



Global Trends in Environmental Practice

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The Only Constant is Change

- Environment – Global Trends
- Legislation – Australia and International
- Community Expectations – Protests
- Communications – Instant, visual
- Conflict – water, food, resources, minerals
- Economics – world oil and gas, mineral prices
- Uncertainty in a changing world - Ebola! Wars! Shootings! Civil unrest! Global warming! Droughts! Religious conflict! Computer models! bushfires, floods, cyclones, electrical storms
- Risk – fundamental to everything e.g. mission critical equipment [IT, hospitals, emergency communications, oil well BOPs]





Trends and Expectations

- Gloom and doom
- Climate change
- Prof Jorgen Randers “2052” - OK
- The Anthropocene (Age of Humans)

“We must use our scientific knowledge to forecast environmental change and develop more resilient societies and cultural institutions that can adapt to the changes we can no longer avoid.”

Source: Smithsonian Institution



Corporate Sustainability

Environmental Aspects

Social Aspects

Economic Aspects

Good Governance

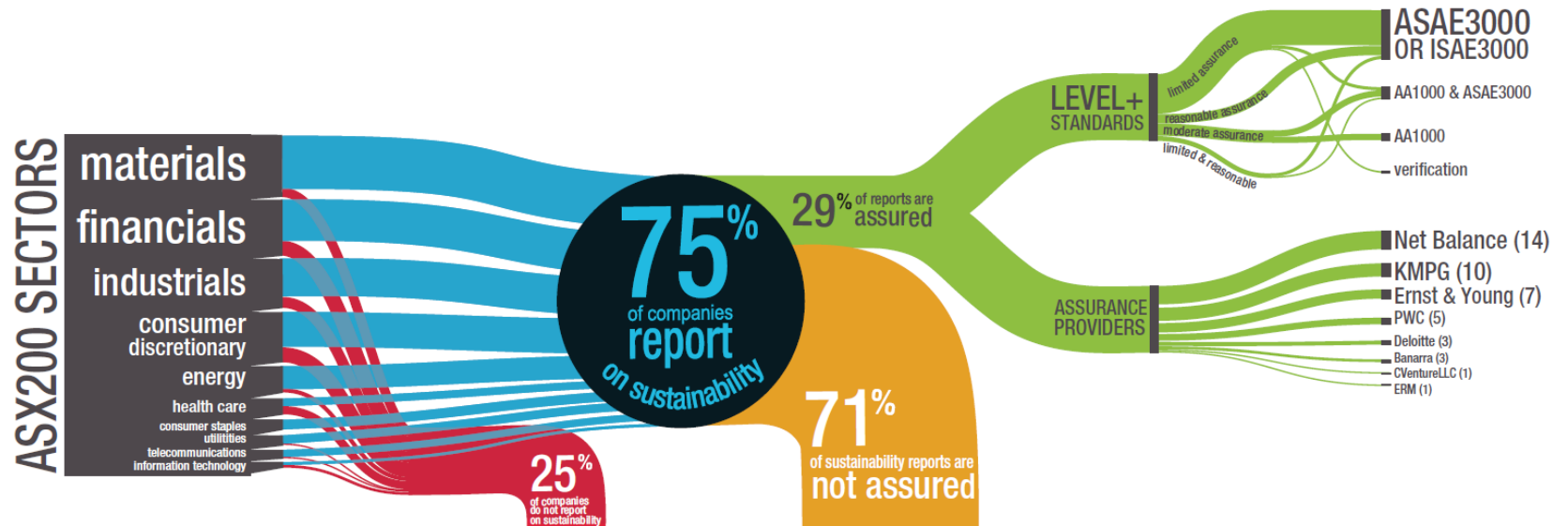


Australian Business

In Australia, the ASX Corporate Governance Principles, Recommendation 7.4, requires from 1 July 2015 “a listed entity to disclose whether it has any material exposure to economic, environmental and social sustainability risks and, if it does, how it manages or intends to manage those risks”.



Sustainability Reporting



Source: *The state of sustainability assurance 2013* - Net Balance



Singapore

- Singapore Exchange (SGX) will be making it mandatory for all listed companies to publish sustainability reports by 2017 or 2018.
- SGX launched voluntary guidelines for sustainability reporting in 2011, take-up by companies has been very slow.
- China, Taiwan, and Malaysia are among some countries in Asia where bourses already require listed companies to publish sustainability reports in some form.

[13 October 2014]



European Business

- A directive requiring approx. 6,000 large companies to report environmental impacts as part of their mainstream annual financial reporting has been adopted in Europe (2014).
- Companies will be required to draw up a statement relating to matters including:
 - environmental
 - social
 - employee-related
 - respect for human rights, and
 - their stance on corruption and bribery.
- Must include a description of
 - policies
 - outcomes, and
 - risks



International Finance Corporation (IFC)

Eight performance standards on **environmental and social sustainability** (1 January 2012):

1. Assessment and Management of Environmental and Social Risks and Impacts
2. Labor and Working Conditions
3. Resource Efficiency and Pollution Prevention
4. Community Health, Safety, and Security
5. Land Acquisition and Involuntary Resettlement
6. Biodiversity Conservation and Sustainable Management of Living Natural Resources
7. Indigenous Peoples
8. Cultural Heritage



Changing Roles

- Brownfield land regeneration
- Environmental impact assessment
- Energy activity (wind farms, energy-from-waste)
- Oil and gas and minerals
- Infrastructure
- Contaminated land (remediation, site investigation)
- Water
- Waste management
- Drought management
- Flood risk
- Environmental security
- Nuclear
- Fracking
- Biogas
- Supply chain management
- Energy management
- Energy auditors
- Resource management
- Climate change
- Climate adaptation
- Compliance management
- Reputational risk
- Training



Changing Roles

- Cross sectoral skills
- International opportunities (worldwide)
- Public
- Private
- Consultancies
- Contractors
- Self employment
- Not-for-profit



Changing Roles

- Example is the trend in Australia, reflecting common practice overseas, to appoint not environmental but EHS personnel – **environment, health and safety**.
- Multinational companies will often not distinguish between the environmental and health and safety disciplines
- Some expand it to include **health, safety, security and environment (HSSE)** or **safety, health, environment and community (SHEC)** – both of these are used in Australia.



Sustainability Practitioner

- Integration of sustainability knowledge and commercial skills
- A mind-set rather than a skillset
- Ability to interpret and apply technical information to different parts of a company
- Facilitator and coordinator
- Ability to understand and engage with stakeholders
- Appreciation of the drivers, barriers and levers that such a role can face
- Change management – business as usual will not work



EMS

Survey of 650 manufacturing companies across a range of sectors in Europe

- Nine in 10 firms have an EMS that is not fit for purpose
- 42% report that senior management have little or no involvement in their current EMS

ISO 14001:2015 will require major changes

- 8 in 10 believe they will not have sufficient top-level support to meet the new requirements
- Only 1 in 10 reported that their EMS takes into account the complete lifecycle of their product or service



Different Generations

A poll of 750 UK graduate trainees, middle managers and MBA students:

- 96% plan on being involved in sustainability activities in their careers.
- more than one-third see creating social and environmental value as one of their ultimate career goals.
- 70% say sustainability offers new business opportunities.
- Just 3% agree that firms are successfully integrating sustainability into their organisations.
- >60% identify companies' unwillingness or inability to invest in sustainable products and services as the main barrier.
- Two-thirds argue that tough economic times should not be used as an excuse to avoid sustainability issues.



Different Generations

Coca-Cola Enterprises with Cranfield University's Doughty Centre for Corporate Responsibility and the Financial Times

Perception of barriers to sustainability:

- 66% of CEOs – external factors, such as government policy and regulation
- 55% of future leaders – internal factors, such as current management attitudes

Perception of social responsibility:

- 86% of CEOs believe that businesses already have a social purpose
- Only 20% of future leaders believe this to be true



Drivers for Investment

PWC survey 2014

- 82% of respondents had considered climate change and/or resource scarcity in future investment decisions.
- 79% took into account social responsibility and/or good citizenship.
- 73% considered risk mitigation was the main reason investors are looking at sustainability.
- 52% considered enhancing performance returns.
- 55% avoided firms with unethical conduct.





Sustainability priorities

McKinsey survey 2014 – 3,300 executives worldwide

- Sustainability priorities:
 - cutting energy use (64%)
 - reducing waste (63%)
 - managing corporate sustainability reputation (59%)
- Too few people in company are accountable for sustainability (34%)



EIANZ steps Map

 Environment Institute of Australia and New Zealand		 Proficiency Matrix for Early Career Environmental Practitioners						
Career Stages		Environmental Proficiencies				Enabling Proficiencies		
		Environmental Awareness	Environmental Ethics	Policy and Planning	Analysis and Risk Assessment	Decision Making	Professional Practice	Communication
		<ul style="list-style-type: none"> • Understands the environmental, political, social, cultural and economic context of their work • Understands and uses the right tools for effective environmental decision making • Understands environmental legislation and compliance measures 	<ul style="list-style-type: none"> • Makes decisions and acts in a professional and ethical way • Gives impartial and forthright advice, justifying their own position when needed • Resolves ethical issues in line with accepted standards and practices 	<ul style="list-style-type: none"> • Uses appropriate environmental policies, systems and frameworks in decision making • Identifies, understands and uses the right tools for effective environmental decision making • Identifies and complies with regulatory and legislative obligations 	<ul style="list-style-type: none"> • Undertakes objective and systematic analysis and draws accurate conclusions based on evidence • Understands and uses environmental impact and risk assessment tools, techniques and methods • Collects, analyses and interprets data effectively • Evaluates data to inform decision making 	<ul style="list-style-type: none"> • Analyses problems and finds effective and targeted solutions • Understands the strategic and organisational context of their work • Can prioritise what is important • Applies sound reasoning and judgement to decision making • Can adapt to change and explore innovative solutions 	<ul style="list-style-type: none"> • Works in a professional way • Understands how to work in and be part of an organisation • Plans and manages work and projects effectively and efficiently • Understands what is expected and delivers what is required • Reflects and learns from the experience of others and from their personal performance • Has the appropriate technical skills to do their job 	<ul style="list-style-type: none"> • Identifies and uses effective and appropriate communication methods • Can identify and engage with stakeholders • Can write well in a range of formats • Understands how to communicate within the reporting and delegation requirements of their organisation
Step 1	Establish – Year 1	Graduate and early career entry. Translates theoretical knowledge into practical applications and seeks to rapidly fast-track technical knowledge. Requires varying levels of supervision depending on the task, but capable of rapidly learning new skills.	DA1 Capable of undertaking a needs and issues analysis in project planning and execution DA2 Can identify and apply the correct environmental management tools for simple environmental projects DA3 Competent in applying routinely used legislation and compliance measures DA4 Demonstrates a plan for addressing personal knowledge and skill gaps	DE1 Demonstrates understanding of the basic principles of environmental ethics standards DE2 Provides examples of routinely applying quality environmental ethics to daily activity DE3 Capable of communicating to management where environmental ethical standards are at risk or can be improved DE4 Understands where to go to seek support or information	PP1 Can explain the correct environmental policy, planning and legislation for simple environmental management projects PP2 Demonstrates examples of contributing to planning, selecting and applying environmental management tools PP3 Demonstrates a network of resources or relationships to access policy, legislation or technical information	AA1 Can identify and plan the application of commonly used environmental impact and assessment tools, techniques and methods for simple projects AA2 Capable of supported execution of simple impact or assessment processes AA3 Demonstrates ability to collect, interpret and apply scientific and statistical data	DM1 Provides advice on routine environmental decisions DM2 Demonstrates strong time management and project management skills DM3 Demonstrates a basic understanding of own decision making and working style and how to maximise that for workplace efficiency DM4 Works to ensure outputs are strategically aligned to organisational goals	NP1 Can explain the structure, vision and strategic goals of their organisation NP2 Implements sound processes for planning and managing projects and self NP3 Is executing a personal development plan for improving technical and enabling skills
	Perform 2-3 years	Competently producing quality work on simple to difficult projects and can readily access an established network of support. Increasingly manages projects with limited supervision and has developed strong understanding of self and modifies approach to situations.	DS1 Can explain their personal processes for how environmental, political, social, cultural or economic contexts are routinely considered in the planning and execution of common environmental projects DS2 Demonstrates how they keep up to date with industry trends, issues and process improvements DS3 Competent in applying routinely used legislation and compliance measures	DE5 Routinely applies quality environmental ethics to daily activity and decision making DE6 Demonstrates examples of applying personal ethical values and to working with management to identify and improve ethical approaches DE7 Shows basic knowledge of leading and influencing change and demonstrated ability to work with managers to influence client environmental ethics	PP4 Capable of independently applying appropriate environmental policy, planning, and legislation to common environmental issues PP5 Demonstrates examples of independently planning, selecting and applying commonly used environmental management tools PP6 Demonstrates a network of resources or relationships to access policy, legislation or technical information	AA4 Demonstrates ability to independently plan and apply commonly used environmental impact and assessment tools, techniques and methods for simple projects AA5 Demonstrates ability to routinely collect, interpret and apply scientific and statistical data AA6 Can explain the benefits and limitations of different environmental assessment processes	DM5 Independently advises on routine environmental decisions DM6 Applies a structured process to consider decisions from a range of points of view DM7 Proficiently plans and manages projects, including self-management	NP4 Provides evidence of how they align their professional approach with the workplace culture and strategic goals of their organisation NP5 Demonstrates success in planning and executing projects to time, budget and resource requirements NP6 Demonstrates structured processes for routinely evaluating work and own performance and self-improvement initiatives
	Improve – 3-4 years	Continuing to refine and enhance knowledge, but competently manages a variety of projects of varying environmental complexity. Entrusted to routinely represent the organisation with stakeholders or clients. Actively applies fresh insight to continuously improve outcomes. Actively seeks feedback for self-improvement.	DS4 Can explain their personal processes for investigating and understanding trends, issues and needs relevant to common environmental projects DS5 Demonstrates experience in contributing to the selection and application of environmental assessment processes and tools for a complex environmental project DS6 Demonstrates evidence in leading continuous improvement in environmental awareness of the organisation	DE8 Can provide examples of where their ethical approach has provided a learning for others DE9 Demonstrates evidence of leading workplace initiatives to uphold environmental ethical standards DE10 Good knowledge of self to be able to impartially communicate own ethics and values	PP7 Demonstrates ability to independently translate and apply commonly used environmental policy, planning and legislation to a broad range of complex environmental issues or highly specialised issues PP8 Demonstrates examples of independently planning, selecting and applying commonly used management and assessment tools PP9 Applies their learned experience to continuously improve processes, systems or policy	AA7 Capable of planning and applying commonly used environmental impact and assessment processes including collecting and applying scientific data AA8 Demonstrates examples of contributing to the planning and application of environmental impact and assessment tools, techniques and methods for a complex environmental project AA9 Demonstrates evidence of leading continuous improvement to a tool, technique or method	DM8 Entrusted to independently manage routine environmental decisions and contributes options to complex decisions DM9 Can explain their personal processes for problem solving, decision making, prioritisation and how they consider consequences and benefits of decisions from a range of different points of view DM10 Explores and applies theories, tools and processes for continuous improvement to decision making and project management	NP7 Contributes to improved workplace culture NP8 Proficiently applies processes to manage projects, time, resources and self NP9 Demonstrates processes for routinely evaluating work NP10 Demonstrates a plan to better understand self and apply self-improvement initiatives
	Advance – 4-5 years	Proficient and trusted and applies acquired experience to independently manage complex projects, relationships, or issues independently. Experienced in managing self or others and sought out for advice. Ready to advance to management or specialist role or a changed field or role.	DS7 Demonstrates a range of networks, relationships and process skills to assess and evaluate trends, issues and needs in complex environmental projects DS8 Proficient in selecting and applying a suite of environmental management processes and tools DS9 Can provide evidence of where their advice has led to improved environmental outcomes	DE11 Can provide examples of influencing, persuading or challenging others to lead and promote sustainability DE12 Supports or mentors others on environmental ethics DE13 Can demonstrate a personal framework for ethical decision making which aligns with accepted practice DE14 Has a high knowledge of self to impartially explain own values	PP10 Translates and applies environmental policy, planning, and legislation to a broad range of complex environmental issues or highly specialised issues PP11 Demonstrates examples of planning, selecting and applying common and specialised environmental management tools PP12 Is sought out to share knowledge and advice with others	AA10 Demonstrates competence in independently applying environmental impact and assessment tools, techniques and methods to complex environmental projects AA11 Capable of collecting, interpreting and applying scientific and statistical data to complex projects AA12 Can provide evidence of where their advice has led to improved environmental outcomes	DM11 Entrusted to independently manage complex decisions DM12 Applies a range of processes, frameworks or theories for effective decision making and project management DM13 Capable of innovating and continually improving decisions and project management DM14 Demonstrates strategic and organisational acuity in decision making	NP11 Contributes to the development and delivery of strategic goals for their organisation NP12 Proficiently applies processes to manage projects, time, resources and people NP13 Actively applies processes to appraise own skills and performance, including routinely seeking feedback from peers, direct reports and management NP14 High level knowledge of self and others and applies this to build and develop effective teams



EIANZ Steps

- **Environmental Proficiencies**
 - Environmental Awareness,
 - Environmental Ethics,
 - Policy and Planning and Analysis
 - Risk Assessment
- **Enabling Proficiencies**
 - Decision Making,
 - Professional Practice
 - Communication



EIANZ Steps – Career Stages

Step 1

- Establish – Year 1
- Perform – Years 2 & 3

Step 2

- Improve – Years 3-4
- Advance – Years 4-5

- **Become a CEnvP!**



IEMA Skills Map

IEMA Environmental Skills Map

	Knowledge and understanding					Analytical thinking		Communication		Sustainable practice			Leadership for change	
Competency	Fundamental environmental and sustainability principles	Environmental policy issues	Environmental management and assessment tools	Environmental legislation	Business management	Analyse, interpret and report data and information	Develop sustainable solutions	Implement effective communication	Engage stakeholders (internal and external)	Implement sustainable thinking	Deliver environmental improvement	Managing business resilience	Lead change	Influence behaviour
Leadership	Understand environmental processes and limits and their impact on the sustainability of organisations	Understand environmental policy issues and their impact on strategic decision making	Understand how environmental management and assessment tools can be used to deliver improvement across the value chain	Understand policy instruments and the regulatory framework and their relationship to organisational strategy and operations	Understand business and commercial tools and the influence they have on organisational strategy and effectiveness	Specify data and information systems to support strategic decision making	Lead organisations to innovate, envision and develop sustainable solutions	Use communication to drive sustainable business practice	Champion effective stakeholder engagement	Embed sustainable thinking across organisational value chain	Ensure strategic policies and decisions include sustainability and consider whole life-cycle costing	Identify and manage strategic opportunities and risks to improve business resilience	Create a vision for strategic change and innovation to transform organisations	Influence, persuade and challenge others to lead and promote sustainability
Managerial	Explain environmental and sustainability principles and their relationship with organisations	Explain environmental policy trends and developments	Explain environmental management and assessment tools and their application	Evaluate environmental legislative developments and the implications for an organisation	Explain key business and commercial tools	Critically analyse, interpret and report data and information to inform decision making and provide advice	Identify and analyse problems and opportunities to develop and deliver sustainable solutions	Develop and lead the delivery of communication approaches	Identify, engage and respond to stakeholder needs	Develop and encourage innovative ideas that implement whole life-cycle thinking	Manage projects to deliver environmental performance improvement, making a business case	Identify strategic opportunities and risks to improve business resilience	Lead a process of change management, overcoming barriers	Educate, influence, persuade and challenge others to lead and promote sustainability
Specialist	Explain environmental and sustainability principles as they interact with work or study area	Explain environmental policy issues and trends in work or study area	Describe environmental management and assessment tools and their application	Identify, critically review and interpret environmental legislation in work or study area	Explain key business and commercial tools	Collect, analyse, interpret and report information, and/or conduct research to develop sustainable solutions	Research developments in work or study area to develop and propose sustainable solutions	Advise and influence others using effective communication methods	Identify and engage in two-way communication with stakeholders	Use sustainable thinking to lead research, develop or promote new methodologies or policies	Lead projects to deliver environmental performance improvement, making a business case	Explain how a changing environment affects work or study area	Lead a process of change management, overcoming barriers	Demonstrate leadership in work or study area
Operational	Understand environmental and sustainability principles and their relationship with organisations	Explain environmental policy issues	Describe environmental management and assessment tools and their application	Explain key environmental legislation and compliance measures	Understand key business and commercial tools	Collect, analyse, and report information and data	Analyse problems and opportunities to deliver sustainable solutions	Implement effective communication methods	Identify and engage in two-way communication with stakeholders	Implement environmental management and/or assessment tools	Develop programmes to deliver environmental performance improvement	Understand how a changing environment creates opportunities and risks for organisations	Implement change to improve sustainability	Influence and persuade others to improve sustainability
Non-graduate/ Graduate entry	Understand environmental and sustainability principles	Understand environmental policy issues	Aware of environmental management and assessment tools	Aware of environmental legislation and know how to assess compliance	Aware of key business and commercial tools	Collect data and undertake analysis and evaluation	Research and plan sustainable solutions	Determine effective communication methods	Engage with stakeholders	Support the implementation of environmental management and/or assessment tools	Propose ways to improve environmental performance	Aware of how a changing environment creates opportunities and risks for organisations	Support change in an organisation	Encourage others to improve sustainability

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IEMA Skills Map

Competencies:

- Entry
- Operational
- Specialist
- Managerial
- Leadership and include

Categories

- Knowledge and Understanding
- Analytical Thinking
- Communication
- Sustainable Practice
- Leadership for Change



IEMA Skills Map

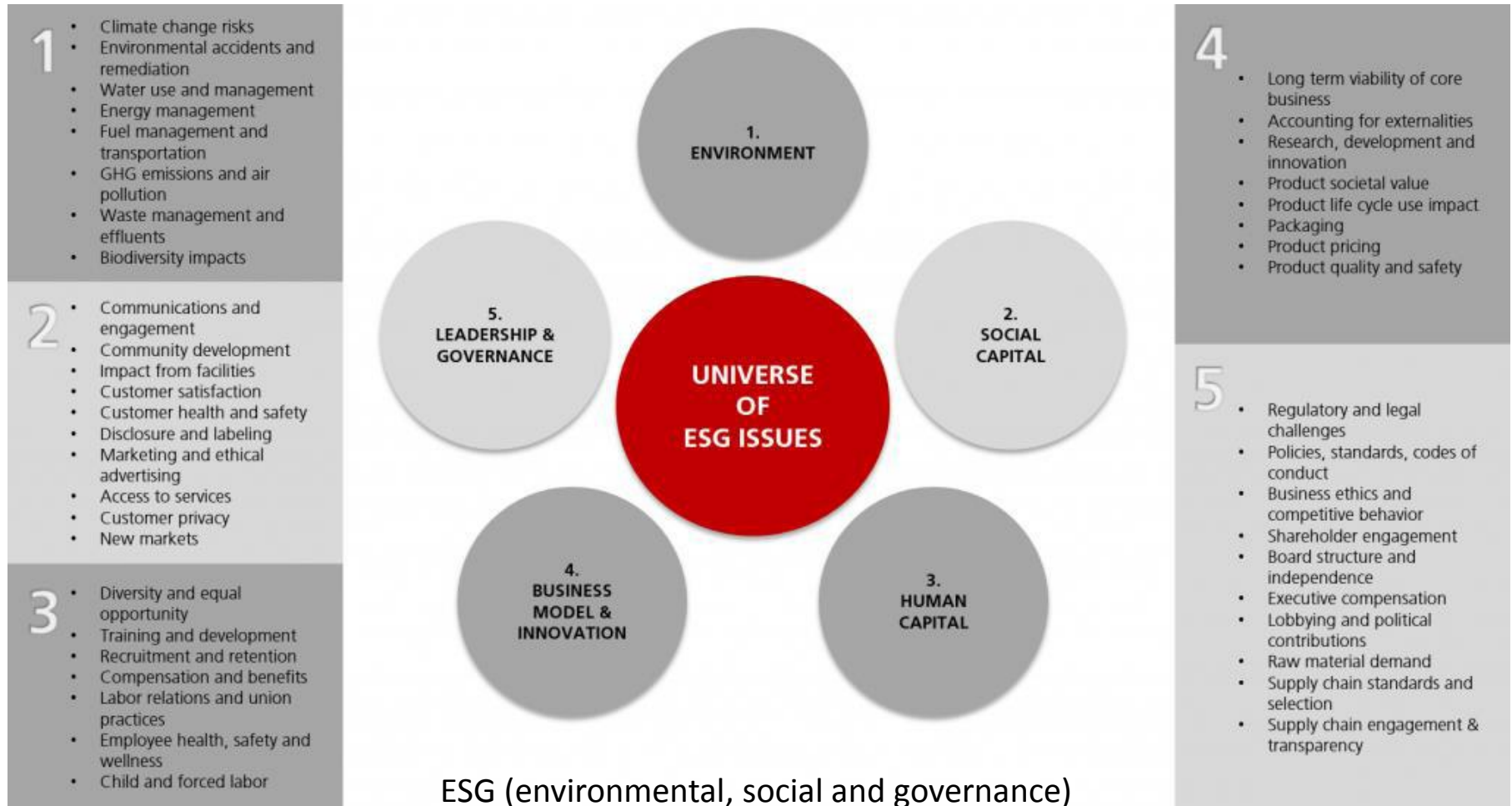
Fundamental environmental and sustainability principles	Knowledge and understanding
Environmental policy issues	
Environmental management and assessment tools	
Environmental legislation	
Business management	

Analyse, interpret and report data and information	Analytical thinking
Develop sustainable solutions	
Implement effective communication	Communication
Engage stakeholders (internal and external)	

Implement sustainable thinking	Sustainable practice
Deliver environmental improvement	
Managing business resilience	
Lead change	Leadership for change
Influence behaviour	



SUSTAINABILITY ACCOUNTING STANDARDS BOARD (USA)





PREPARING FOR THE PERFECT STORM

SKILLS FOR A SUSTAINABLE ECONOMY

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Introduction – Preparing for the Perfect Storm

Organisations need to recognise and prepare for these changes, to turn the challenges into opportunities. To do so they have to put environmental management and sustainability at their heart. In the new business world, sustainability will no longer be a “bolt-on” to the way organisations work; it must be in their DNA.



How confident are organisations that employee groups have the skills to address the environment and sustainability agenda?





Skills gaps most commonly reported by organisations with recruitment problems





Investing in the skills to transition to a sustainable economy

- skills for leaders to integrate sustainability into long-term decision making.
- enhanced skills and capability for environment and sustainability professionals so they can integrate sustainability throughout their organisations and value chains.
- increased environment and sustainability knowledge and understanding for all other workers, so they can play their full roles.



Conclusion

- A changing world presents many opportunities for environmental professionals
- Need to be flexible and adapt to change
- Sustainability professionals lead change
- Multiskilled will be the way of the future
- Your first degree may not be the profession you follow