



ERIC RESOURCE APPLICATIONS

Environmental Research &
Information Consortium Pty Ltd
(ABN) ACN (81) 055 194 771
PO Box 132 Braidwood 2622
Ph 02 4842 8182
Fax 02 4842 8183
info@eric.com.au
www.eric.com.au

Company Capability

Environmental Research & Information

Consortium Pty Ltd (ERIC) is an environmental consulting business formed in February 1992 to provide research, development and application of spatial information in natural resource management and enterprise development. ERIC develops map products on natural resources and integrates these with spatial information on infrastructure and social resources to provide intelligence to improve business and environmental outcomes.

New information developed from remotely sensed images and ground data includes map products on vegetation, soils, climate and land use. These can provide paddock level detail at regional scales. These baseline map products underpin environmental and business services involving resource assessment and monitoring, decision support, and reporting. The scope ranges from State wide assessments of land clearing and salinity to the provision of comprehensive information on individual landholdings. The information is used to maximise business opportunities, profitability and environmental sustainability.

ERIC products and services include the use of microbial formulations to address production and environmental issues for industry. The formulations combine populations of microbes with substrates appropriate for applications such as restoring plant and soil health, productively utilising organic wastes and waste water.

The microbial formulations provide farmers & industry with a cost effective and environmentally sustainable means of

improving production. Core applications addressed by the balanced formulations are:

- Soil conditioning
- Fertilisation and plant protection
- Water conditioning (ponds, dams)
- Composting
- Livestock probiotics

The ERIC technology provides cost-effective solutions to business and environmental issues with end to end solutions to improve the client's capability to plan and manage resources. The comprehensive range of products allows clients to tailor the ERIC products and services to address their specific needs.

Application of modern technologies provides significant benefits to clients additional to cost-effectiveness. The use of microbes provides a profitable means of sustainably achieving production and environmental outcomes. Numerical analysis of digital data in resource assessment improves in the quality and reliability of the resource information. The improved intelligence on the nature and distribution of resources such as vegetation, surficial hydrology, soils and salinity identifies new opportunities, reduces risk, and addresses compliance.

Company experience covers land and water management, rural and regional development, periurban and urban development, property assessment, state and national resource mapping. Issues addressed include compliance, impact assessment, and enterprise and regional development. Disciplines encompassed include climate, ecology, surficial hydrology, soils and vegetation.

ERIC clients range from individual property owners and community groups through small and large corporations to all levels of government. Clients extend throughout Asia, the Pacific and Europe.

The ERIC web site provides capability statements for key applications, and background research papers to the technologies and their applications.

Domain Expertise

ERIC scientists have specialist expertise in resource planning, community consultation, ecology, soil and vegetation mapping, hydrology, salinity, and environmental impact assessment. Consortium members complement and reinforce this capacity. Social and economic analysis can be combined with natural resource assessment. The ERIC expertise leads in soil and salinity mapping.

Strategic Alliances

ERIC forms strategic alliances with other companies to promote development and service delivery. Examples include working with Sustainability Science Team and Zero Waste Australia (ZWA) on a new initiative, Healthy Soils Australia (HSA). HSA has been established to provide an efficient means of achieving the ZWA objectives by providing an integrated industry capability to improve production and environmental outcomes with rural land use.

Data Integration

ERIC has specialist expertise in the development of spatially based information on natural resources, including numerical analysis of remotely sensed imagery, its integration in GIS, and application in management through plans and GIS. New and existing information is integrated to provide the intelligence required for planning and management. The spatial information provides the foundation for the development of effective policy and plans, management solutions, and the monitoring and reporting of performance. Data integration and analysis turn information into business intelligence.

Planning and Assessment

ERIC personnel have a strong planning background, both strategic and implementation. The strategic component is represented by the development of a Generic Environmental Management Methodology (GEMM[®]) that integrates spatial information on natural and developed resources into the management cycle.

ERIC personnel have extensive experience in impact assessment having prepared and reviewed all levels of reports. This includes production of EIS, notices of intention, management plans, advice on the application of developing technologies and review of reports produced by others. Expert evidence is provided.

Institutional Strengthening and Capacity Building

ERIC develops client capability through the provision of a range of performance oriented products and services. The services include the development of methodologies to address specific applications, incorporation of information in GIS, provision of training and the development of planning documents. Products provide comprehensive spatial information that includes maps of land use, land condition, native vegetation, crops, soils, climate and potential enterprise sites.

Personnel and Environmental Policy

Selection of ERIC personnel is based on expertise and their potential for development. Projects and training are designed to develop the capabilities personnel to better meet the needs of client businesses, authorities and community groups.

The ERIC activities are directed at improving environmental outcomes. Sustainability lies at the core of all ERIC operations.

Project Management / Quality Assurance

Performance is monitored against time lines with frequent consultation and reporting of progress throughout the project to demonstrate performance. Large projects are staged to allow clients to direct and develop the project.

Quality control is similarly addressed through the assignment of personnel. Independent, in-house review is applied with all projects and PowerPoint presentations are used to communicate results to clients. External review is obtained where desired. ERIC is an endorsed Commonwealth Government supplier and an ACRES licensed distributor of satellite imagery.

Risk Management

ERIC incorporates risk management in all procedures that affect the delivery of outcomes. This includes quality control, project scheduling, financial control, and environmental performance. ERIC has developed a quantitative risk analysis system to allow clients to self-assess performance in environmental risk management.

Research and Development

ERIC undertakes research, development and innovation to produce advanced spatial information products and services. This information addresses climate, vegetation, soils, water and terrain. The ERIC SoilSelect methodology for soil mapping using airborne geophysical data was a finalist in the 1999 Australian Technology Awards and the company is a current Member of the Australian Technology Showcase. The awards include the *Best Emerging Product in Environmental Industries* in the 2001 ACT Research & Development Grants Scheme Awards.

Products and Services

ERIC provides business and environmental solutions through a range of performance-oriented products and services. Products include:

- Vegetation mapping using satellite imagery (native vegetation type and condition, crop type and condition)
- Land use and condition mapping using satellite imagery (fire and fire hazard, floods, land use, infrastructure, soil wetness)
- Soil property mapping at regional and paddock scales using airborne geophysical imagery and ground sampling

- Geochemical mapping & subsurface structure using satellite and airborne imagery
- Landscape and ecological mapping at regional and local scales
- Terrain analysis for water yields and cold air drainage
- Climate surfaces for temperature, rainfall and frost
- Crop type and variety homoclimate analysis

Services include:

- Land-use capability assessment and enterprise site selection
- Strategic planning and policy development
- Management strategies for regional sustainable development ('triple bottom line')
- Environmental impact and risk assessment
- Environmental monitoring, evaluation and reporting
- Groundwater bore location
- Dryland salinity
- Waste water disposal
- Development and support for environmental management systems
- Development and support for spatial data management
- Research and development.
- Expert advice and evidence

Benefits to clients of the ERIC technology include:

- ✓ Higher quality, more reliable resource information
- ✓ Identify business development opportunities
- ✓ More profitable use of resources
- ✓ Cost-effective provision of information and intelligence
- ✓ Improved risk management
- ✓ Improved environmental outcomes

