

Importance & Future of Environmental Social Governance



EHS CONSULTANTS
A SCIENTIFIC APPROACH



×

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ISI member since

2023



**Institute for
Sustainable
Infrastructure**



ENVISION™

Introduction to Sustainability

“The integration of environmental health, social equity and economic vitality in order to create thriving, healthy, diverse and resilient communities for this generation and generations to come” - charter for the UCLA Sustainability Committee

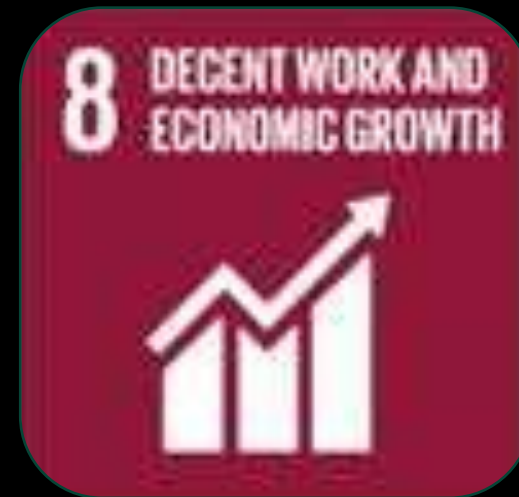


Pillars of Sustainability

The 3 Pillar concept



Sustainable Development goals



CLIMATE CHANGE

And Its Causes



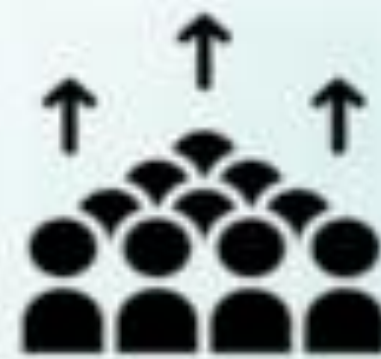
Deforestation



Greenhouse
Effect



Destruction of
Marine Ecosystem



Population
Increase

COMMUNITIES OF COLOR

Some communities of color living in risk-prone areas face cumulative exposure to multiple pollutants.

Adaptation plans that consider these communities and improve access to healthcare help address social inequities.

OLDER ADULTS

Older adults are vulnerable to extreme events that cause power outages or require evacuation.

Checking on elderly neighbors and proper emergency communication can save lives.

CHILDREN

Children have higher risk of heat stroke and illness than adults.

Adults can lessen risk by monitoring exertion and hydration.

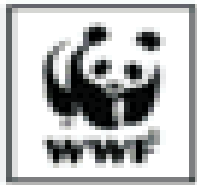
LOW INCOME COMMUNITIES

Low income families are at risk of physical and mental illnesses during flooding and in crowded shelter conditions.

Comprehensive disaster management can improve resiliency for people with limited resources.







IMPLICATIONS FOR BIODIVERSITY OF GLOBAL WARMING: 1.5°C



6% insects vert

Over half of all climate-determined geographic range, species adapt more slowly, new ecosystems may appear

One ice-free Arctic summer per **100 YEARS**

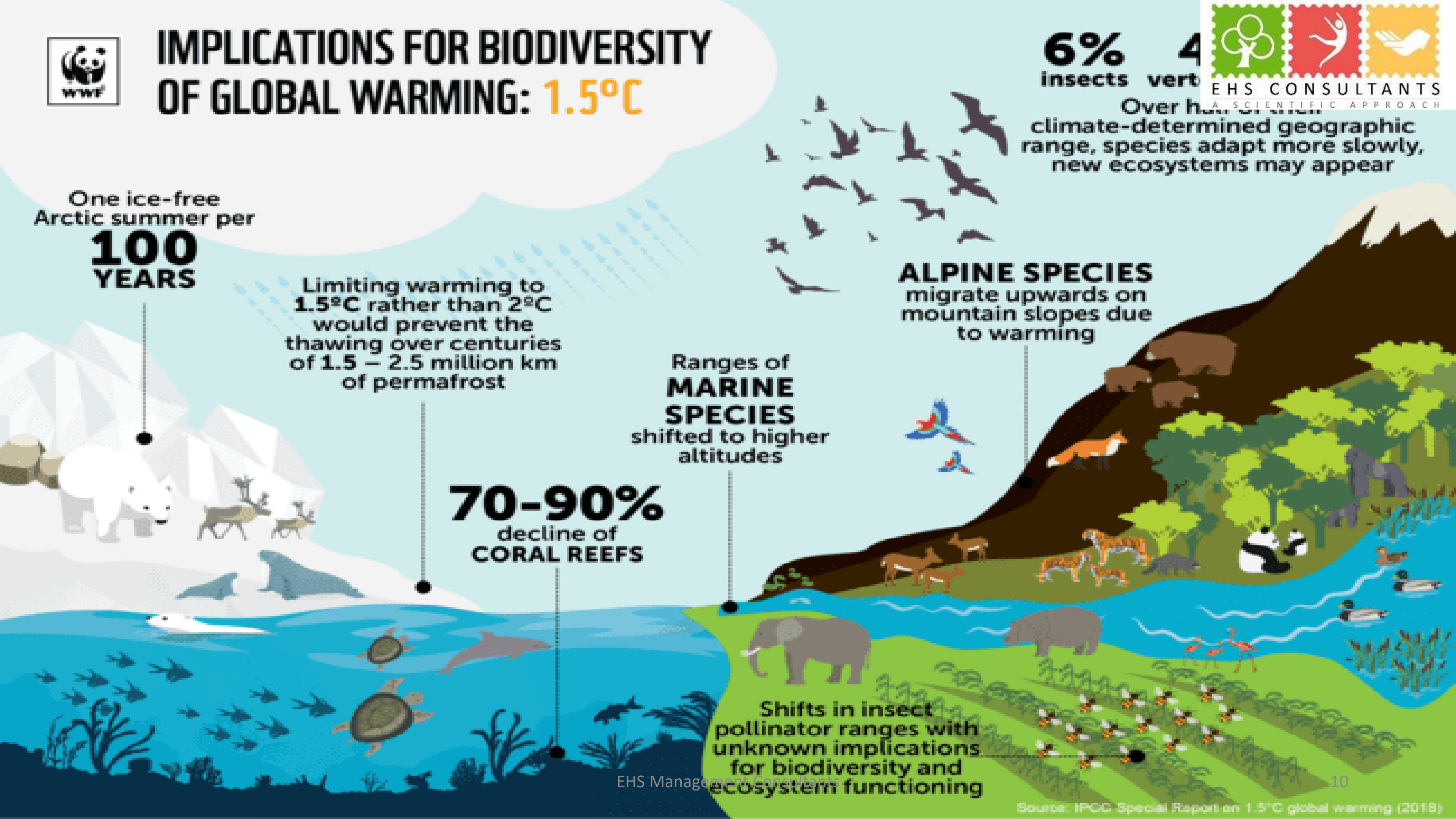
Limiting warming to **1.5°C** rather than **2°C** would prevent the thawing over centuries of **1.5 – 2.5 million km** of permafrost

Ranges of **MARINE SPECIES** shifted to higher altitudes

ALPINE SPECIES migrate upwards on mountain slopes due to warming

70-90% decline of **CORAL REEFS**

Shifts in insect pollinator ranges with unknown implications for biodiversity and ecosystem functioning



Microplastics?



What are Microplastics?

Plastics that are
smaller than 5 mm

Plastic Production
grew by 9% from
2016-19

Minimal decrease in 2021.
Equated to 367 Metric
tonnes of Plastic produced



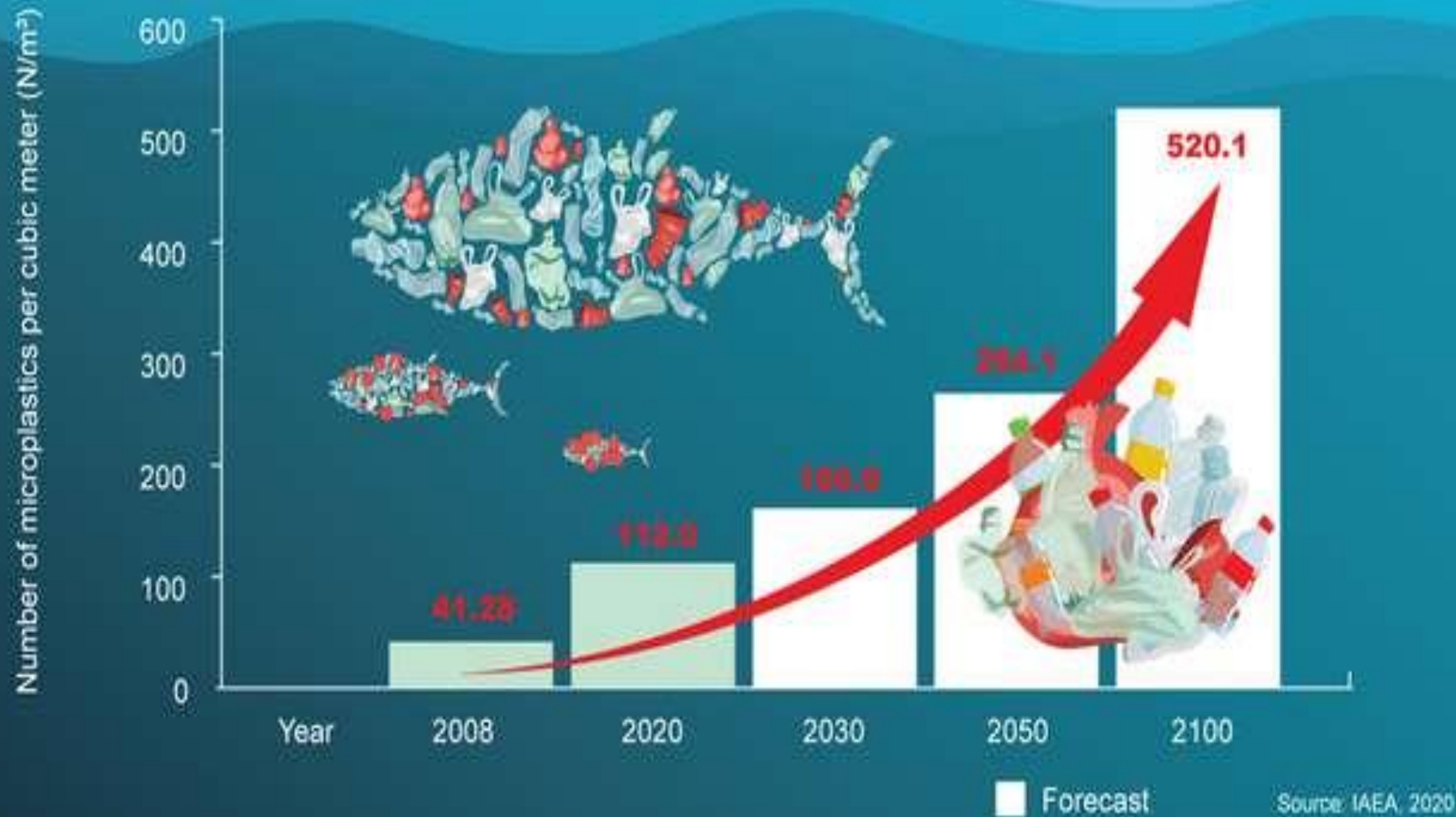
Ocean Pollution



Great pacific Garbage
patch

Threat to Us

Microplastics Abundance in Eastern Tropical Pacific





News of our Times

The
Guardian



Plastics

Microplastics found in human blood for first time

**Exclusive: The discovery shows the particles can
travel around the body and may lodge in organs**

Microplastic pollution has been detected in human blood for the first time, with scientists finding the tiny particles in almost 80% of the people tested.

The discovery shows the particles can travel around the body and may lodge in organs. The impact on health is as yet unknown. But researchers are concerned as microplastics cause damage to human cells in the laboratory and air pollution particles are already known to enter the body and cause millions of early deaths a year.

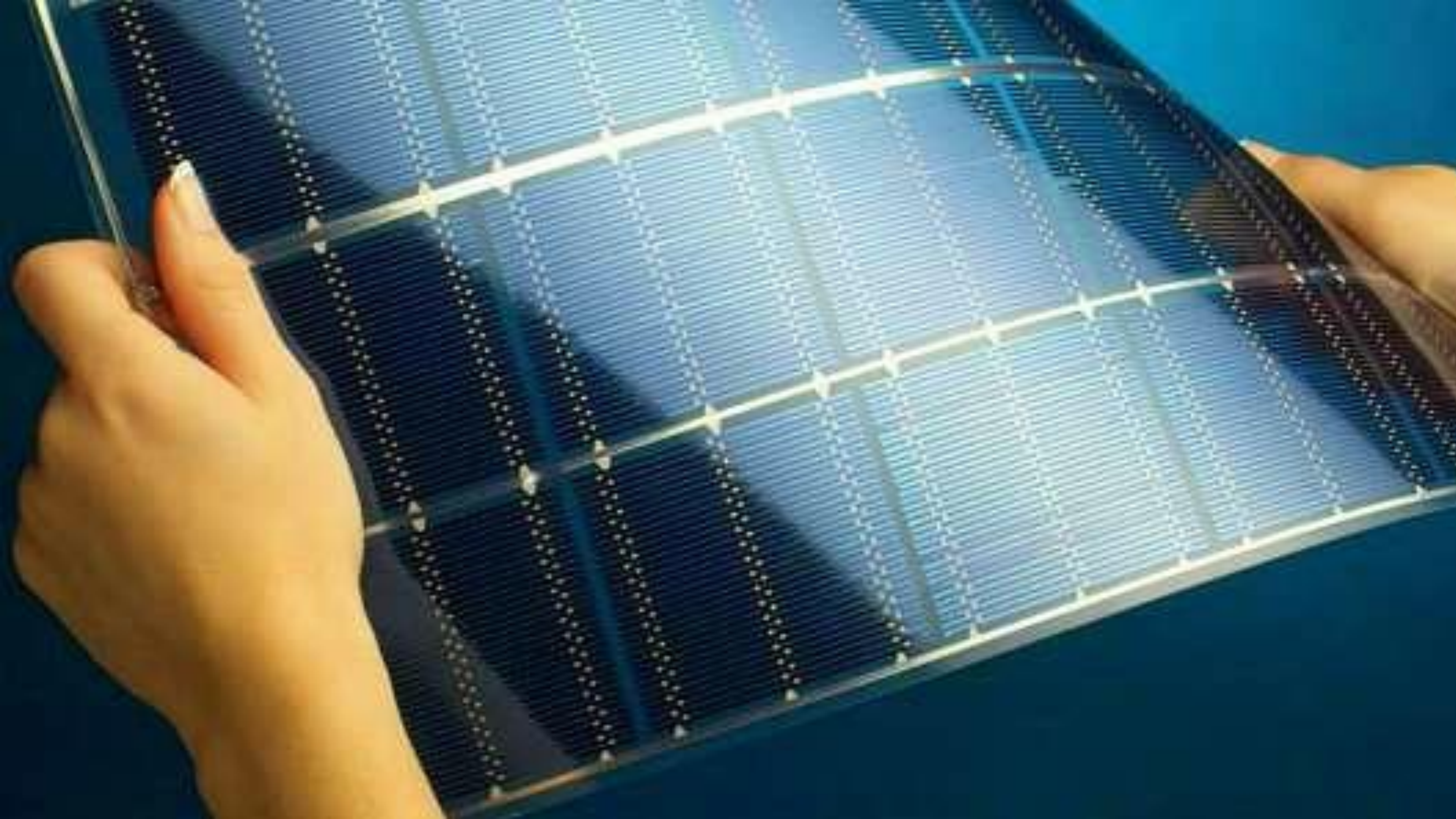
The scientists analysed blood samples from 22 anonymous donors, all healthy adults and found plastic particles in 17. Half the samples contained PET plastic, which is commonly used in drinks bottles, while a third contained polystyrene, used for packaging food and other products. A quarter of the blood samples contained polyethylene, from which plastic carrier bags are made.

Alternative Energy Infrastructures











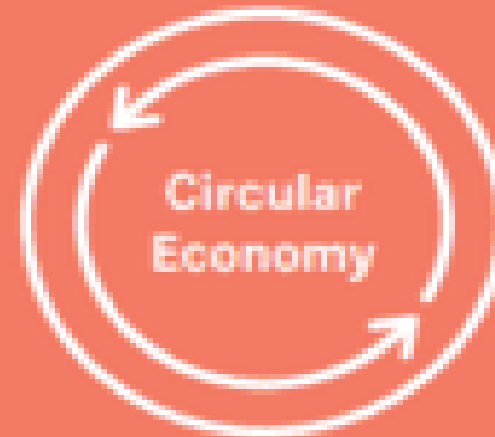
United Arab Emirates



UAE Net Zero Initiative

Launched in 2020 with an aim to unify local and federal efforts to harness the UAE's tourism resources:

- Building capabilities, developing policies, plan and programme based partnerships.



UAE Circular Economy Policy

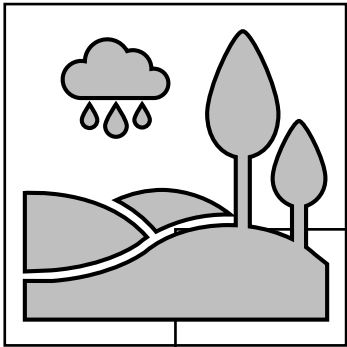
2021: UAE framework for determining the approach to achieving sustainable governance: Promotion of environmental, adoption of clean methods and reduction of environmental stress.



UAE Strategy for Domestic Tourism

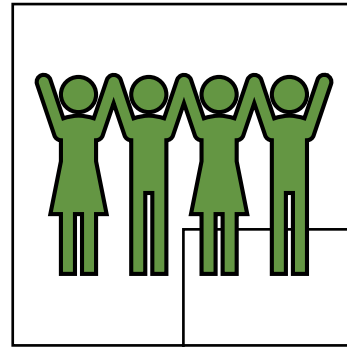
2021: UAE sector entities to update their sustainability approach: Investment AED600 Billion in clean and renewable energy sources expected by 2050.

ESG Investments



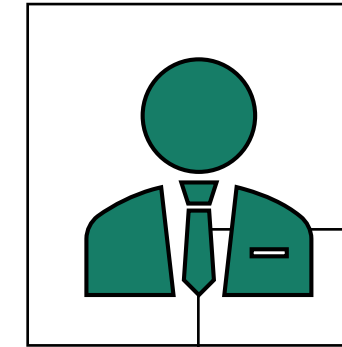
Environmental

- **Renewable fuels**
- **Reduced Greenhouse Gas Emissions (Carbon Footprint)**
- **Energy efficient technologies**
- **Water treatment**
- **Waste recycling**



Social

- **Safer workplace**
- **Employee benefits**
- **Diversity and Inclusion**
- **Involvement of local communities**
- **Human rights protection at work**



Governance

- **Diversity in governing board**
- **Inclusion of ethical standards**
- **Pay for performance system**
- **Stakeholder engagement**

Social Sustainability

- ✓ **Strategic social investments**
- ✓ **Adopting inclusive value chains.**
- ✓ **Identifying and managing business impacts on people.**

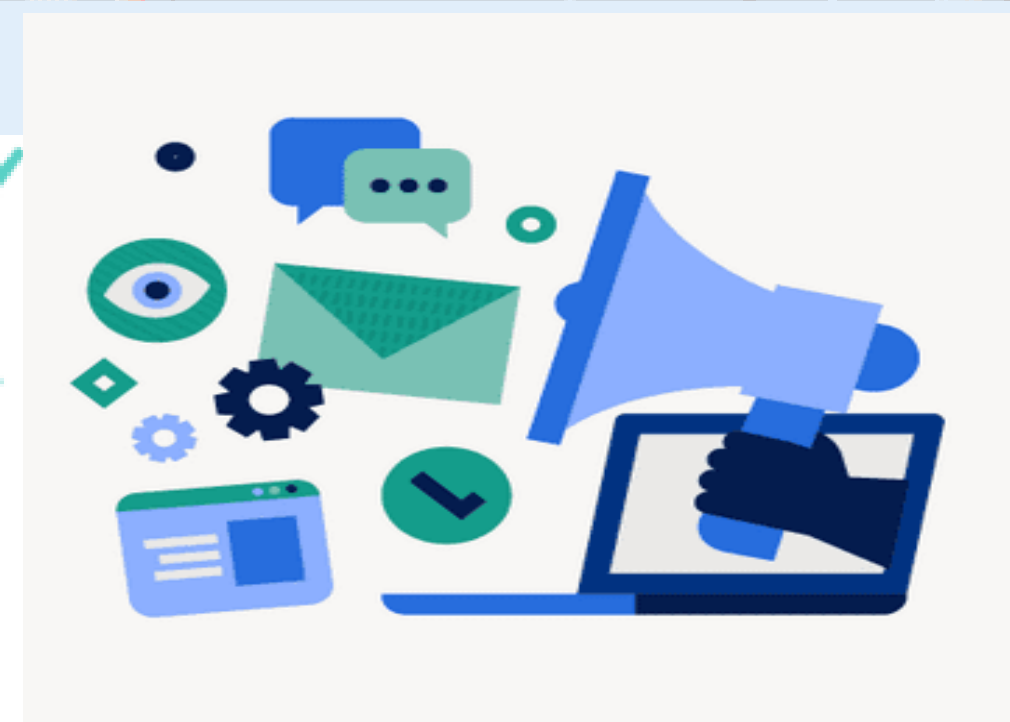


Inclusion and Diversity

- Ensuring safety at work
- Abiding by labor laws
- Encouraging 'whistle-blowers'
- Incentivizing sustainable practices
- Awareness from grass-root level
- Transparent recruitment processes
- Creating equal opportunities without gender discrimination

Community Involvement

- ❑ Initiatives such as campaigns and training programs
- ❑ Ensuring the safety of the community
- ❑ Building brand value among common people through CSR Initiatives



Governance in Business

- Ensuring Ethics at Work
- Risk assessment and mitigation
- Communicating with the public/regulatory bodies
- Creation of a Sustainability Framework

Why

Tier 1 –
Policies

What

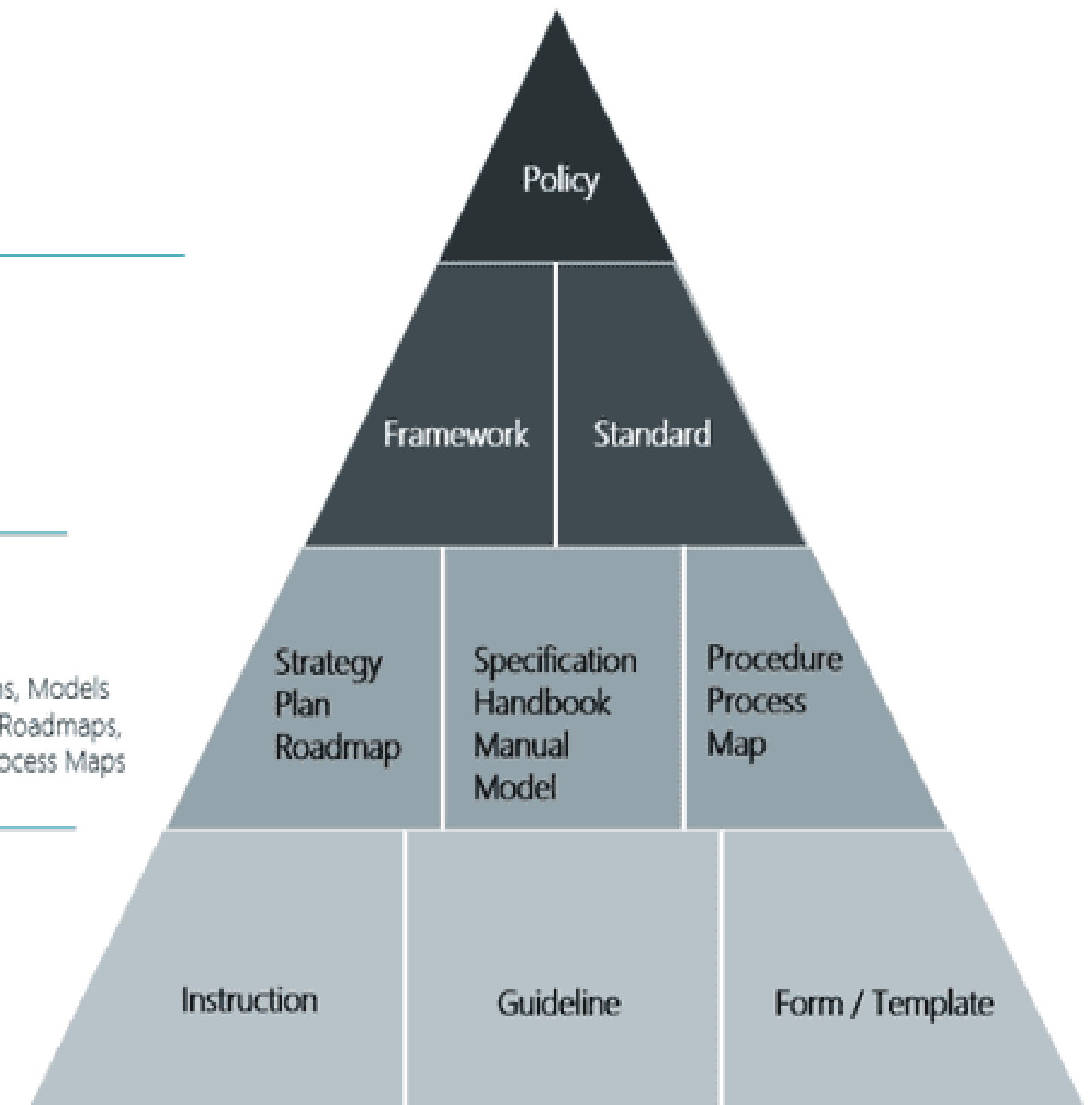
Tier 2 –
Frameworks
& Standards

How

Tier 3 –
Strategies & Plans, Models
Specifications & Roadmaps,
Procedures & Process Maps

With

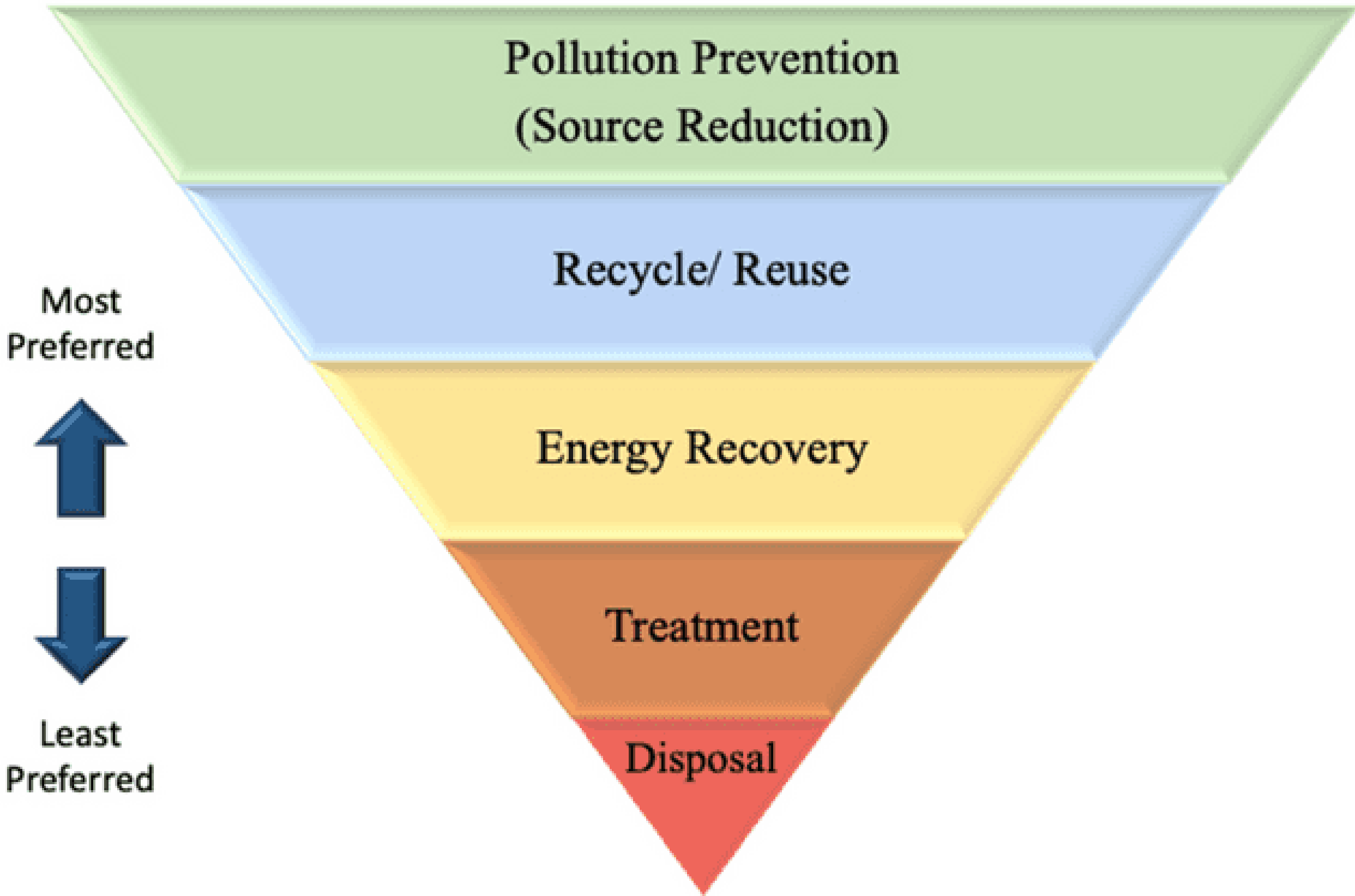
Tier 4 –
Instructions,
Guidelines,
Forms &
Templates

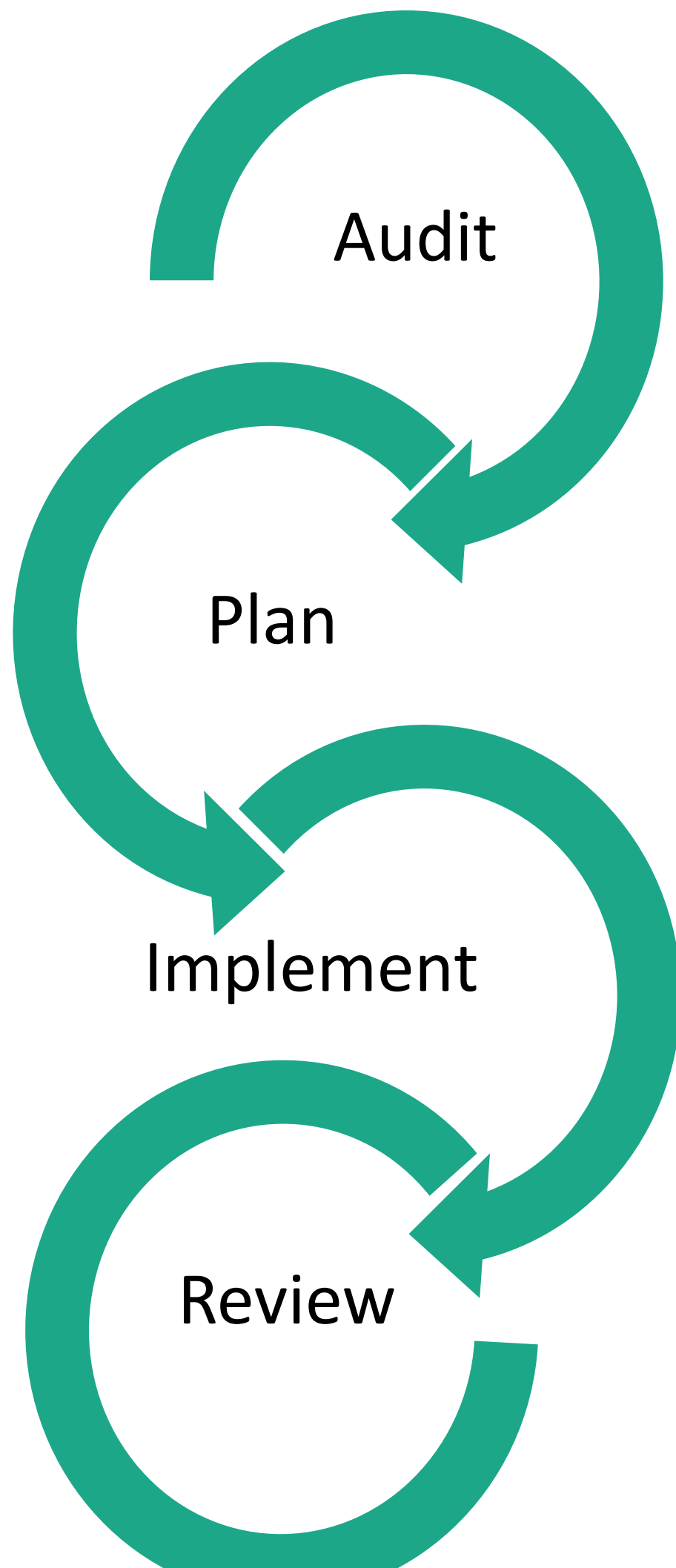


Economical Sustainability

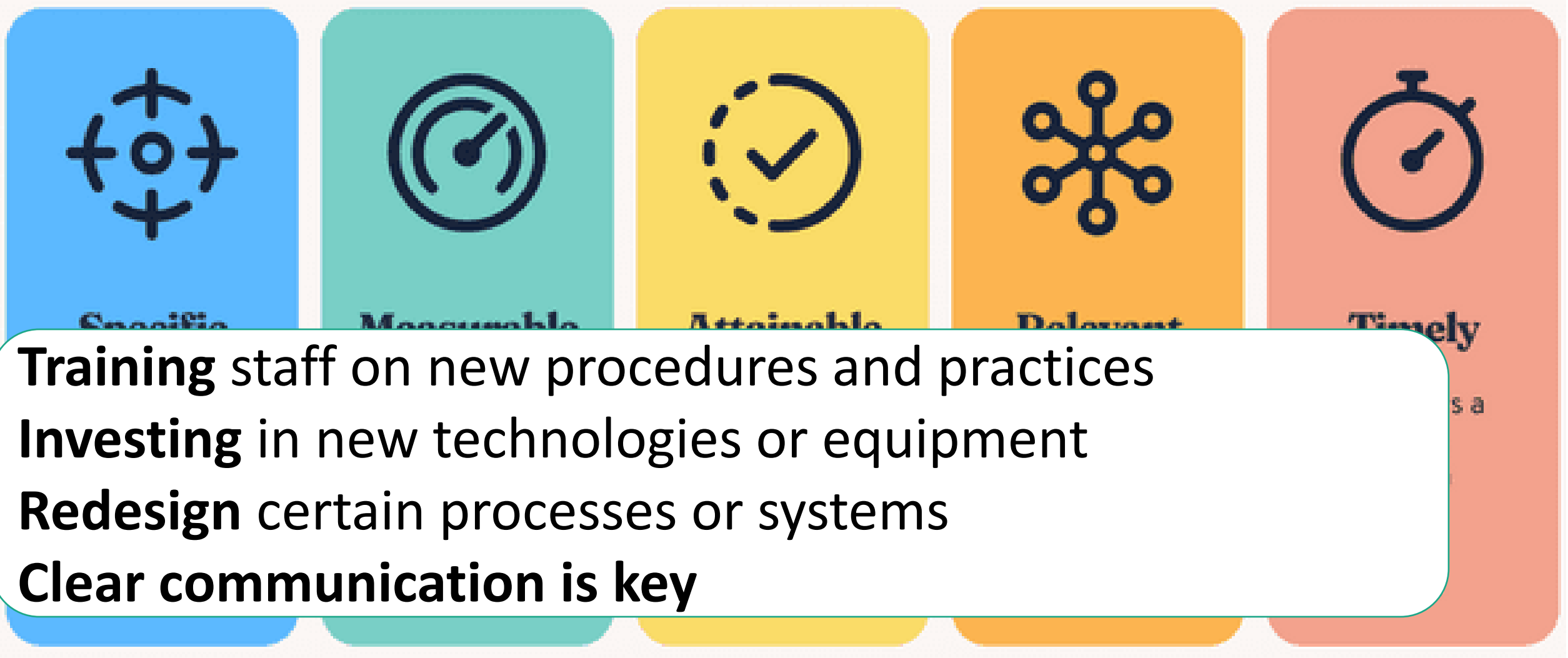


Pollution Reduction Methodology





How much waste do you generate?
 What resources do you consume?
 Where are the opportunities to reduce, reuse, or recycle?



Specific

Measurable

Attainable

Relevant

Timely

Training staff on new procedures and practices
Investing in new technologies or equipment
Redesign certain processes or systems
Clear communication is key

IMPACT OF PACKAGING ON THE SUPPLY CHAIN





How to offset carbon emissions



STEP 1

Measure emissions

Learn how much greenhouse gas emissions your organization produces.

STEP 2

Reduce emissions

Change to more sustainable business practices to reduce emissions.

STEP 3

Offset the rest

Fund emission reduction projects elsewhere through the purchase of credits to offset the emissions you can't reduce yourself.

STEP 4

Receive a credit

The credit shows that your business has offset its carbon emissions.

CARBON OFFSET





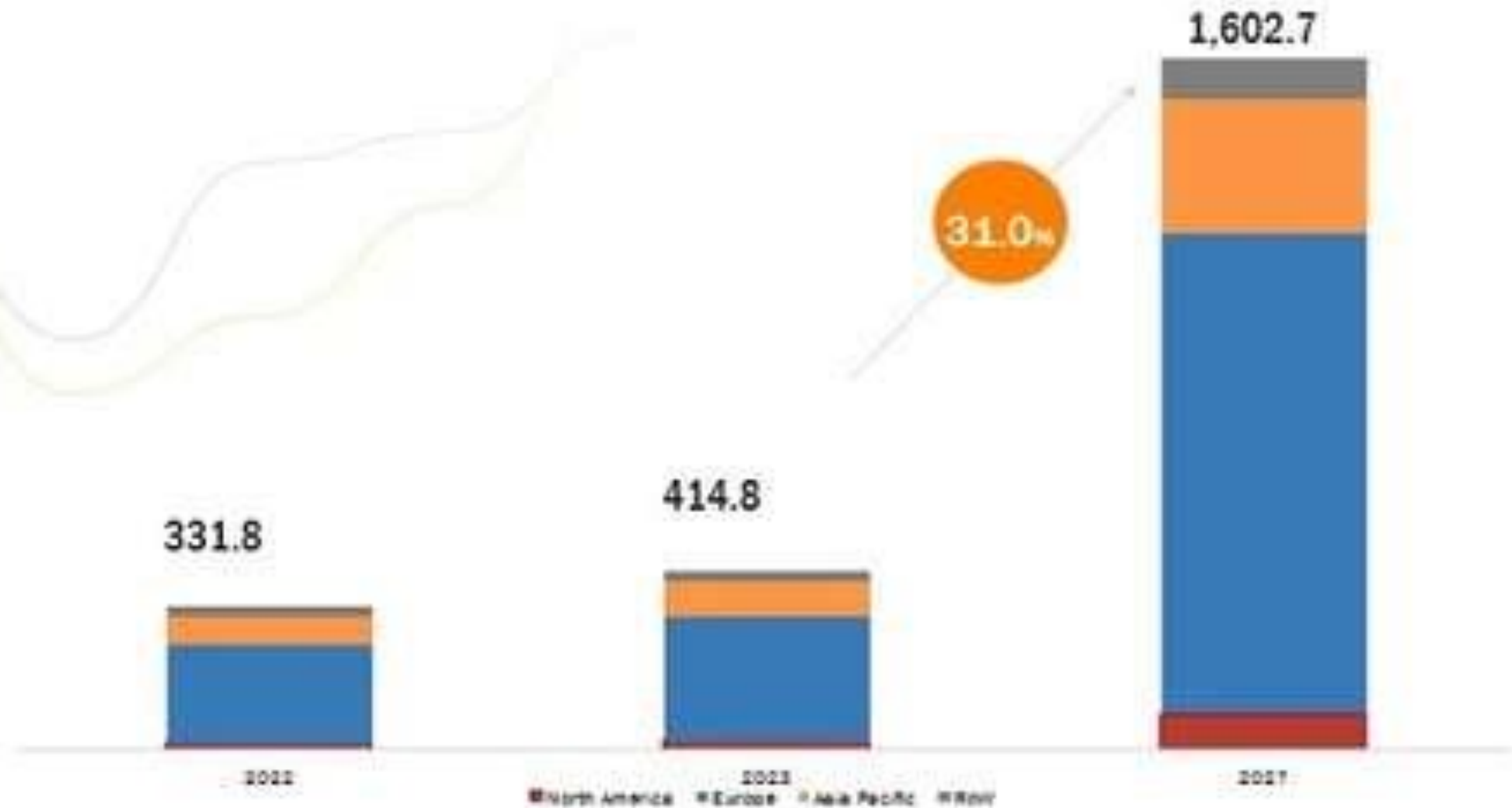
CARBON OFFSET/CARBON CREDIT MARKET

GLOBAL FORECAST TO 2028 (USD BN)



CAGR OF
31.0%

The global carbon offset/carbon credit market is expected to be worth USD 1,602.7 billion by 2028, growing at a CAGR of 31.0% during the forecast period.

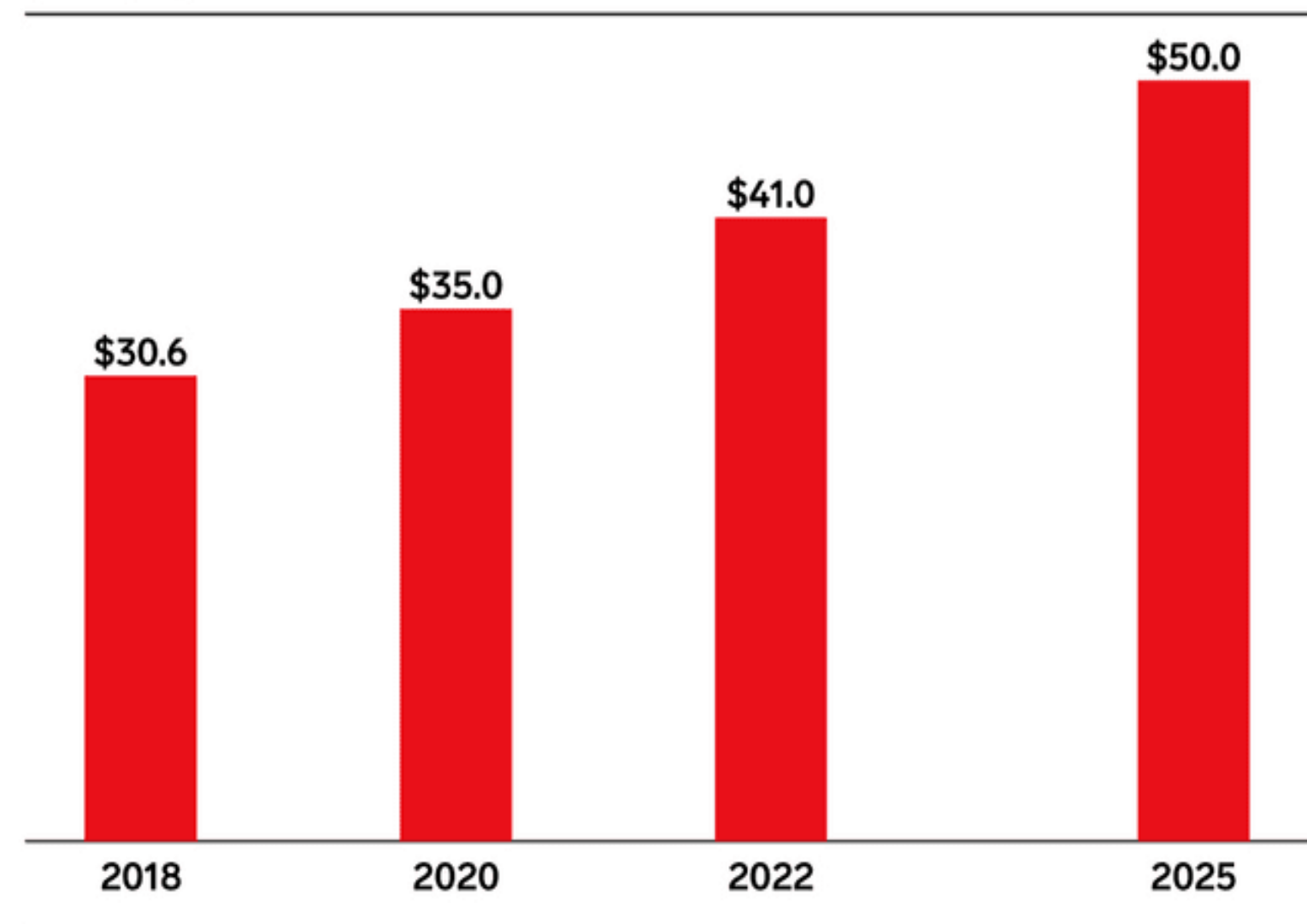


ESG Global Financial market

ESG based assets projected to constitute more than 35% of the projected global asset market of 2025.

These numbers will be impacted however by the more stringent regulations and reporting guidelines being developed by financial accounting firms

**Environmental, Social, and Governance (ESG)
Assets Under Management Worldwide, 2018-2025**
trillions



Source: Bloomberg as cited in company blog, Jan 24, 2022

ESG trends in the Middle-East

64 %

**Adopted formal
ESG strategies**

73 %

**Committed to
Carbon
Neutrality**

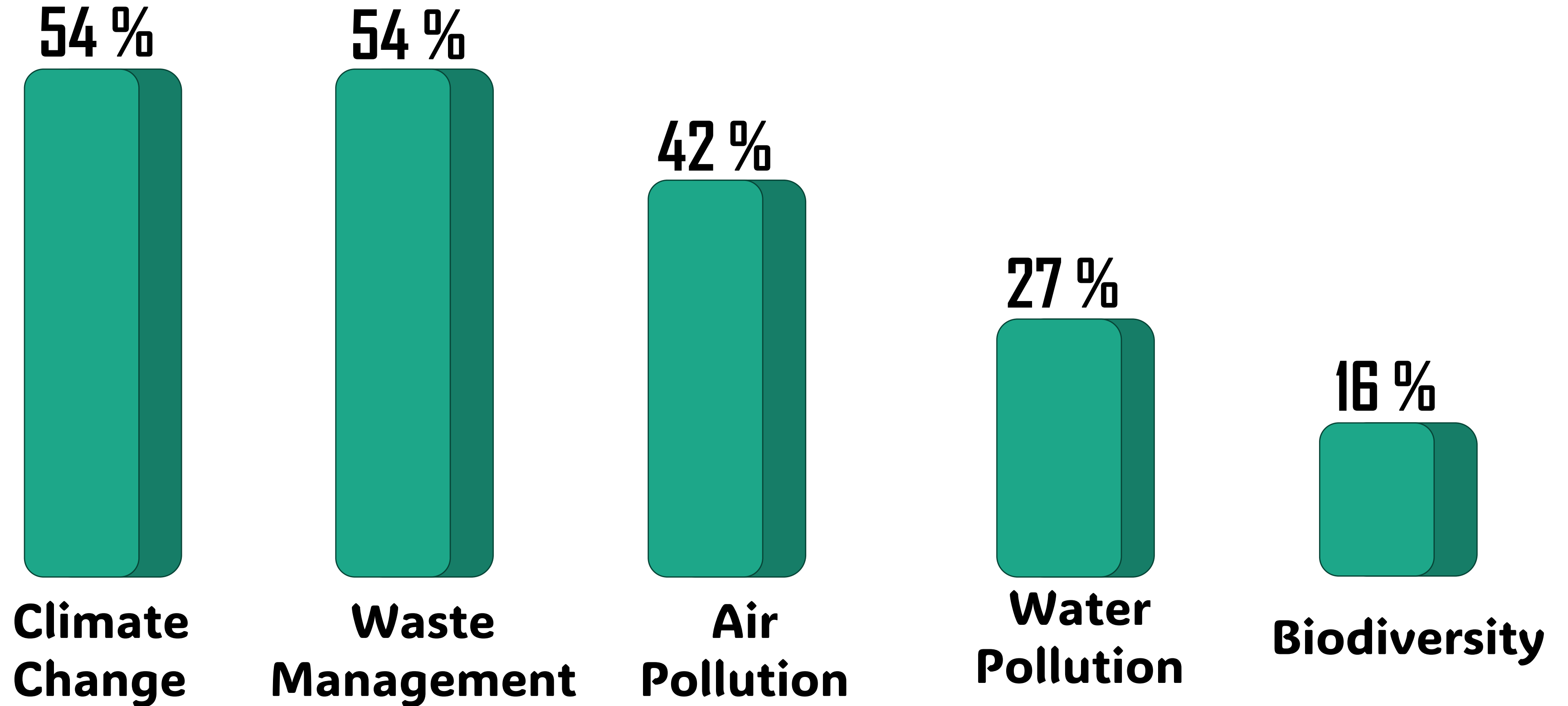
70 %

**Companies have
internal ESG
reporting**

59 %

**Conduct formal
ESG Audits**

ESG areas of focus in the Middle-East



Sustainable Development



#01 Ecology & Planning

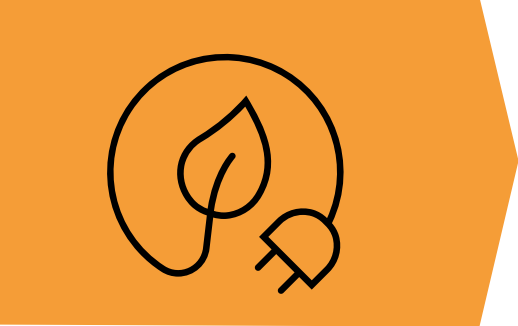
#02 Building Vitality

#03 Energy & Water Usage Efficiency

#04 Materials and Wastage

#05 Transportation

Ecology & Planning

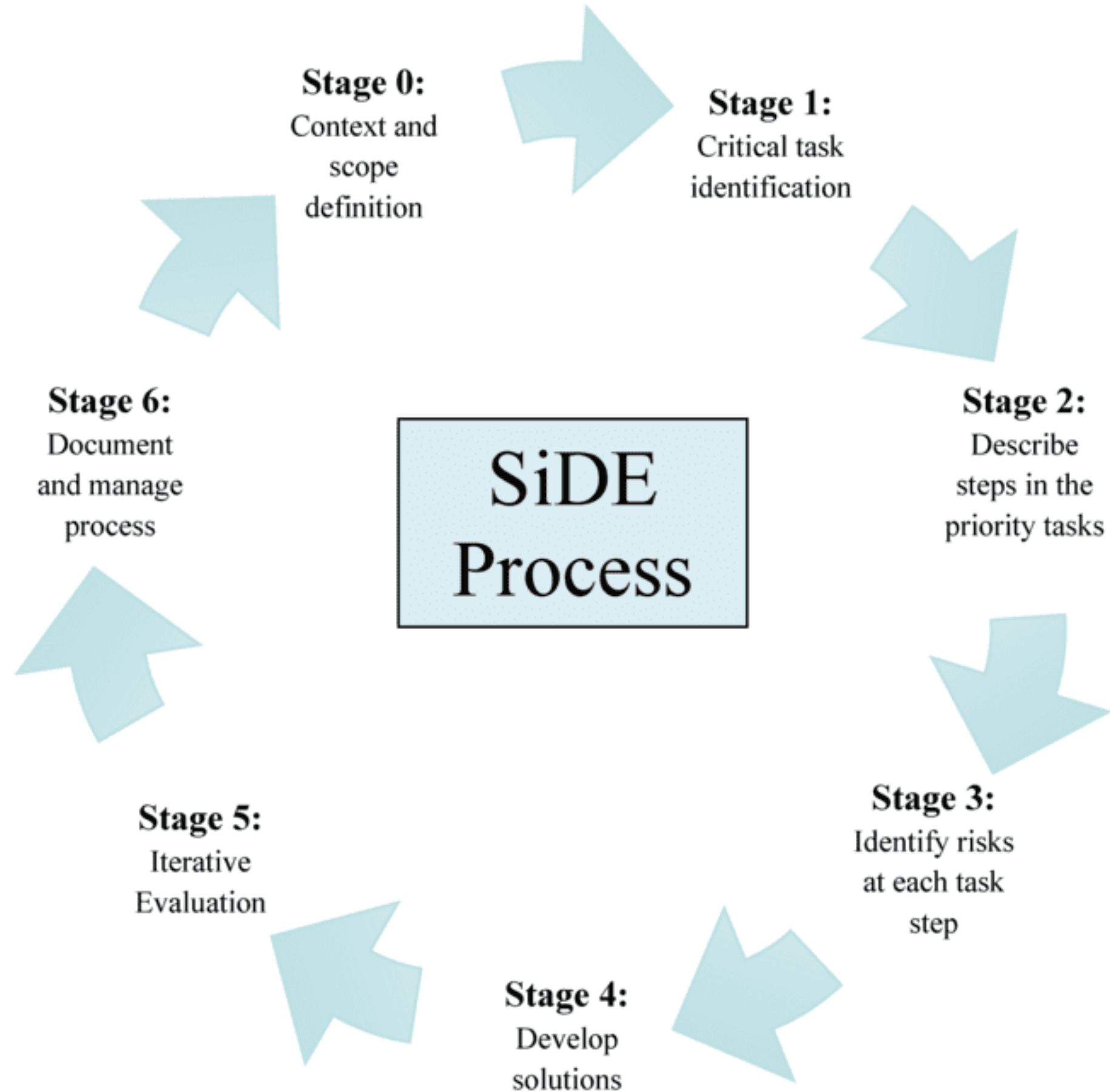
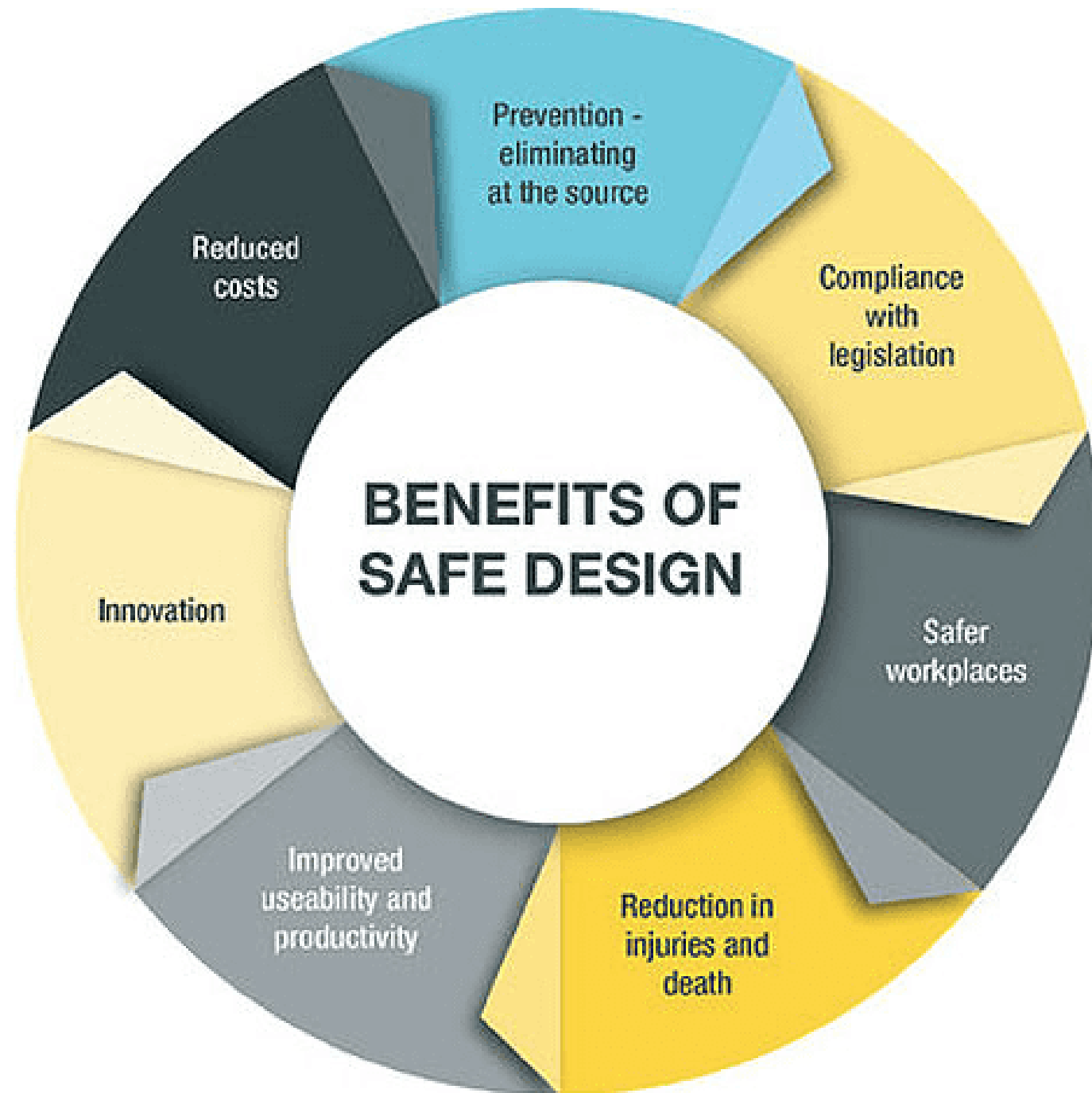


Ecology & Planning



Planning

Safety in Design



Building Vitality



Building Vitality



ANSI/ASHRAE Standard 62.1-2022
(Supersedes ANSI/ASHRAE Standard 62.1-2019)
Includes ANSI/ASHRAE addenda listed in Appendix Q

Ventilation and Acceptable Indoor Air Quality

See Appendix Q for approval dates by ASHRAE and the American National Standards Institute.

This Standard is under continuous maintenance by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the Standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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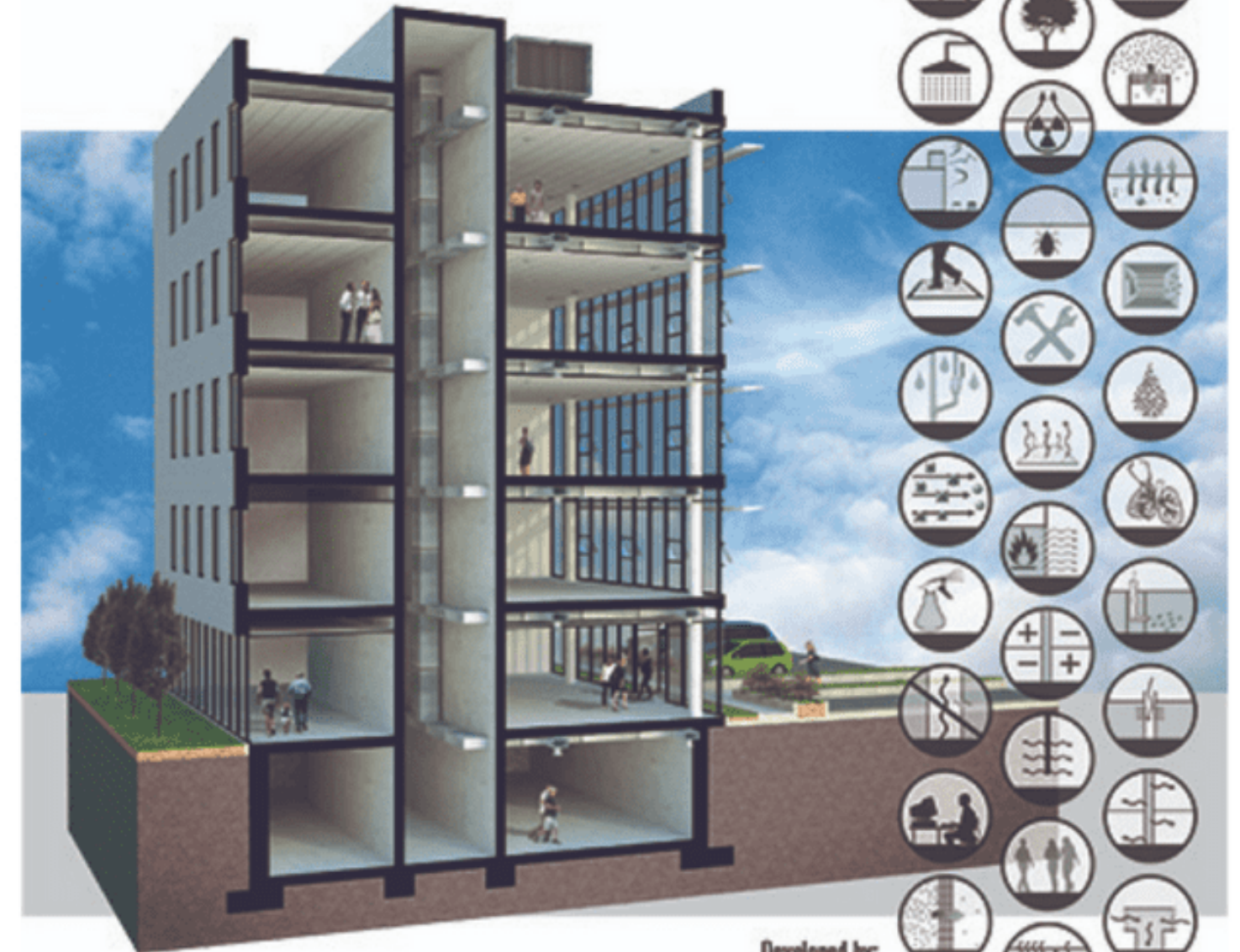


PDF includes hyperlinks for convenient navigation. Click on a reference to a section, table, figure, or equation to jump to its location. Return to the previous page via the bookmark menu.



Indoor Air Quality Guide

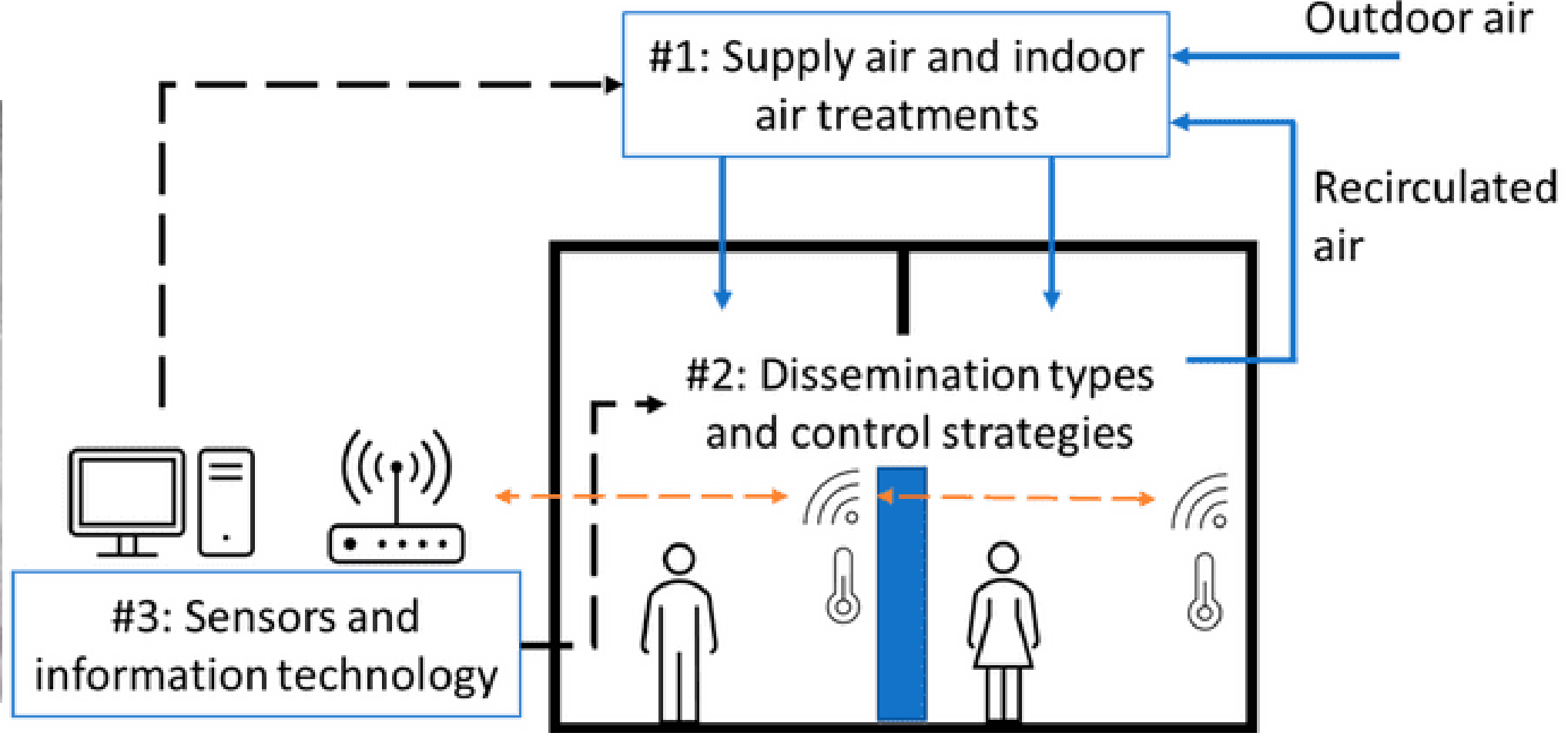
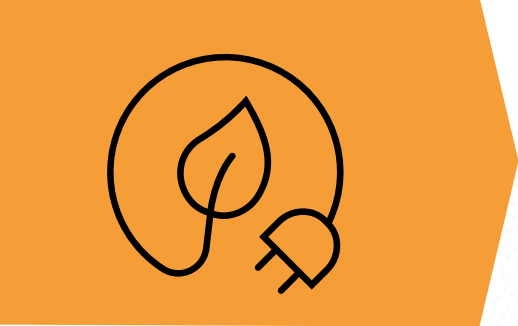
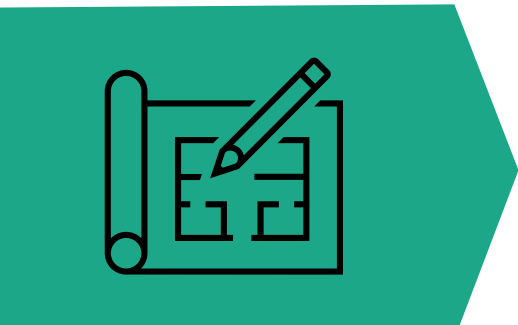
Best Practices for Design, Construction,
and Commissioning



Developed by:
American Society of Heating, Refrigerating and Air-Conditioning Engineers
The American Institute of Architects
Building Owners and Managers Association International
Sheet Metal and Air Conditioning Contractors' National Association
U.S. Environmental Protection Agency
U.S. Green Building Council

IAQ
62.1

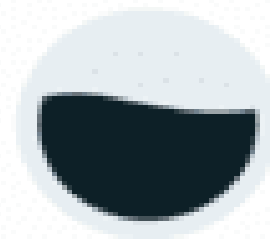
Building Vitality



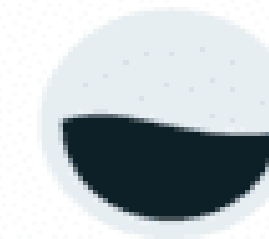
Employees and occupants are most concerned about IAQ
 Who is most concerned with indoor air quality within your company?



61%
 Employees / occupants



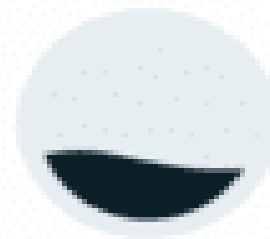
56%
 Building and facility teams



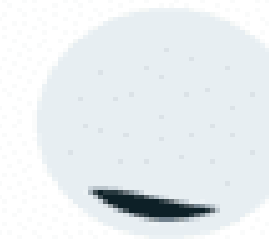
45%
 Sustainability teams or leaders



32%
 Workplace experience teams or leaders



26%
 C-suite and/or board members



6%
 Other

Energy & Water Usage efficiency

المكتب الإعلامي
الحكومة دبي
GOVERNMENT OF DUBAI
MEDIA OFFICE

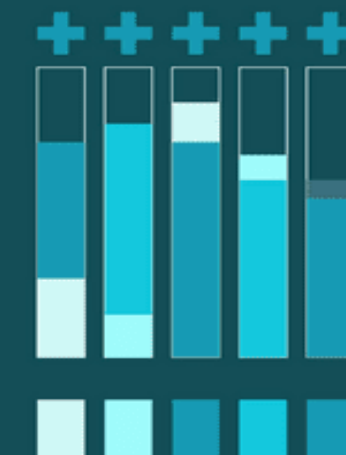


Dubai Emerges as a Global Model for Water Reclamation

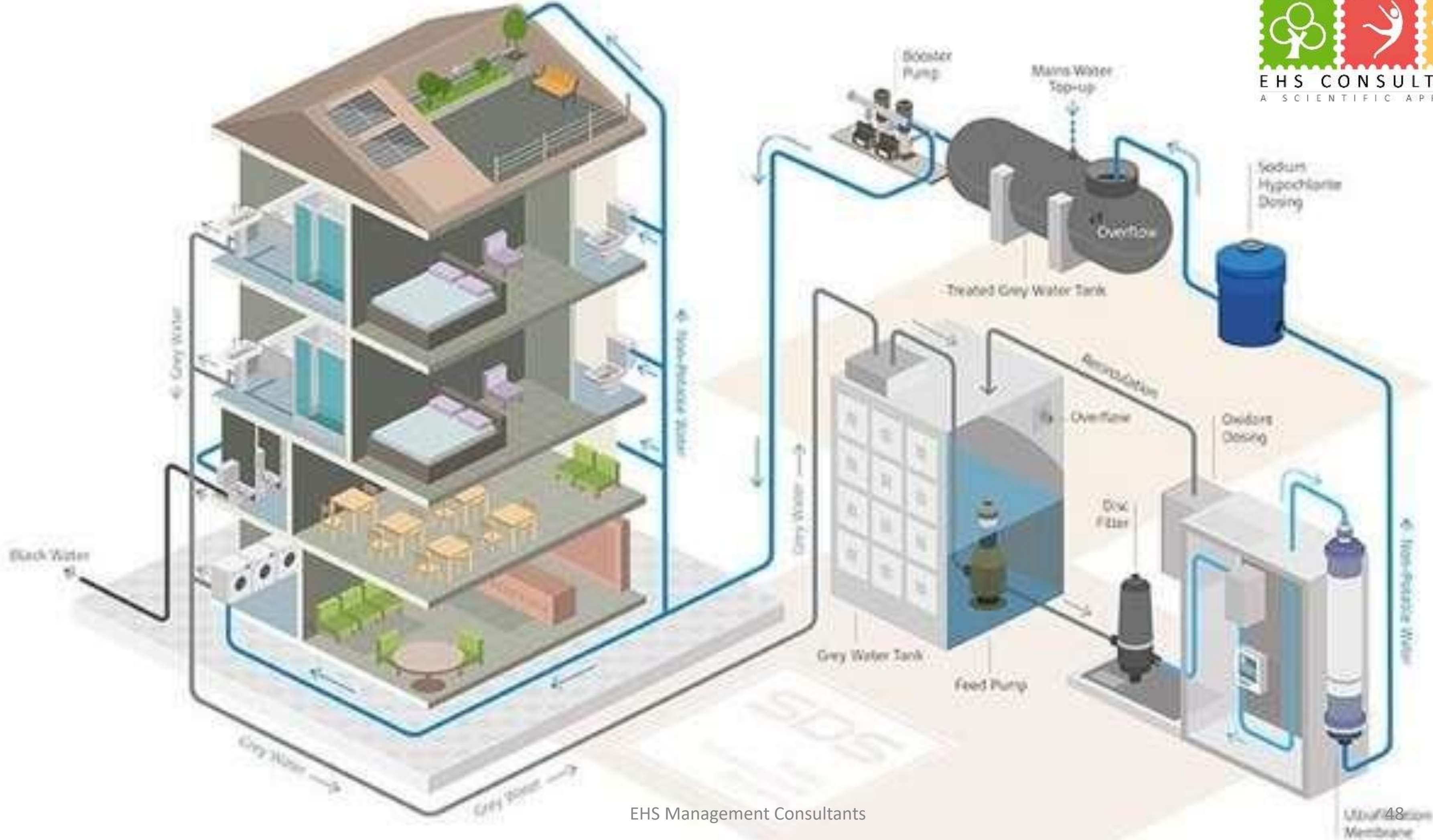
Water recycling success accelerates emirate's sustainability vision



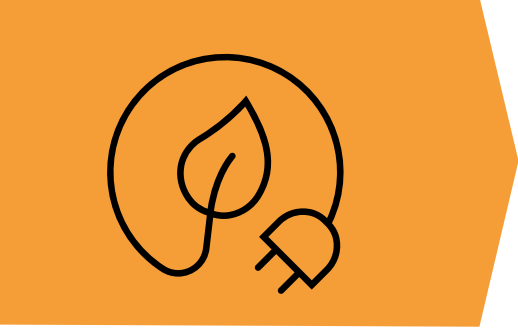
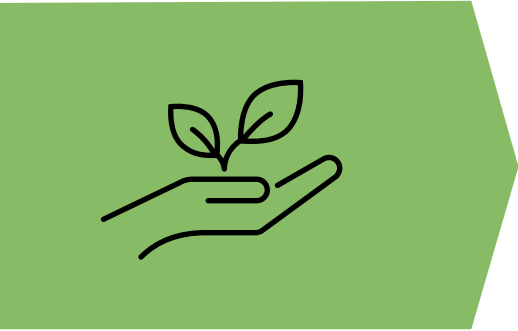
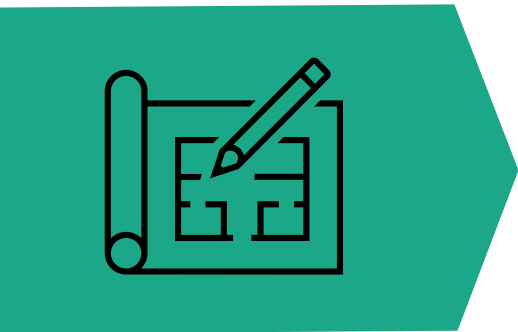
Water Reclamation +



- 100%** Recycled water use targeted by 2030
- 90%** Current rate of recycled water use
- 30%** Targeted cut in desalinated water & related power use by 2030
- 4.5 billion m3** Water recycled from 1980 to 2022
- AED2 billion** Annual savings from water reuse
- 314 million m3** Recycled water used in 2022
- 265 million m3** Recycled water used annually for green spaces
- 8 billion m3** Volume of recycled water targeted by 2030



Materials



Sustainability declaration



The sustainability declaration must be completed before a house, townhouse or unit is marketed or offered for sale from 1 January 2010.

If you are experiencing difficulties completing this form, a reference guide and fact sheet are available on the Department of Infrastructure and Planning's website www.dip.qld.gov.au

If you don't know the answer to any question, please leave the box blank.

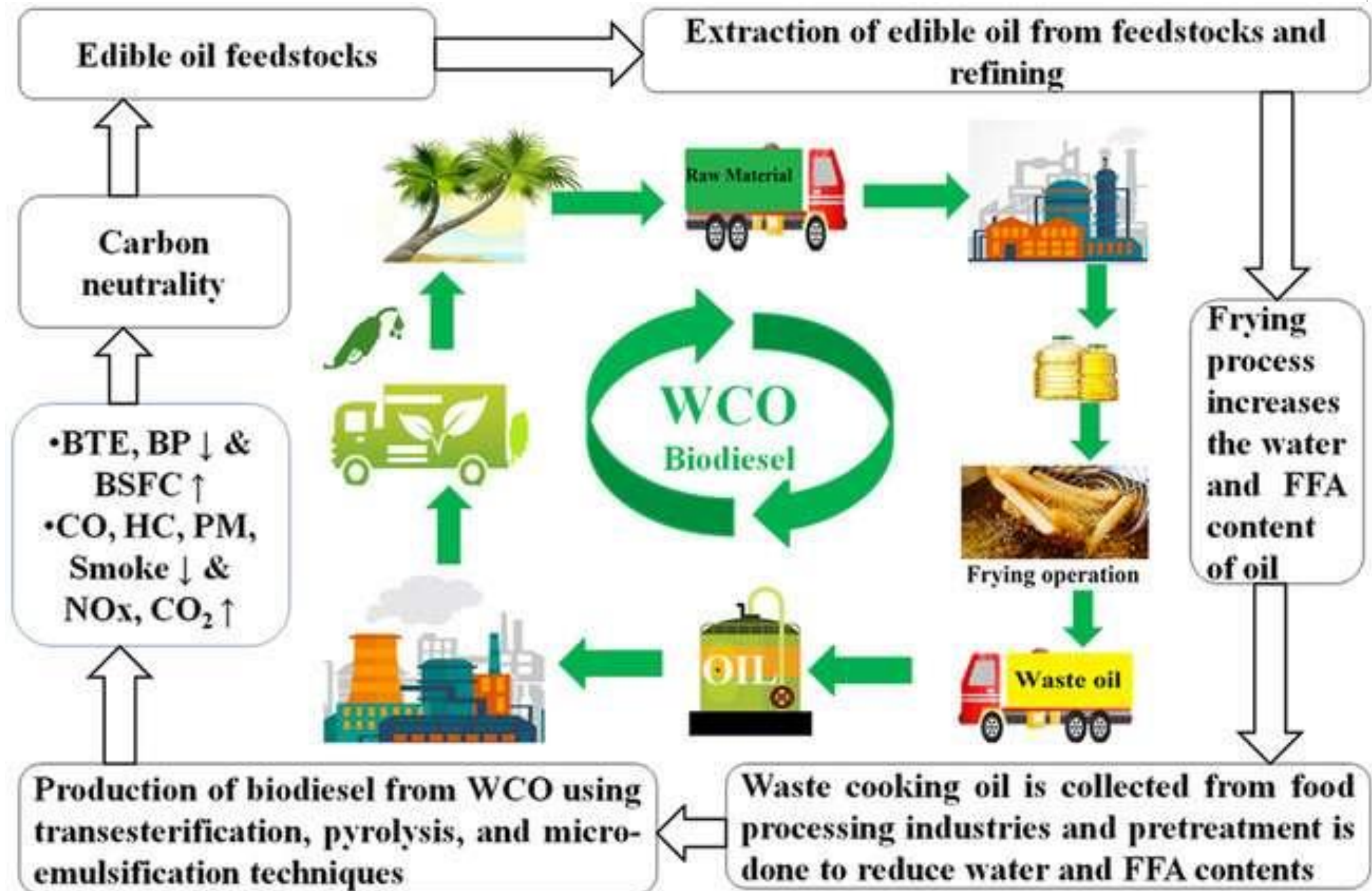
1. Energy		Did you know?
Please tick if known		Potential savings in electricity costs per year of up to:
<input type="checkbox"/>	E1 Solar power (if known, <input type="text"/> kilowatts [kW])	\$546 or 42%
<input type="checkbox"/>	E2 Solar hot water system	\$346 or 26%
<input type="checkbox"/>	heat pump hot water system	\$263 or 20%
<input checked="" type="checkbox"/>	gas hot water system	\$346 or 26%
<input checked="" type="checkbox"/>	E3 No swimming pool or spa or pool or spa pump connected to off-peak tariff (e.g. tariff 31 or 33)	\$650 or 50%
<input checked="" type="checkbox"/>	E4 A covered outdoor living area attached to an indoor living area	\$140 or 10%
<input checked="" type="checkbox"/>	E5 Insulation material in:	
<input type="checkbox"/>	• roof <input type="checkbox"/> partial in <input type="text"/> (location)	\$289 or 22%
<input type="checkbox"/>	• ceiling <input type="checkbox"/> partial in <input type="text"/> (location)	
<input type="checkbox"/>	• walls <input type="checkbox"/> partial in <input type="text"/> (location)	
<input type="checkbox"/>	• floors <input type="checkbox"/> partial in <input type="text"/> (location)	
<input type="checkbox"/>	<input type="checkbox"/> light coloured roof	These design features can help control the temperature in your home and reduce your energy bill
<input type="checkbox"/>	<input type="checkbox"/> ventilation (e.g. eave vents and/or whirlybirds)	
<input type="checkbox"/>	<input type="checkbox"/> eastern and western windows are shaded	
<input type="checkbox"/>	<input type="checkbox"/> windows have window treatment (e.g. tinted, double coated, toned)	\$140 or 10%
<input type="checkbox"/>	<input type="checkbox"/> at least 30% of fixed internal lights are energy efficient	\$82 or 6%
<input type="checkbox"/>	<input type="checkbox"/> cooktop	\$256 or 19%
<input type="checkbox"/>	induction cooktop or gas oven	
<input checked="" type="checkbox"/>	E12 No air-conditioning or fixed evaporative air-conditioner or <input type="text"/> out of <input type="text"/> air-conditioners are energy efficient (minimum 2.9 Energy Efficiency Ratio [EER])	\$408 or 31% \$89 each system or 6% each system
<input checked="" type="checkbox"/>	E13 Ceiling fan/s in:	
<input checked="" type="checkbox"/>	<input type="text"/> out of <input type="text"/> bedroom/s	\$25 or 2%
<input checked="" type="checkbox"/>	<input type="text"/> out of <input type="text"/> living area/s	\$74 or 5%

NOTE: For further information on how electricity and water savings were calculated, please refer to the Sustainability declaration reference guide.

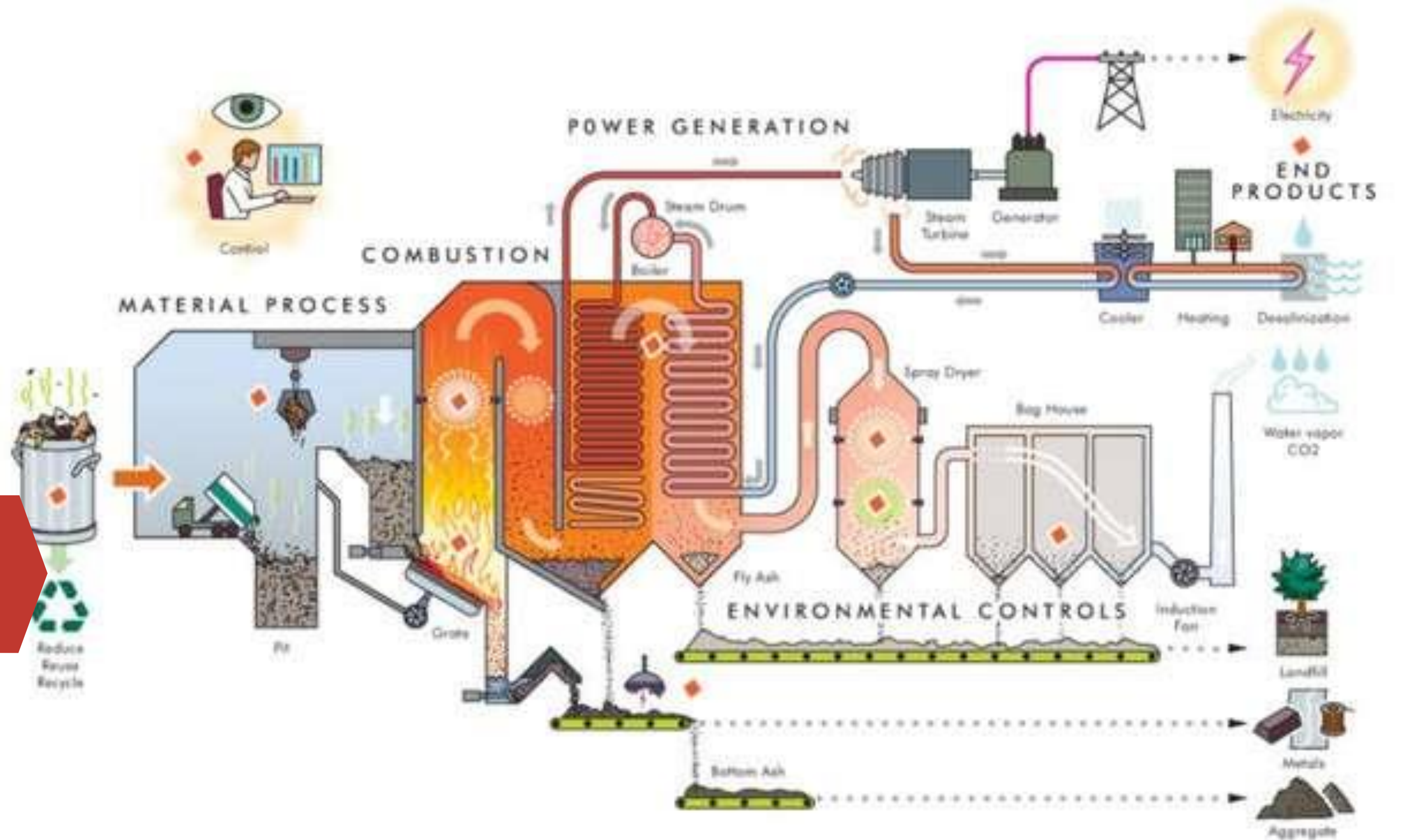
Version 2
1 February 2010



Green Building: Materials and Wastage



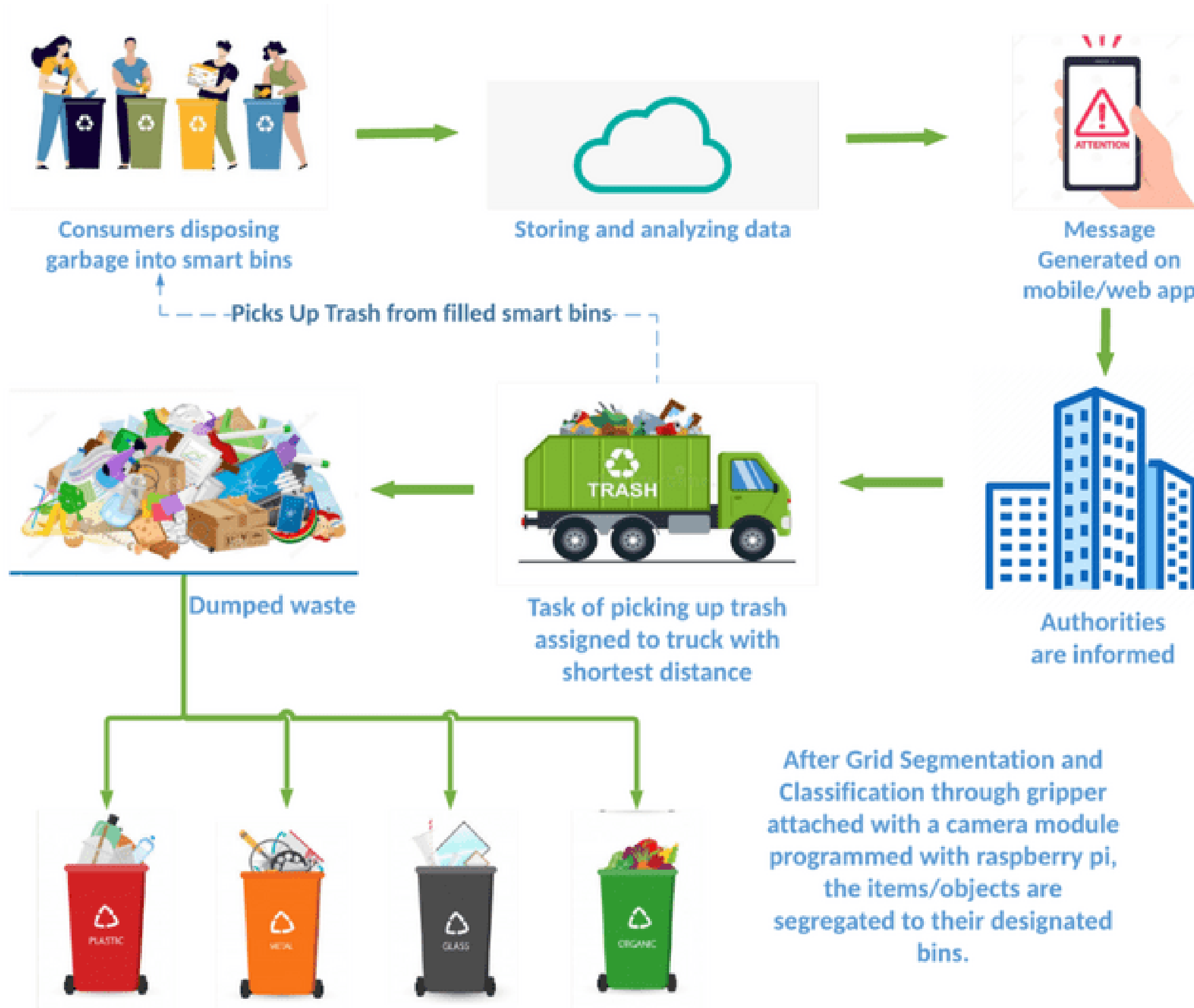
Wastage



Wastage



Wastage



Transportation

Light Vehicles in the UAE



- Sulphur dioxide: 350 micrograms / cubic metre an hour
- Carbon Monoxide: 30 milligrams / cubic metre an hour
- PM10 : 230 micrograms / cubic metre in a day
- TSP : 230 micrograms / cubic metre in a day
- Smoke density (Turbo): Less than 3.5 m⁻¹
- Smoke density (without Turbo): or 2.5 m⁻¹

Transportation

International Standards



Passenger Car

Euro Standards	Nitrogen ox- ides (NO _x)	Total hydrocarbon +NO _x) THC+NO _x	Particulate Matter (PM)	Particle Num- ber (PN)
	mg/km	mg/km	mg/km	#/km
Euro 1	-	970	140	-
Euro 2	-	700	80–100	-
Euro 3	500	560	50	-
Euro 4	250	300	25	-
Euro 5a	180	230	5	-
Euro 5b	180	230	5	6 × 10 ¹¹
Euro 6	80	170	5	6 × 10 ¹¹

Heavy-Duty Vehicles

Euro Standards	NO _x	THC	PM	PN
	g/kWh	g/kWh	mg/kWh	#/kWh
Euro 1	8	1.23	360	-
Euro 2a	7	1.1	250	-
Euro 2b	7	1.1	150	-
Euro 3	5	0.66	100	-
Euro 4	3.5	0.46	20	-
Euro 5	2	0.46	20	-
Euro 6	0.4	0.13	10	6 × 10 ¹¹

Where to start?

Core Areas of Concern



Increase usage of Natural lighting



Having open green areas for staff / client use

Monitoring of water and electricity usage

Monitoring of internal air quality



Increased Use Of Renewable Energy Resources

Transforming The Modes Of Transport

Use Of Standardized Sustainable Materials



Reusing And Repurposing Waste Products

Ensuring Brand Responsibility And Transparency



International Reporting Format

In 2021, SASB and the International Integrated Reporting Council (IIRC) was consolidated to form the Value Reporting Foundation (VRF)

In June 2022, further consolidation of the Carbon Disclosure Standards Board (CDSB) and VRF into the International Financial Reporting Standards (IFRS) finalized.

In July 2023, ISSB released its S1 General Disclosures Standards and its S2 Climate-related disclosures, IFRS oversees TCFD monitoring.



Global Reporting trends of SASB

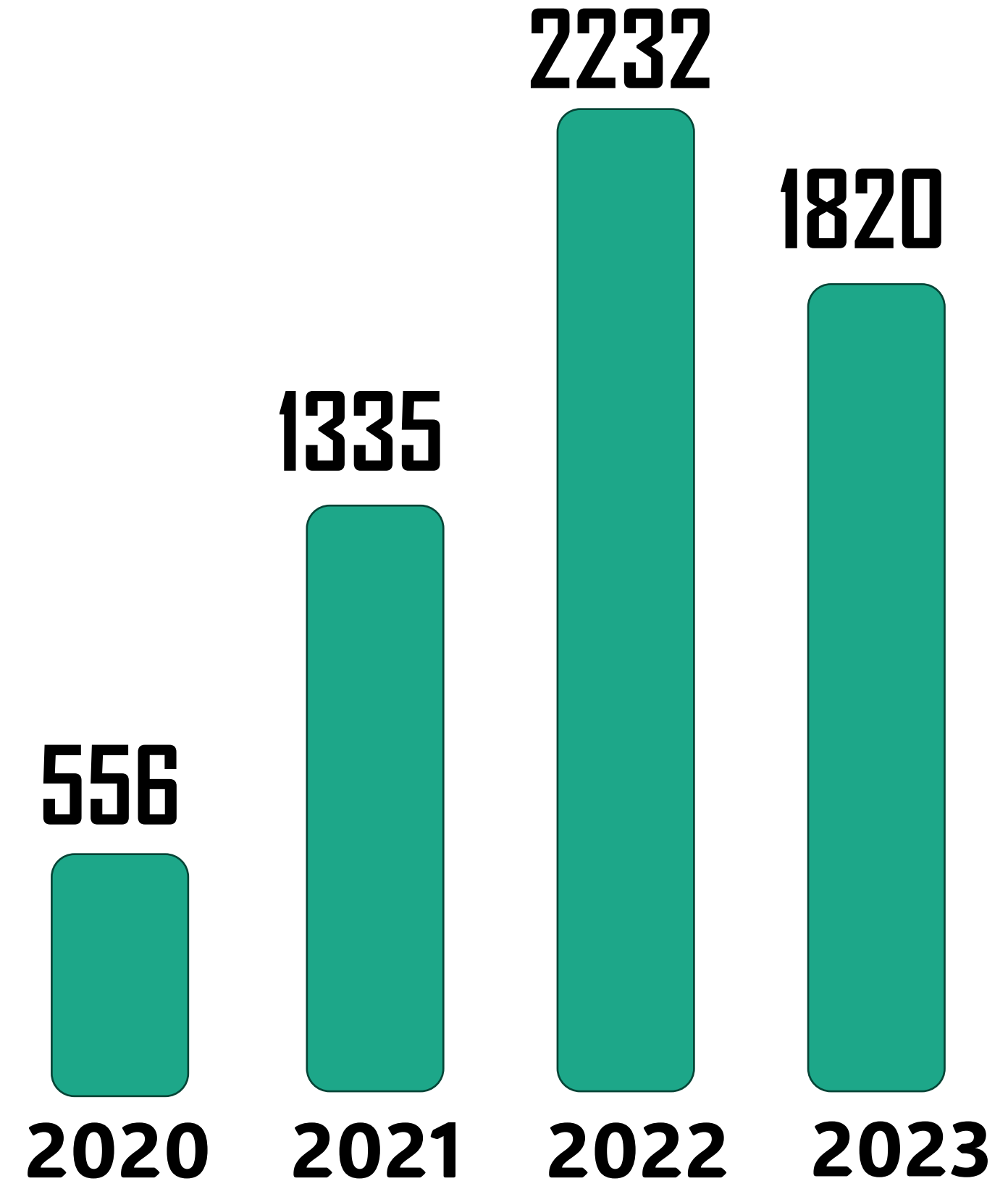
As of 2023 25% of companies reported using Corporate Responsibility Reports

18% reported using Sustainability Reports

12.9% of companies in 2023 reported using ESG Reports

Majority of Reports were from the US(44.2%) and Europe (11.7%).

ME & Africa accounted for 0.8%



SASB Disclosures

Environment

- GHG Emissions
- Air Quality
- Energy Management
- Water & Wastewater Management
- Waste & Hazardous Materials Management
- Ecological Impacts

Leadership & Governance

- Business Ethics
- Competitive Behavior
- Management of the Legal & Regulatory Environment
- Critical Incident Risk Management
- Systemic Risk Management



Business Model & Innovation

- Product Design & Lifecycle Management
- Business Model Resilience
- Supply Chain Management
- Materials Sourcing & Efficiency
- Physical Impacts of Climate Change

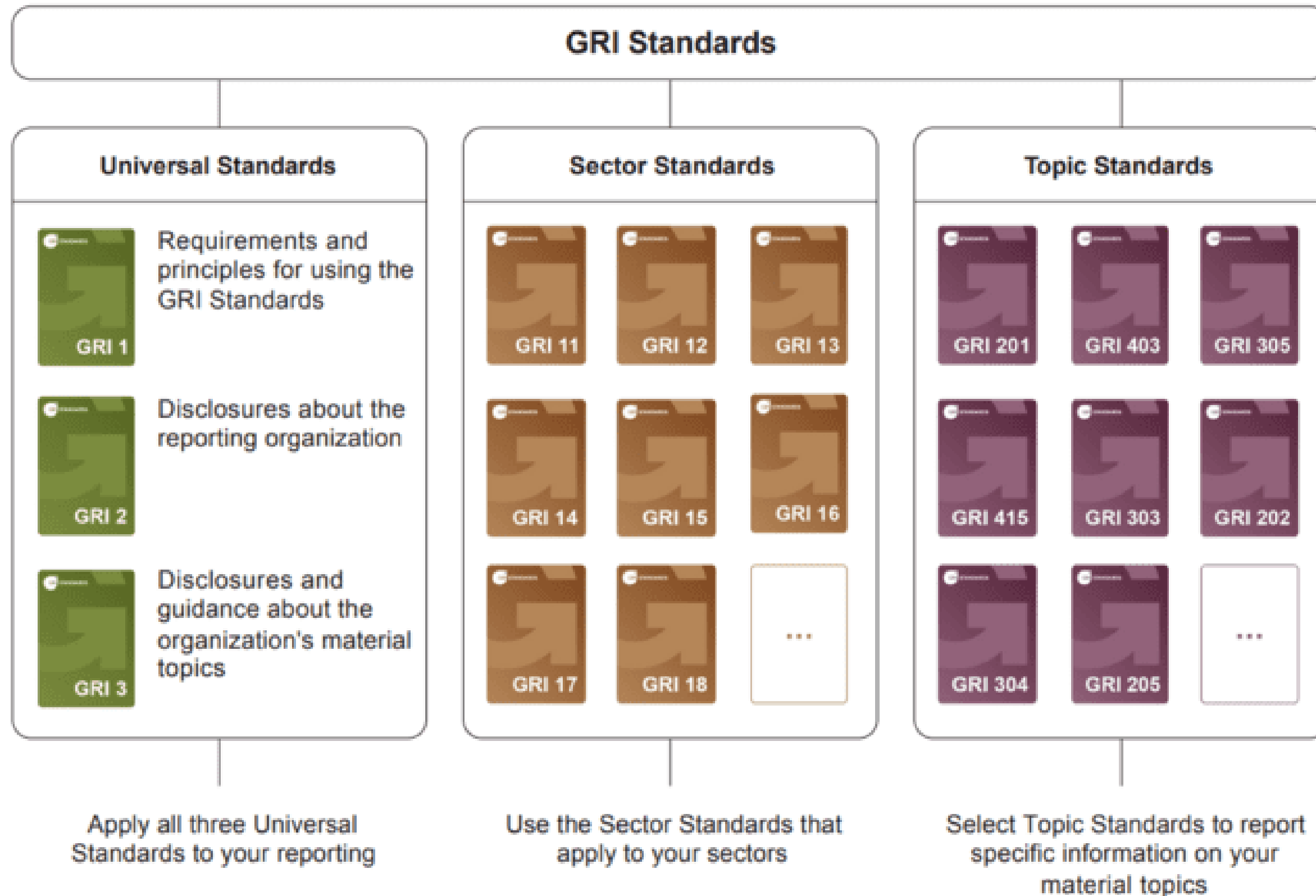
Social Capital

- Human Rights & Community Relations
- Customer Privacy
- Data Security
- Access & Affordability
- Product Quality & Safety
- Customer Welfare
- Selling Practices & Product Labeling

Human Capital

- Labor Practices
- Employee Health & Safety
- Employee Engagement, Diversity & Inclusion

GRI Reporting Standards





GRI Report Sample

Social and employee-related matters

Social relations					
Organization of social dialogue, including procedures to inform and consult with employees and workers and negotiate with them.	103	Management approach for Employer-worker relations	156	Social dialogue with employees	
Percentage of employees covered by collective agreement by country.	102-41	Collective bargaining agreements	156	Social dialogue with employees	
Balance of collective agreements, particularly with regard to health and safety at work.	403-1	Workers representation in formal joint management -worker health and safety committees	156	Social dialogue with employees	
Training					
Policies implemented in training.	103	Management Approach for Training and Education	157	Training and professional development	
Total number of training hours by professional category.	404-1	Average hours of training per year per employee	157	Training and professional development	
Universal accessibility for disabled persons					
Universal accessibility for disabled persons.	103	Management approach	164	Integration and Universal Accessibility of disabled people	
Equality					
Measures taken to promote equality of treatment and opportunity between men and women.			154	Equality and Diversity	
Equality plans (Chapter III of Act 3/2007, of 22 March, for effective equality of men and women), measures taken to promote employment, protocols against sexual harassment and on account of sex, integration and universal accessibility of disabled persons.	103	Management approach for Diversity and Equality of opportunities + Non discrimination	154	Equality and Diversity	
The policy against all kind of discrimination and, as the case may be, diversity management.			154	Equality and Diversity	

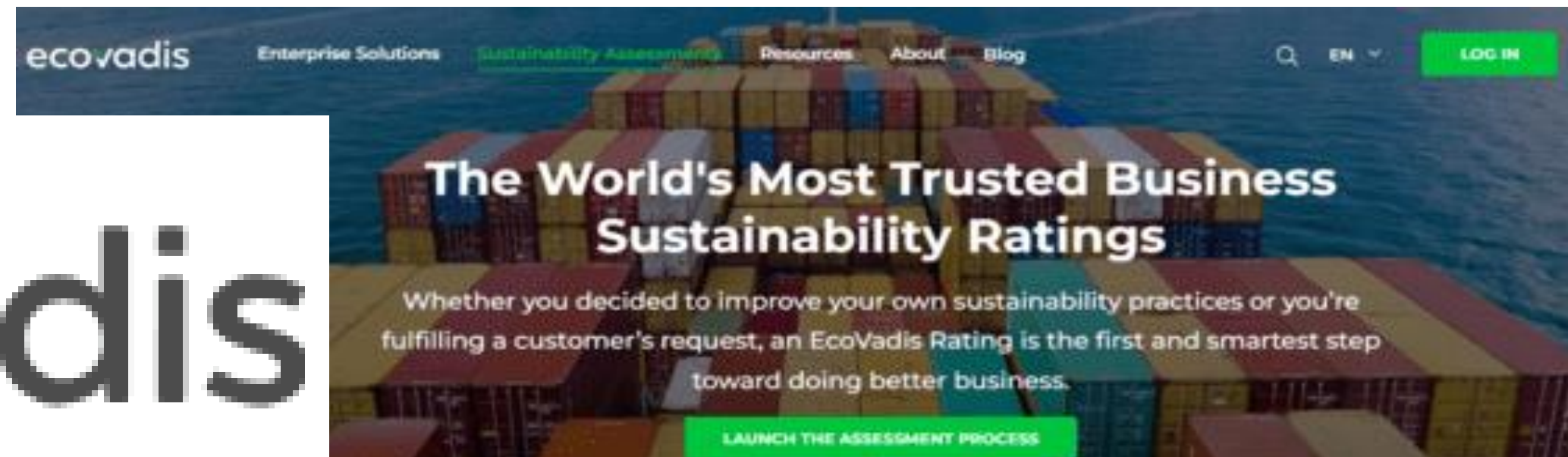
Human Rights

Application of due diligence procedures in relation to human rights.		Management approach for assessment of human rights + Freedom of association and collective bargaining + Child labor + Forced or compulsory labor	152	Respect for Human Rights
Prevention of risks of breach of human rights and, as the case may be, measures to mitigate, manage and repair possible abuse committed.	103		153	Initiatives for the Protection of Human Rights
Reported cases of breach of human rights.			-	Respect for Human Rights
Promotion of and compliance with the provisions of the fundamental treaties of the World Labour Organization related to respect for freedom of association and the right to collective bargaining.	406-1	Incidents of discrimination and corrective actions taken	153	NH Hotel Group Code of Conduct
Elimination of discrimination in employment and occupation.			153	NH Hotel Group Code of Conduct
Elimination of forced or compulsory labor.	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	153	NH Hotel Group Code of Conduct
Effective abolition of child labor.	408-1	Operations and suppliers at significant risk for incidents of child labor	153	NH Hotel Group Code of Conduct

Corruption and Bribery

Measures taken to prevent corruption and bribery.	103	Management Approach Anti-corruption	152	Prevention of Corruption, Bribery and Money Laundering
	205-2	Communication and training about anti-corruption policies and procedures	152	Prevention of Corruption, Bribery and Money Laundering
Measures to fight money laundering.	205-2	Communication and training about anti-corruption policies and procedures	152	Measures against money laundering
Contributions to not-for-profit foundations and entities.	413-1	Operations with local community engagement, impact assessments and development programs	170	Commitment to the Community

ecovadis



1. Register Online

Create a company profile, specify your business activity, contact information, etc. This information is then used to customize a questionnaire specifically for you.



2. Answer Questionnaire

Answer the questionnaire & upload documents (e.g., certifications). It is secure, confidential, and multilingual with a support team ready to help.



3. Expert Analysis

EcoVadis analysts distill your answers into a Scorecard. This is an independent, questionnaire and document-based management system assessment.



4. Your Rating

Access your Scorecard results online. Share results, collaborate directly with customers, improve your performance, and broadcast your success.

<p>^ General (7)</p> <p>Endorsements</p> <p>Sustainability Endorsements</p> <p>Certifications</p> <p>Sustainability Certifications</p> <p>External Sustainability Audit</p> <p>Reporting</p> <p>Sustainability Reporting Quality Factors</p> <p>SDGs</p> <p>Company information [Optional]</p>	<p>^ Labor & Human Rights (8)</p> <p>Policies</p> <p>Labor & Human Rights Policies</p> <p>Subcontractor Health & Safety Policy</p> <p>Living Wage Declaration</p> <p>Measures</p> <p>Migrant Worker Declaration</p> <p>Child Labor, Forced Labor & Human Trafficking Measures</p> <p>Recruitment Fees Declaration</p> <p>Employee Health & Safety Measures</p> <p>Working Conditions Measures</p> <p>Social Dialogue Measures</p> <p>Career Management & Training Measures</p> <p>Diversity, Equity & Inclusion Measures</p> <p>Social Dialogue Declaration</p>	<p>^ Environment (6)</p> <p>Policies</p> <p>Environmental Policies</p> <p>Measures</p> <p>Energy Consumption & GHG Measures</p> <p>Waste Management Measures</p> <p>Customer Health & Safety Measures</p> <p>Environmental Services & Advocacy Measures [Optional]</p> <p>Biodiversity-Sensitive Areas Declaration</p> <p>Coverage</p> <p>Environmental Actions Coverage</p> <p>Reporting</p> <p>CDP</p> <p>Environmental Reporting</p> <p>GHG Reporting</p> <p>Environmental Reporting</p>	<p>^ Sustainable Procurement (2)</p> <p>Policies</p> <p>Sustainable Procurement Policies</p> <p>Measures</p> <p>Sustainable Procurement Measures</p> <p>Supplier Diversity Measures</p> <p>Supplier Diversity Scope Declaration</p> <p>Coverage</p> <p>Sustainable Procurement Reporting and Coverage</p> <p>Carbon</p> <p>Carbon Supply Chain Monitoring</p> <p>Carbon Supply Chain Actions</p>	<p>^ Ethics (2)</p> <p>Policies</p> <p>Ethics Policies</p> <p>Measures</p> <p>Anti-corruption Measures</p> <p>Responsible Information Management Measures</p> <p>Coverage</p> <p>Ethics Reporting</p>
		<p>EHS Management Consultants</p>		

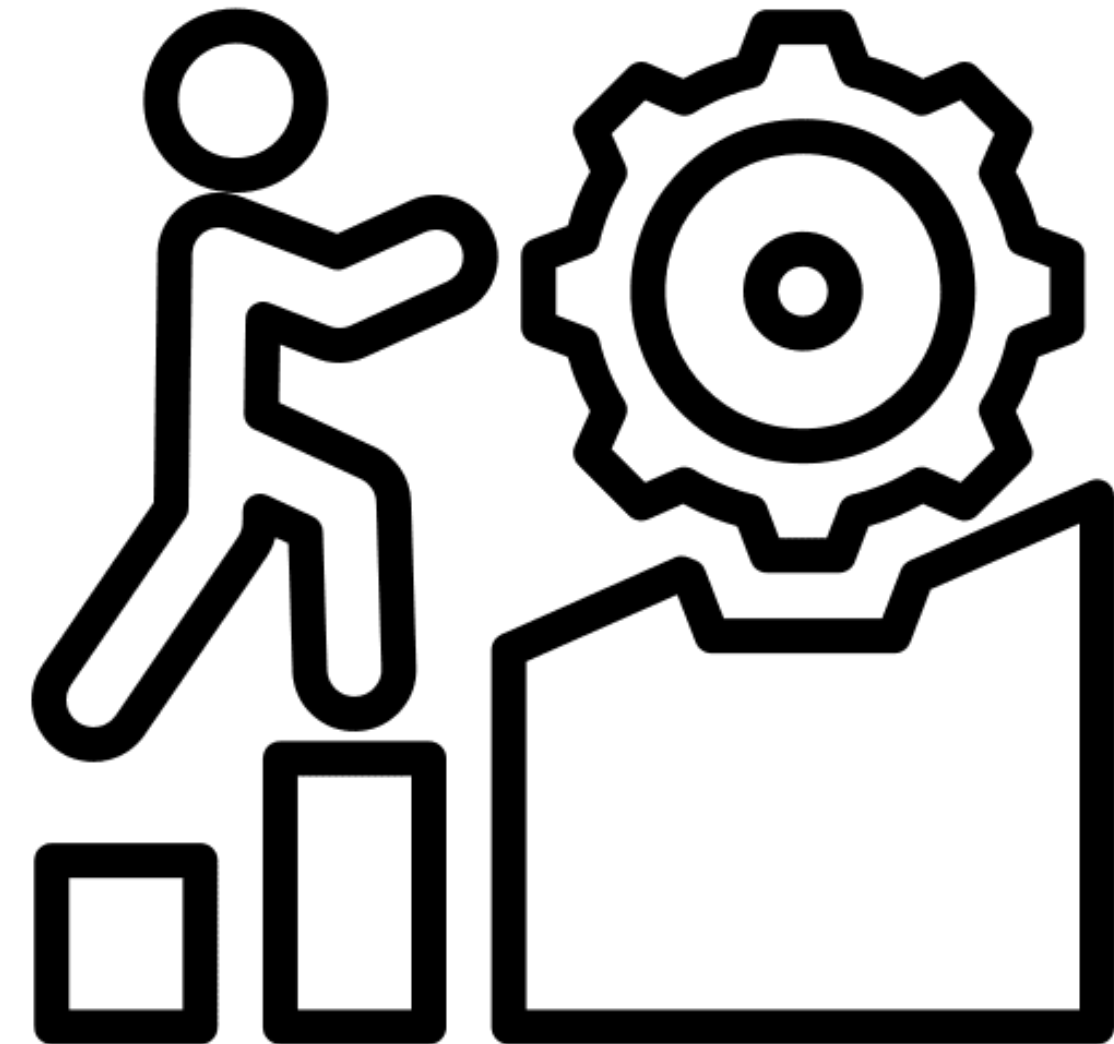
Challenges in Reporting

Involvement of Stakeholders

Data overload

Data Collection

Dynamic Goals



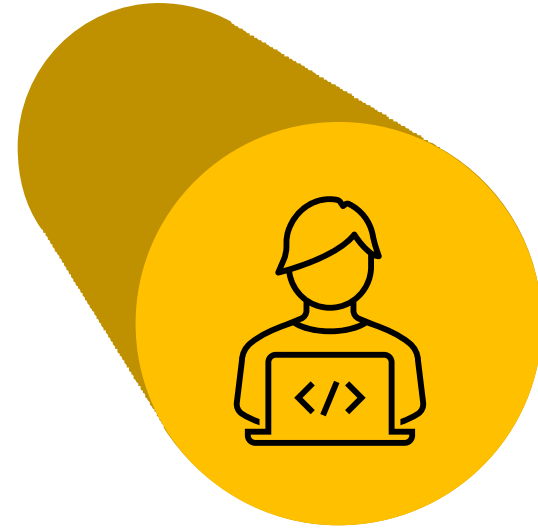
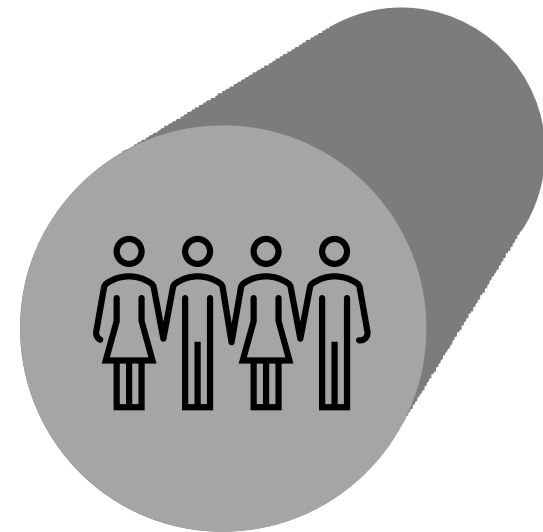
In Summary

Facility Audit

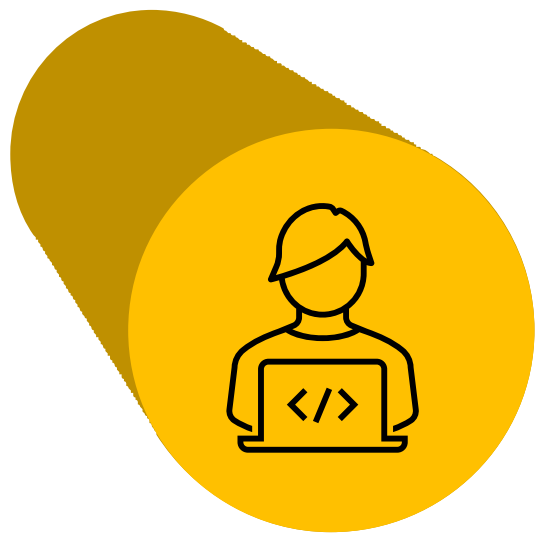


Documentation

Personnel Wellbeing



Obtaining certifications



Obtaining Certification



Design/ Concept Stage Assessments



بمزرعيا
لائحة شروط المباني الخضراء لإمارة رأس الخيمة
Ras Al Khaimah Green Building Regulations



Project Management

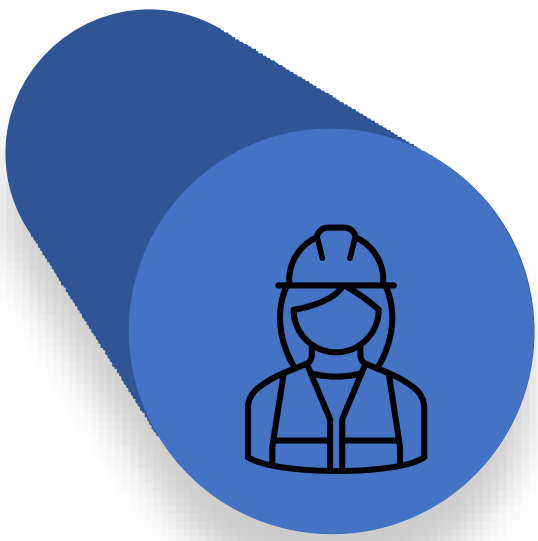


ISO: 20121
Sustainable Event Management Systems



Responsible Production and Sourcing



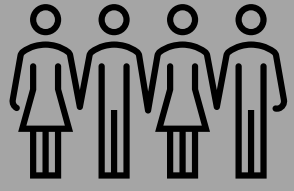


Facility Audit

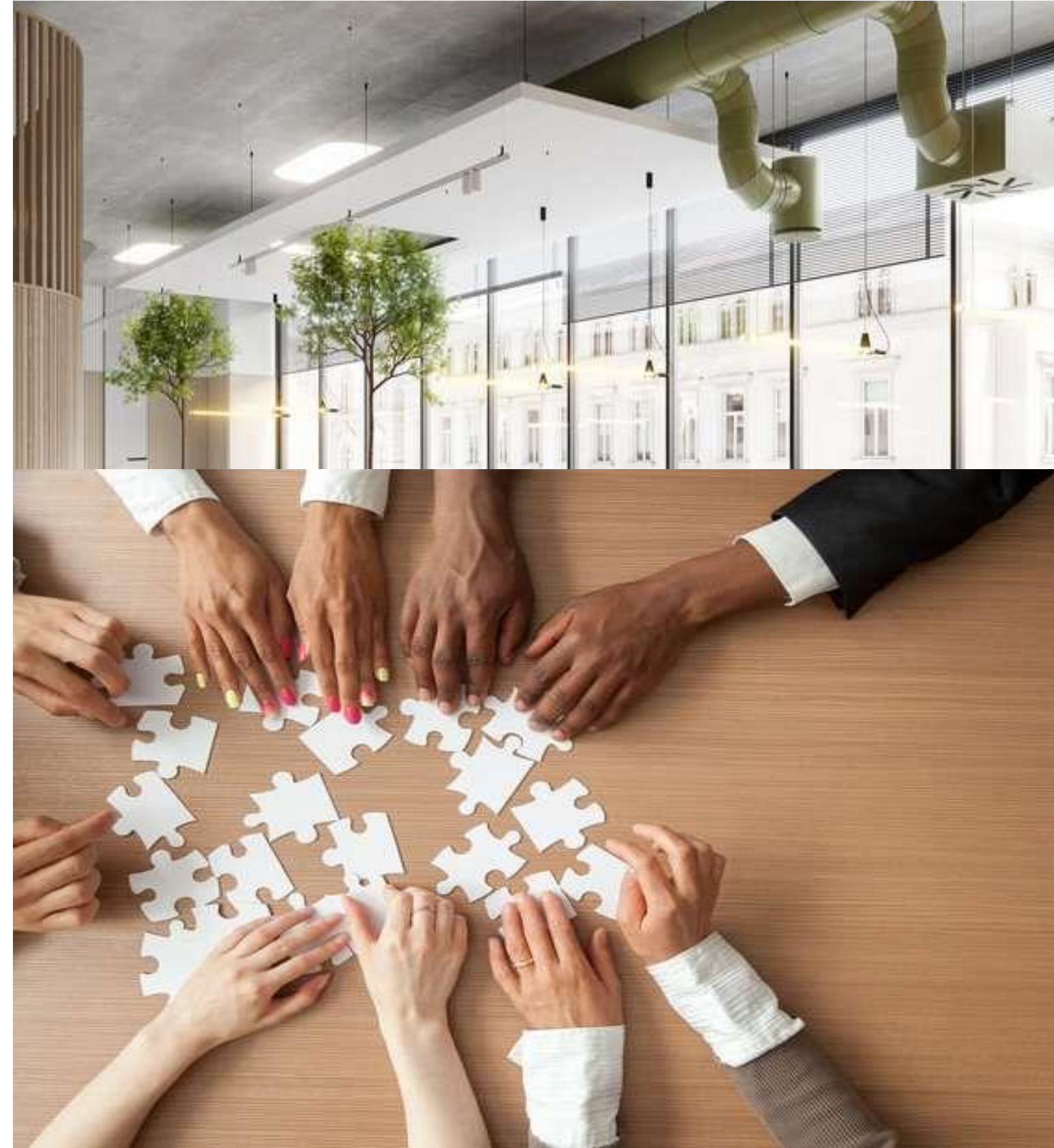
Environmental Impact Assessment

Resource Management

Waste Management



Personnel Wellbeing





Documentation

ISO 20121 Sustainable Events



ISO: 20121
*Sustainable Event
Management Systems*



ISO 14001 Environmental Management

ISO 45001 Occupational Health and Safety



ISO 37000 Anti- Bribery Management

ISO 50001 Energy Management



ISO 26000 Social Responsibility



Any Questions?

