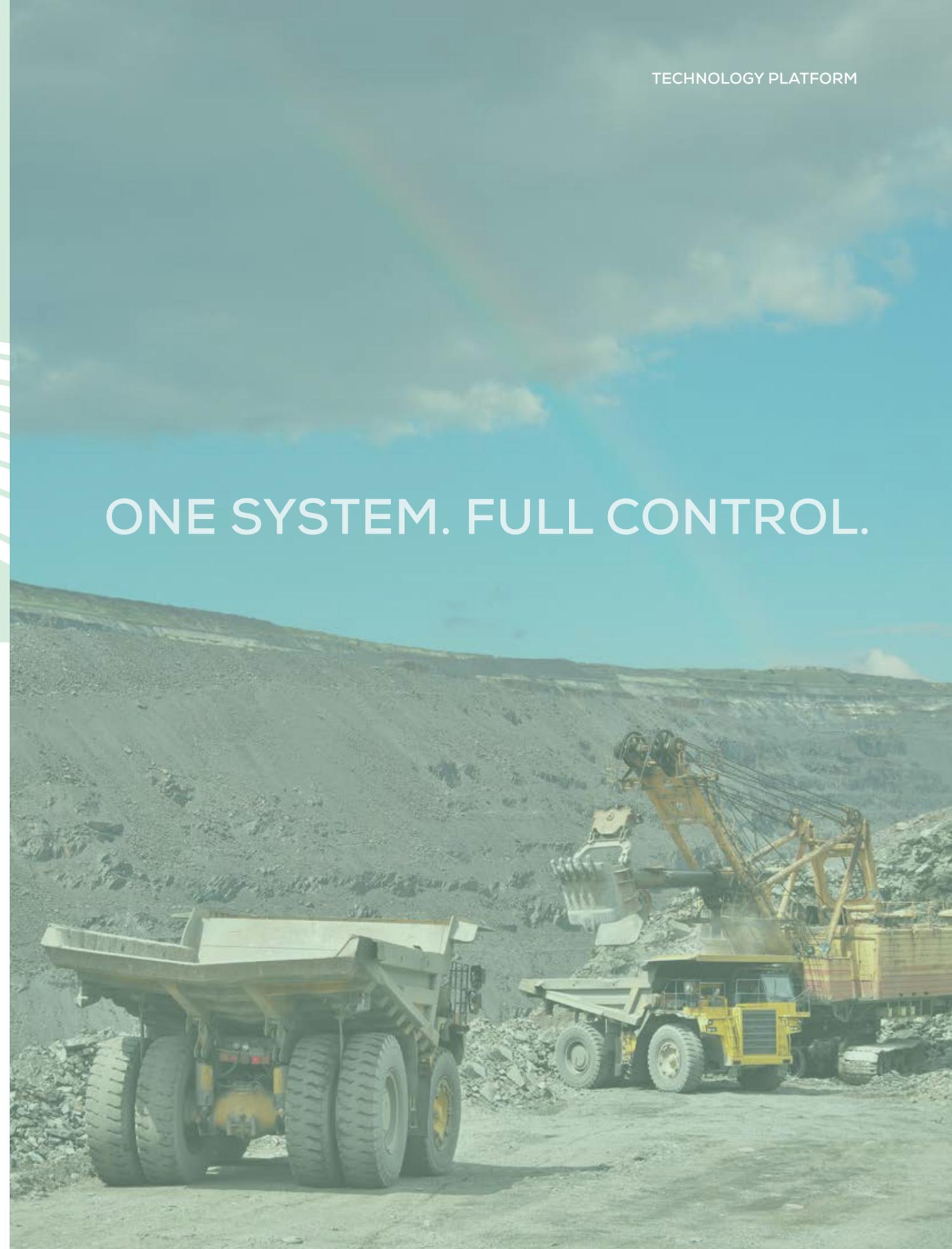
This approach has proven to deliver efficiencies, accuracy and meaningful analysis throughout the accounting lifecycle by:

- aligning reporting frameworks;
- using the COUNT process (Collect/input Once, Use Numerous Times) and prism model for data collection, entry and reporting;
- automating scheduling to fit reporting cycles; and
- providing document management tools for complete data tracking.

These core principles have been applied to our single, flexible environmental accounting platform – IGAN – to ensure each environmental accounting report is traceable to the source information we receive from our clients, guaranteeing **audit-ready reports, always.**

The Greenbase platform can be deployed end to end or integrated into clients' processes where it makes sense to do so. Training of clients' environmental accounting teams or their existing accounting support partners can be undertaken to achieve the optimal solution.

EFFICIENT  
TIMELY  
AUDIT-READY



# IGAN

## FULL CONTROL

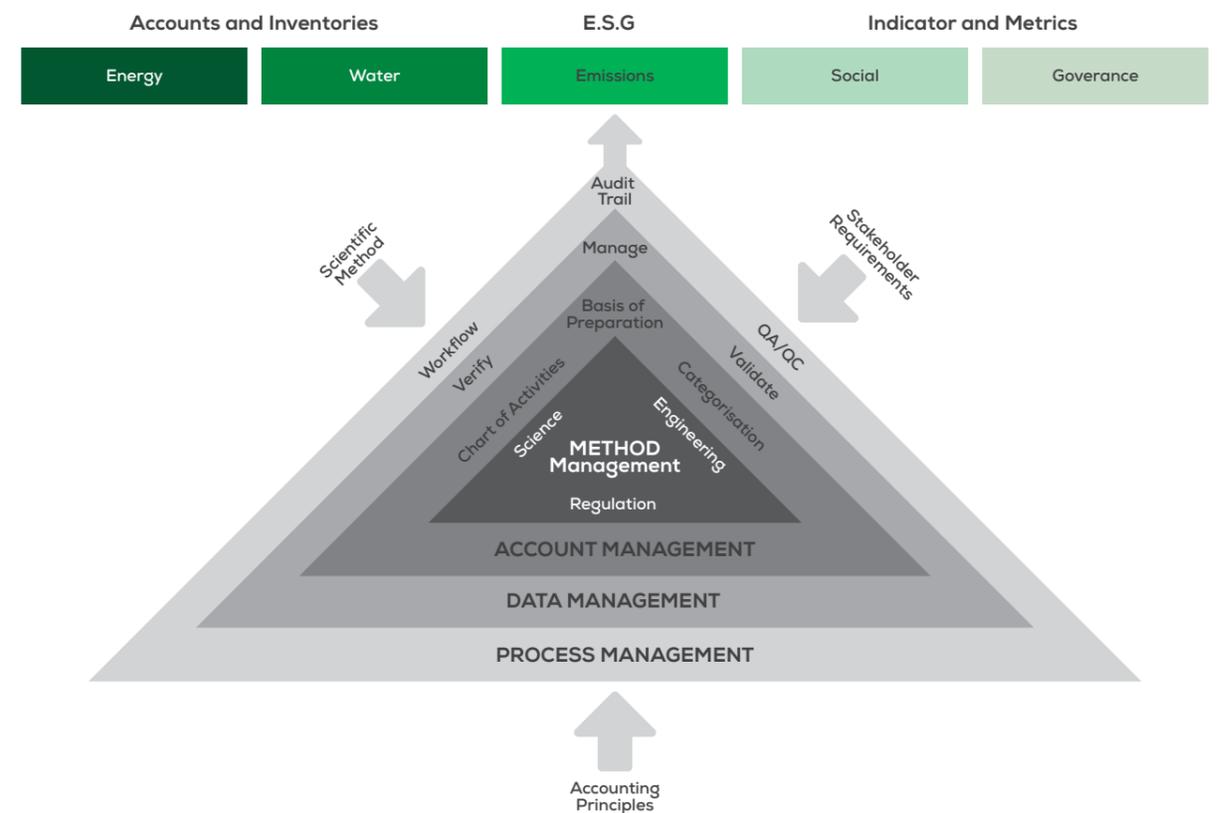
IGAN is Greenbase's propriety, world-leading environmental accounting software platform for the reporting and recording of all GRI indicators including social, governance, safety and environmental.

- NO MORE SPREADSHEETS
- NO INCONSISTENT AND VARYING DATA SETS
- NO LOST DATA
- NO AUDIT HEADACHES

The system integrates:

- all data streams and calculation methods relating to the recording and reporting of environmental indicators;
- compliance reporting processes and standards using GIMS - the Greenbase Index of Methods and Standards (which currently covers over 8,000 industrial activities across more than 50 sectors);
- document management tools;
- communication and workflow management tools; and
- a highly customisable accounting and report framework generator.

IGAN delivers accurate and efficient data management, and flexible, timely, cost-efficient reporting that is audit-ready, all the time.



## IGAN CAPABILITIES

### DATA MANAGEMENT

The IGAN database is specifically structured to cope with non-financial data types including spatial, meteorological, continuous meter readings, water samples, geological assays, stack tests and their associated uncertainties.

Using our COUNT process and prism model, data is collected and input only once, streamlining data collection and reporting processes.

### FRAMEWORK AND CUSTOMISATION

With more than 1,700 methods and 8,000 activity templates, Greenbase can provide a comprehensive environmental accounting framework that easily encompasses most industrial processes within most industries.

The same way a financial accountant can configure a customised chart of accounts and generate reports like a P&L or balance sheet, IGAN can achieve the same for non-financial data.

### ANALYSIS AND BUSINESS OPTIMISATION

IGAN provides the ability to drill down and pin-point emissions by source, compare the changes year on year and quickly identify the reasons for change. It enables meaningful data analysis and evaluation to reduce risk, optimise business planning, identify business development opportunities and maximise investment.

### REPORTING

Every time a manual is released that relates to one or more of our clients, we download it, dissect it and work out what matters and what doesn't. We then produce a set of registered methods in IGAN, to ascertain what pollution is created, what data is required and how to calculate it.

IGAN works at the transactional level to provide the same benefits as a financial accounting system, i.e. multiple reports, to multiple audiences, with different boundaries and methods - all from the same, consistent underlying data.

No matter who the audience or what the requirement, reports can be created in real time, on demand from the same set of data.

This is particularly advantageous when co-generating NPI and NGER reports and extending to CSR reporting aligned with ASX and other stock exchange regulations. It's guaranteed to deliver tangible operational efficiencies - saving clients time and money.

All data is fully traceable to the source meaning reports are always audit-ready.

## CORE SERVICES

### ACCOUNTING AND REPORTING CAPABILITIES

We have invested thousands of hours in developing a reporting process that ensures that each reporting step receives exactly the right amount of scrutiny, validation, verification and review to deliver on our mandate 'audit ready reports, always'.

TYPE OF ACCOUNTING AND REPORTING	RISK AREA	COMMON REPORTING FRAMEWORKS
Corporate Sustainability Reporting	All non-financial risk	GRI, SASB, CDP and others
Inventory Accounting	Pollutants, toxics, GHG, water, energy	NPI, NPRI, PRTR, TRI, IPCC, GHG, WAF, CDP
Baseline Analysis and Forecasting	Any outcomes based regulation	EEO, ERF, NOPSEMA and others
Operational Licence and Permitting Reporting	Environmental	AER, MARP, IPPC, Title V and others
Liability Accounting and Reporting	Closure/remediation/rehab	MRF and others

### INTEGRATED CAPABILITIES

STEP	EXAMPLES OF SERVICE CAPABILITIES (NOT EXHAUSTIVE)
Identify	Reporting obligations gap analysis, industry activity triggers
Analyse	Documentation of inclusions and exclusions, boundaries, methods, thresholds, (BOP) (FDOCD)
Plan and Design	Data requirements schedule, measurement regime definitions, verification and validation regime definitions, process and procedure documentation, customisations and method development
Implement	Project management, data management services, process management services, document management services, reconciliation services, training and regulator assistance
Review	Year on year, KPI's, industry benchmark, legislation and regulation updates and audit support
Enhance	Process optimisation & technology deployment, new method development

# CORE SERVICES

## EXTENDED CAPABILITIES

KNOWLEDGE AREA	APPLIED TO
Chemical Engineering	Plant energy balance, HYSYS, aspen plus and Matlab stack test analysis
Water	Land and groundwater contamination, data management for estuarine, lake and wetlands, water balance modelling, infrastructure asset and risk management, hydrography and others
Mining Engineering	Process substitution i.e. emissions reductions, continuous vs truck and shovel, drill and blast planning, legislation, 3D modelling, (Datamine, Surpac, Vulcan), operations and optimisation (whittle) and production planning
Metallurgy	Mill accounting, metallurgy accounting, plant optimisation
Environmental Science	EIA ERA, EMP, GIS mapping, Arc GIS, SAS, SPSS, Air emissions surveys
Quality/Process/Risk/Audit	ISO 9000 , 14000, 26000, 31000, OHSAS18000, AA1000
Marine Science	Port emission inventories, vessel sustainability data, NOPSEMA, data management for seabed ecology, plankton taxonomy, population genetics
Civil Engineering	Infrastructure risk assessment, design and modelling
Environmental Economics	NEBA, LCA, JCP-emissions intensive trade exposed, carbon pricing
Data Management and Informatics	Data collection and management strategy development, data analytics services (big data), data analysis help desk analytics, design, data analysis training software model development, software model auditing and testing database migration
Software Development	In addition to Igan, Greenbase have developed Aquascape for water balance, irrigation asset management systems, water cooperative business system and water entitlement management systems for six regional utilities. Greenbase has also provided IT advice for legislative and policy development
Accounting	Principles, approach, guidelines, tools and techniques

# INTERNATIONAL CAPABILITIES

## PARTNER NETWORK

The Greenbase environmental reporting and advisory service network spans the globe. Through our partner network and centralised platform we combine IGAN capabilities with on-the-ground service, and local market and regulatory expertise.

Many of our clients have international operations and subsidiaries. We recognise that these operations each have their own unique stakeholder audiences and regulatory reporting requirements which require customised accounting and reporting frameworks.

### SPECIALIST LOCAL PARTNERS

To meet these specific regional needs, we partner with specialists in non-financial reporting around the world, leveraging their local market and regulatory expertise to deliver regional capabilities via customised IGAN platforms backed by the quality of service our clients expect of Greenbase.

Through our partners, we provide the necessary processes and support to ensure the regional requirements of our clients are met and a successful and commercial result is delivered.



- Australia, APAC, South Africa, Zambia, Ivory Coast, Ghana: Greenbase
- Americas: Process Ecology (Oil & Gas) - Powered by Greenbase
- Partners sought



## SERVICE OPTIONS

### CUSTOMISED OFFERING

**Our service and pricing is tailored to clients' needs.**

#### OUTCOMES-BASED SERVICE

Our outcomes-based service quotes a fixed price for the deliverable. This may be a submission of a report or a set of accounts.

#### PLATFORM-BASED SERVICE

Like our outcomes-based service, the use of our software is also based on a defined deliverable and is "pay per use" not a subscription or licence model.

We can tailor our service as your capabilities and capacities require. If the benefit is there, we can train your staff to use IGAN, which can be accessed on a pay per use basis.

## THE PREFERRED ENVIRONMENTAL REPORTING SERVICE PROVIDER

### ENVIRONMENTAL REPORTING HAS ONE CONSTANT – CONTINUAL CHANGE

**At Greenbase, we stay on track of changes in every region in which we operate. We digest and dissect change, and work out what matters and what doesn't. We then react and produce recommendations and solutions accordingly.**

We constantly innovate and continually invest in our capacity and capability to deliver a global industry-leading technology platform.

We build trusted relationships with our clients through our transparency, collaborative approach, and timely and reliable reporting.

#### CERTIFIED SPECIALISTS

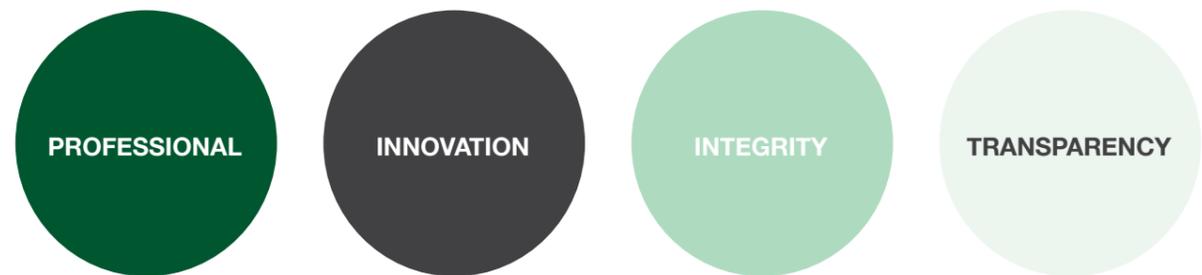
Your Greenbase account lead is not only an environmental accountant, but a certified audit lead in integrated business management systems (AL-IBMS).

Each project lead is well positioned to advise on the integration and optimisation of environmental accounting data to and from any ISO 9000 (QMS), 14000(EMS), 18000(OHS) or other business management system.

# THE GREENBASE WAY

## OUR VALUES

Founded on our values, the Greenbase Way captures the way we work, communicate and deliver. Our values guide the way we make decisions and is integral to the way we do business.



### PROFESSIONALISM

- We leverage our experience and specialist skills to ensure results are consistent, comparable and objective.
- We are reliable and accurate, delivering reports on time and on budget.

### INNOVATION

- We protect our reputation for high standards and high quality reporting by constantly improving.
- We are progressive in the way we work and the systems and processes we develop.

### INTEGRITY

- We partner with our clients and work collaboratively to deliver on what we promise.
- Our clients own their data – to the end.

### TRANSPARENCY

- Our processes and systems have been developed to deliver audit-ready reports.
- We use our integrated document management system to ensure each environmental accounting report is traceable to the source information we receive from the client.



# GLOSSARY OF TERMS

<b>AA 1000</b>	AccountAbility's AA1000 series are principles-based standards to help organisations become more accountable, responsible and sustainable
<b>AER</b>	Annual Environmental Report
<b>BOP</b>	Basis of Preparation
<b>CDP</b>	Carbon Disclosure Project works with over 550 major corporations
<b>EEO</b>	Energy Efficiency Opportunities program using substitution and Innovation
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Plan
<b>EPC</b>	Engineering, Procurement, Construction
<b>ERA</b>	Environmental Risk Assessment
<b>ERF</b>	Emissions Reduction Fund - a voluntary scheme that provides incentives for organisations to adopt new practices and technologies to reduce their emissions
<b>FDOCD</b>	Facility Delineation and Operational Control Document - Defining the Reporting Entity
<b>GHG</b>	Greenhouse Gas
<b>GIS</b>	Geographic Information System - designed for all types of spatial or geographical data
<b>GRI</b>	Global Reporting Initiative - an international standards body that helps businesses understand and communicate their impacts on issues such as climate change, human rights and corruption
<b>IPCC</b>	Intergovernmental Panel on Climate Change - assesses the scientific, technical and socio-economic information to help understand the risk of human-induced climate change
<b>ICMM</b>	The International Council on Mining and Metals (ICMM) was founded in 2001 to improve sustainable development performance in the mining and metals industry.
<b>ISO</b>	International Organisation for Standardisation
<b>ISO 9000</b>	A set of standards for quality management and quality assurance

<b>ISO 14000</b>	A set of standards to help manage environmental responsibilities
<b>ISO 26000</b>	A set of standards to help businesses operate in a socially responsible way
<b>ISO 31000</b>	A set of standards relating to risk management
<b>JCP</b>	Jobs and Competitive Program, links to the Emissions Intensive Trade Exposed Program
<b>LCA</b>	Life-cycle Assessment - Total Environmental Impact from cradle to grave
<b>MCP</b>	Mine Closure Plan
<b>MRF</b>	Mining Rehabilitation Fund
<b>NEBA</b>	Net Environmental Benefit Analysis
<b>NGER</b>	The National Greenhouse and Energy Reporting scheme, established by the National Greenhouse and Energy Reporting Act 2007 is a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified under NGER legislation
<b>NPI</b>	National Pollutant Inventory Australia's - legislated, publicly accessible inventory of pollutant releases and emissions (to air, water and land) (a PRTR)
<b>NOPSEMA</b>	National Offshore Petroleum Safety and Environmental Management Authority
<b>NPRI</b>	National Pollutant Release Inventory - Canada's legislated, publicly accessible inventory of pollutant releases (to air, water and land), disposals and transfers for recycling (a PRTR)
<b>OHSAS 18000</b>	An international occupational health and safety management system specification
<b>PRTR</b>	Pollutant Release and Transfer Register (in place in over 50 countries)
<b>SASB</b>	The Sustainability Accounting Standards Board was created to make selected sustainability reporting indicators comparable mainly for the Capital Markets.
<b>Title V</b>	Title V of the Clean Air Act in the USA requires major sources of air pollutants, and certain other sources, to obtain and operate in compliance with an operating permit
<b>TRI</b>	Toxics Release Inventory the USA's legislated, publicly accessible inventory of pollutant releases (to air, water and land) (a PRTR)
<b>WAF</b>	Water Accounting Framework from the Minerals Council Australia



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RELIABLE  
EFFICIENT  
AUDIT-READY