

Overview of Economic and Environmental Sustainability Indicators for Businesses

Prepared for Eugene Mayor Piercy's Sustainable Business Initiative

Very few small to medium sized enterprises have environmental and economic sustainability indicators available to the public. However, many publicly owned corporations have a set of sustainability indicators. The Global Reporting Initiative (GRI) created a set of guidelines for establishing sustainability performance indicators for corporations. The International Network for Environmental Management (INEM) also has a handbook for how to establish environmental sustainability indicators for smaller businesses. Some examples of excerpts from this handbook are included below.

This document also provides a description of the GRI guidelines with examples of how corporations are using them today along with a number of examples of independently created guidelines. Although some of the guidelines are not directly applicable to many of the smaller businesses found in Eugene, they can be used as a jumping off point for creating a set of sustainability indicators that are directly useful for local businesses.

Economic Sustainability Indicators for Individual Businesses

GRI guidelines for economic sustainability indicators:

Financial indicators focus primarily on the profitability of an organization for the purpose of informing its management and shareholders. By contrast, economic indicators in the sustainability reporting context focus more on the manner in which an organization affects the stakeholders with whom it has direct and indirect economic interactions. Therefore, the focus of economic performance measurement is on how the economic status of the stakeholder changes as a consequence of the organization's activities, rather than on changes in the financial condition of the organization itself. In some cases, existing financial indicators can directly inform these assessments. However, in other cases, different measures may be necessary, including the re-casting of traditional financial information to emphasize the impact on the stakeholder. In this context, shareholders are considered one among several stakeholder groups. (GRI Sustainability Reporting Guidelines, 2002 p.46)

The following is an outline of GRI economic performance indicators:¹

Economic Performance Indicators

Core Indicators	Additional Indicators
DIRECT ECONOMIC IMPACTS	
<i>Customers</i>	
<p>Monetary flow indicator: EC1. Net sales. As listed in the profile section under 2.8.</p> <hr/> <p>EC2. Geographic breakdown of markets. For each product or product range, disclose national market share by country where this is 25% or more. Disclose market share and sales for each country where national sales represent 5% or more of GDP.</p>	
<i>Suppliers</i>	
<p>Monetary flow indicator: EC3. Cost of all goods, materials, and services purchased.</p> <hr/> <p>EC4. Percentage of contracts that were paid in accordance with agreed terms, excluding agreed penalty arrangements. Terms may include conditions such as scheduling of payments, form of payment, or other conditions. This indicator is the percent of contracts that were paid according to terms, regardless of the details of the terms.</p>	<p>EC11. Supplier breakdown by organisation and country. List all suppliers from which purchases in the reporting period represent 10% or more of total purchases in that period. Also identify all countries where total purchasing represents 5% or more of GDP.</p>
<i>Employees</i>	
<p>Monetary flow indicator: EC5. Total payroll and benefits (including wages, pension, other benefits, and redundancy payments) broken down by country or region. This remuneration should refer to current payments and not include future commitments. (Note: Indicator LA9 on training also offers information on one aspect of the organisation's investment in human capital.)</p>	

Economic Performance Indicators (continued)

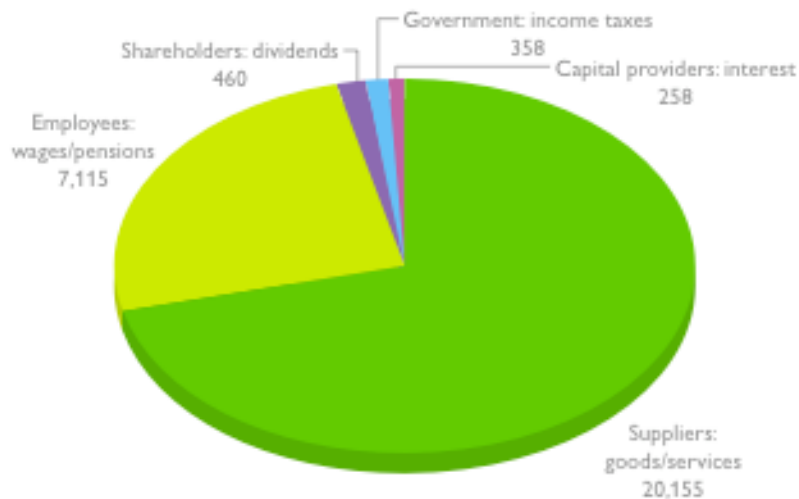
Core Indicators	Additional Indicators
<i>Providers of Capital</i>	
<p>Monetary flow indicator: EC6. Distributions to providers of capital broken down by interest on debt and borrowings, and dividends on all classes of shares, with any arrears of preferred dividends to be disclosed. This includes all forms of debt and borrowings, not only long-term debt.</p> <hr/> <p>EC7. Increase/decrease in retained earnings at end of period. (Note: the information contained in the profile section (2.1–2.8) enables calculation of several measures, including ROACE (Return On Average Capital Employed)).</p>	
<i>Public Sector</i>	
<p>Monetary flow indicators: EC8. Total sum of taxes of all types paid broken down by country.</p> <hr/> <p>EC9. Subsidies received broken down by country or region. This refers to grants, tax relief, and other types of financial benefits that do not represent a transaction of goods and services.</p> <p>Explain definitions used for types of groups.</p> <hr/> <p>EC10. Donations to community, civil society, and other groups broken down in terms of cash and in-kind donations per type of group.</p>	<p>EC12. Total spent on non-core business infrastructure development. This is infrastructure built outside the main business activities of the reporting entity such as a school, or hospital for employees and their families.</p>
INDIRECT ECONOMIC IMPACTS	
	<p>EC13. The organisation's indirect economic impacts. Identify major externalities associated with the reporting organisation's products and services.</p>

Canon Inc. uses the following indicators to measure economic sustainability:

GRI Core Indicator	Description of indicator	Canon's results from '01 to '04
EC1	Net sales	Increased from \$2.7 million to \$3.5 million
EC 6	Distribution of providers of capital.	
EC7	Increase/decrease in retained earnings at the end of the period	Increased from \$900,000 to \$1.7 million
EC8	Total sum of taxes paid	Increased from \$87,000 to \$194,000

Phillips Inc. presents economic sustainability indicators as follows:ⁱⁱ

Distribution of economic benefits 2004
in millions of euros



Environmental Sustainability Indicators for Individual Businesses

GRI Environmental Sustainability Guidelines:

The environmental dimension of sustainability concerns an organization's impacts on living and non-living natural systems, including ecosystems, land, air and water. The environmental dimension of sustainability has achieved the highest level of consensus among the three dimensions of sustainability reporting.

In reporting on environmental indicators, reporting organizations are also encouraged to keep in mind the principle of sustainability context. With respect to the environmental measures in the report, organizations are encouraged to relate their individual performance to the broader ecological systems within which they operate. For example, organizations could seek to report their pollution output in terms of the ability of the environment (local, regional, or global) to absorb the pollutants (GRI Sustainability Reporting Guidelines, 2002 p.46).

The INEM presented the following examples of sector specific environmental indicators for small businesses:

Examples of sectoral indicators

Large-scale retailing

- Grammes of packaging/kg of product sold
- Litres of maintenance product/Year/ m² surface area
- Percentage of organic products/Total

Institutional catering - catering

- Grammes of waste/Meal supplied
- kWh of electricity/Meal prepared
- Number of employees with environmental training/Total
- Percentage of healthy meals/Total number of meals Marketing

Garages/micro-businesses

- Kg of special waste/Car repaired
- Number of HVLP paint sprays/Total number of paint sprays
- Number of complaints from the neighbours/ 100 cars repaired
- ppm hydrocarbons/dm³ soil
- Environmental costs/Invoice for car maintenance

Thermoplastics

- m³ of cooling water/Tonne of materials used
- kWh of electricity used/Injection machine hours
- Regulations observed/Total number of regulations to be observed
- Cost of waste removal/Total turnover

Local authorities

- Volume of recycled paper/Volume of paper used
- Number of products purchased on the basis of environmental criteria
- Number of zones with noise levels > 70 dBA

Banks

- kWh of electricity/Surface area of offices in m²
- Number of computers recycled/Total number of decommissioned computers
- Km of business travel/Person/Year
- Profit from ETHIBEL-certified investment companies
- Number of environment-related financial products

Textile factories

- m³ of industrial water/m² of fabric produced
- m² of original organic cotton fabric/Total m² of fabric
- Number of open days/Year
- mgr O₂/litre of water from the neighboring river
- Number of months of economic return on the ecological investment

Cultural establishments

- kg of environmentally-friendly paint used for decoration/kg of total paint
- Number of staff environmental suggestions/Total suggestions
- kWh of electricity/Seating capacity
- Volume of hazardous goods used/Artistic production

(Excerpt from: Your environmental management control panel Environmental performance indicators Management and communications tools

http://www.inem.org/htdocs/inem_tools.html)

GRI Environmental Sustainability Indicators:

Environmental Performance Indicators

Core Indicators	Additional Indicators
<i>Materials</i>	
<p>EN1. Total materials use other than water, by type. Provide definitions used for types of materials. Report in tonnes, kilograms, or volume.</p> <hr/> <p>EN2. Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation. Refers to both post-consumer recycled material and waste from industrial sources. Report in tonnes, kilograms, or volume.</p>	
<i>Energy^a</i>	
<p>EN3. Direct energy use segmented by primary source. Report on all energy sources used by the reporting organisation for its own operations as well as for the production and delivery of energy products (e.g., electricity or heat) to other organisations. Report in joules.</p> <hr/> <p>EN4. Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organisation (e.g., electricity or heat). Report in joules.</p>	<p>EN17. Initiatives to use renewable energy sources and to increase energy efficiency.</p> <hr/> <p>EN18. Energy consumption footprint (i.e., annualised lifetime energy requirements) of major products. Report in joules.</p> <hr/> <p>EN19. Other indirect (upstream/downstream) energy use and implications, such as organisational travel, product lifecycle management, and use of energy-intensive materials.</p>
<i>Water^a</i>	
<p>EN5. Total water use.</p>	<p>EN20. Water sources and related ecosystems/habitats significantly affected by use of water. Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends.</p> <hr/> <p>EN21. Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources. Breakdown by region.</p> <hr/> <p>EN22. Total recycling and reuse of water. Include wastewater and other used water (e.g., cooling water).</p>
<i>Biodiversity</i>	
<p>EN6. Location and size of land owned, leased, or managed in biodiversity-rich habitats. Further guidance on biodiversity-rich habitats may be found at www.globalreporting.org (forthcoming).</p> <hr/> <p>EN7. Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, fresh-water, and marine environments.</p>	<p>EN23. Total amount of land owned, leased, or managed for production activities or extractive use.</p> <hr/> <p>EN24. Amount of impermeable surface as a percentage of land purchased or leased.</p> <hr/> <p>EN25. Impacts of activities and operations on protected and sensitive areas. (e.g., IUCN protected area categories 1–4, world heritage sites, and biosphere reserves).</p> <hr/> <p>EN26. Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored. Identify type of habitat affected and its status.</p>

Environmental Performance Indicators (continued)

Core Indicators	Additional Indicators
<i>Biodiversity (continued)</i>	
	<p>EN27. Objectives, programmes, and targets for protecting and restoring native ecosystems and species in degraded areas.</p> <p>EN28. Number of IUCN Red List species with habitats in areas affected by operations.</p> <p>EN29. Business units currently operating or planning operations in or around protected or sensitive areas.</p>
<i>Emissions, Effluents, and Waste</i>	
<p>EN8. Greenhouse gas emissions. (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆). Report separate subtotals for each gas in tonnes and in tonnes of CO₂ equivalent for the following:</p> <ul style="list-style-type: none"> • direct emissions from sources owned or controlled by the reporting entity • indirect emissions from imported electricity heat or steam <p>See WRI-WBCSD Greenhouse Gas Protocol.</p> <p>EN9. Use and emissions of ozone-depleting substances. Report each figure separately in accordance with Montreal Protocol Annexes A, B, C, and E in tonnes of CFC-11 equivalents (ozone-depleting potential).</p> <p>EN10. NO_x, SO_x, and other significant air emissions by type. Include emissions of substances regulated under:</p> <ul style="list-style-type: none"> • local laws and regulations • Stockholm POPs Convention (Annex A, B, and C) – persistent organic pollutants • Rotterdam Convention on Prior Informed Consent (PIC) • Helsinki, Sofia, and Geneva Protocols to the Convention on Long-Range Trans-boundary Air Pollution <p>EN11. Total amount of waste by type and destination. “Destination” refers to the method by which waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method.</p> <p>EN12. Significant discharges to water by type. See GRI Water Protocol.</p> <p>EN13. Significant spills of chemicals, oils, and fuels in terms of total number and total volume. Significance is defined in terms of both the size of the spill and impact on the surrounding environment.</p>	<p>EN30. Other relevant indirect greenhouse gas emissions. (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆). Refers to emissions that are a consequence of the activities of the reporting entity, but occur from sources owned or controlled by another entity. Report in tonnes of gas and tonnes of CO₂ equivalent. See WRI-WBCSD Greenhouse Gas Protocol.</p> <p>EN31. All production, transport, import, or export of any waste deemed “hazardous” under the terms of the Basel Convention Annex I, II, III, and VIII.</p> <p>EN32. Water sources and related ecosystems/habitats significantly affected by discharges of water and runoff. Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends. See GRI Water Protocol.</p>
<i>Suppliers</i>	
	<p>EN33. Performance of suppliers relative to environmental components of programmes and procedures described in response to Governance Structure and Management Systems section (Section 3.16).</p>
<i>Products and Services</i>	
<p>EN14. Significant environmental impacts of principal products and services. Describe and quantify where relevant.</p> <p>EN15. Percentage of the weight of products sold that is reclaimable at the end of the products’ useful life and percentage that is actually reclaimed. “Reclaimable” refers to either the recycling or reuse of the product materials or components.</p>	

Companies choose the indicators that fit their business model best. For example, Canon inc. chose to monitor the following environmental indicators:ⁱⁱⁱ

GRI Indicator	Canon's performance
EN1	Total materials use other than water, by type. Provide definitions used for types of materials. Report in tonnes, kilograms, or volume.
EN2	Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation. Refers to both post-consumer recycled material and waste from industrial sources. Report in tonnes, kilograms, or volume.
EN3	Direct energy use segmented by primary source. Report on all energy sources used by the reporting organisation for its own operations as well as for the production and delivery of energy products (e.g., electricity or heat) to other organisations. Report in joules.
EN4	Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organisation (e.g., electricity or heat). Report in joules.
EN8	Greenhouse gas emissions. (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆). Report separate subtotals for each gas in tonnes and in tonnes of CO ₂ equivalent for the following: <ul style="list-style-type: none"> • direct emissions from sources owned or controlled by the reporting entity • indirect emissions from imported electricity heat or steam See WRI-WBCSD Greenhouse Gas Protocol.
EN9	Use and emissions of ozone-depleting substances. Report each figure separately in accordance with Montreal Protocol Annexes A, B, C, and E in tonnes of CFC-11 equivalents (ozone-depleting potential).
EN10	NO _x , SO _x , and other significant air emissions by type. Include emissions of substances regulated under: <ul style="list-style-type: none"> • local laws and regulations • Stockholm POPs Convention (Annex A, B, and C) – persistent organic pollutants • Rotterdam Convention on Prior Informed Consent (PIC) • Helsinki, Sofia, and Geneva Protocols to the Convention on Long-Range Trans-boundary Air Pollution
EN13	Significant spills of chemicals, oils, and fuels in terms of total number and total volume. Significance is defined in terms of both the size of the spill and impact on the surrounding environment.
EN14	Significant environmental impacts of principal products and services. Describe and quantify where relevant.
EN15	Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed. "Reclaimable" refers to either the recycling or reuse of the product materials or components

Example of how one of the indicators is assessed and reported (EN2)

● Waste Reduction Results and Goals

	2000	2001	2002	2003	2004	2005 (target)
Landfill Waste (t)	4,331	3,779	3,277	2,635	1,809	—
Waste Recycled (t)	36,190	32,452	27,187	25,623	24,444	—
Commodities (t)	22,457	24,533	24,076	27,772	28,045	—
Amount Reduced (t)	18,722	15,936	10,412	11,307	10,924	—
Total Waste Generation (t)	81,700	76,699	64,953	67,337	65,222	61,275
Internally Recycled Waste (t)	1,951	1,564	1,539	1,659	11,630	—
Internal Recycling Rate (%)	2.3	2.0	2.3	2.4	15.1	3.2

* Resource conservation definitions:

Internal recycling rate = $\frac{\text{Amount of internally recycled waste}}{\text{Total waste generation} + \text{Amount of internally recycled waste}} \times 100 (\%)$

Total waste generation: Amount of waste excluding internally recycled waste

Internally recycled waste: Amount of recycled waste used by Canon after externally discharged waste is transferred to outside contractors, appropriately processed, and returned to Canon for use.

Landfill waste: Excludes waste disposed of according to administrative guidance

Canon sustainability report, 2005, p. 62

Other Examples of Corporate Environmental Sustainability Indicators:

Starbucks' Environmental Sustainability Indicators:^{iv}

Progress Report on 2004 Goals – Environment	
GOALS	
To conduct a climate inventory to better understand our greenhouse gas emissions.	●
To increase the number of our U.S. stores participating in a recycling program by 10%.	◐
To increase our purchases of in-store furniture made from wood certified by the Forest Stewardship Council.	●
To participate with the Paper Working Group to encourage the increased use of environmentally preferable paper.	●
To develop a strategy for incorporating post-consumer fiber in our cups.	●
To achieve target of 30% post-consumer fiber content in our paper purchases.	○
To pursue sustainable packaging solutions through participation in the Sustainable Packaging Coalition.	●
To launch an "energy test bed" in a sampling of our stores to monitor all energy usage and test new conservation initiatives.	○
KEY: ● ACHIEVED ◐ MAKING PROGRESS ○ DID NOT ACHIEVE	

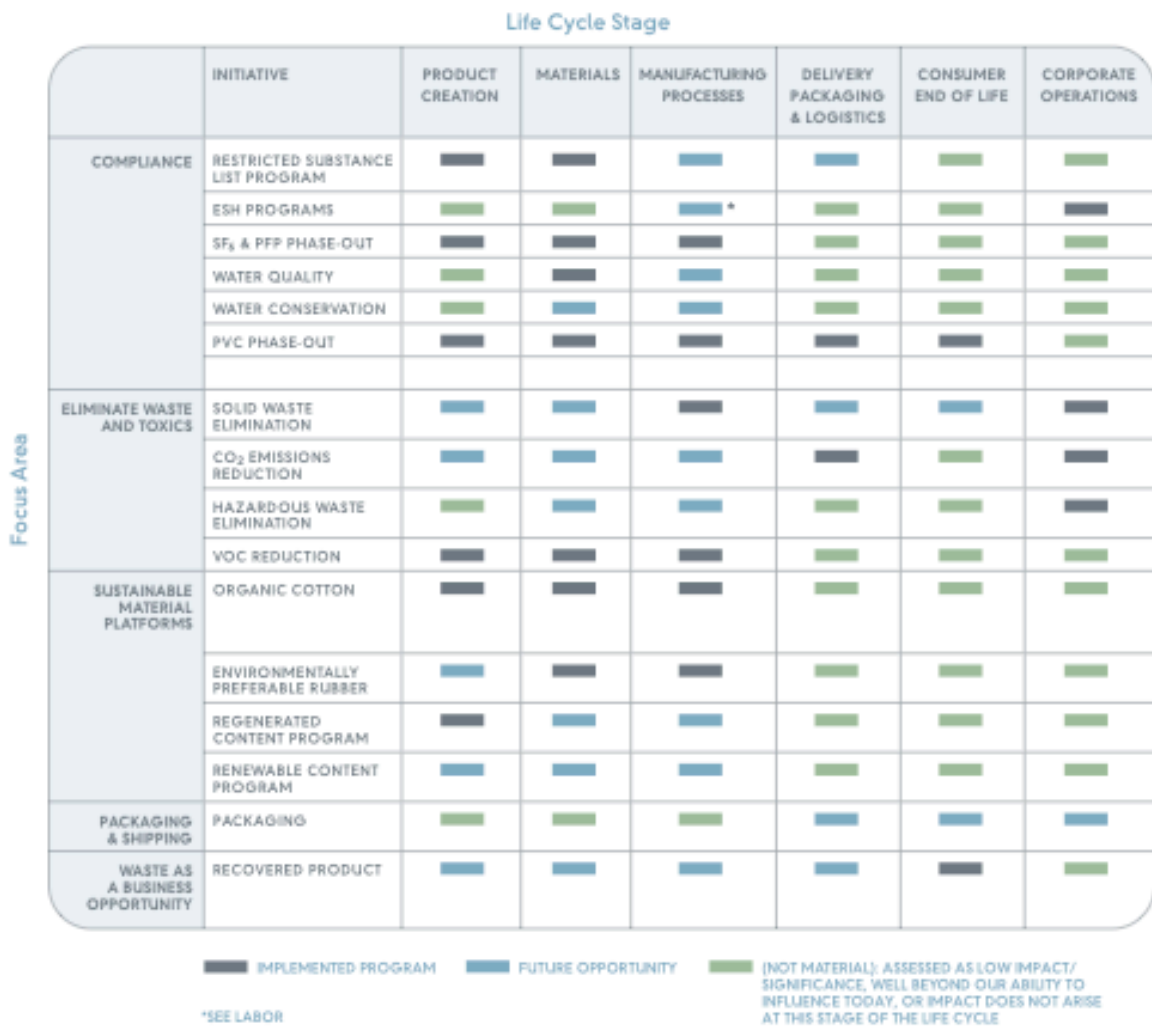
Ford Company's Sustainability Indicator Reporting:^v

Measuring our progress – 2004 at a glance	Better than '03 ↗ Same as '03 → Worse than '03 ↘
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ENVIRONMENT	INDICATOR	2003	2004	TREND	PAGE
We will respect the natural environment and help preserve it for future generations.	Ford U.S. fleet fuel economy, combined car and truck, miles per gallon	23.6	22.8	↘	40
	Ford U.S. fleet CO ₂ emissions, combined car and truck, grams per mile	375	386	↘	40
	European CO ₂ performance, percent of 1995 base (1995 base = 100 percent)				
	Ford	82	80	↗	40
	Jaguar	77	63	↗	40
	Land Rover	87	86	↗	40
	Volvo	91	89	↗	40
	Worldwide facility energy consumption, trillion BTUs	83.2	80.3	↗	40
	Worldwide facility energy consumption per vehicle, million BTUs	13.4	12.7	↗	40
	Worldwide facility CO ₂ emissions, million metric tonnes	8.5	8.4	↗	40
	Worldwide facility CO ₂ emissions per vehicle, metric tonnes	1.37	1.33	↗	41
	Energy Efficiency Index, percent	91.7	87.8	↗	41
	Global manufacturing water use, total, million cubic meters	90.3	81.8	↗	41

Nike has set of Environmental Initiatives they are working on implementing throughout the life cycle of their products. The diagram below charts their progress in each of these areas:^{vi}

Life Cycle Matrix of Environmental Initiatives



Each of these examples provides guidelines for developing a set of economic and environmental sustainability indicators for local businesses in Eugene. The endnotes

include references to the websites, which contain complete sustainability reports for each of these businesses.

ⁱ <http://www.globalreporting.org/guidelines/2002.asp>

ⁱⁱ <http://www.philips.com/about/sustainability/Index.html>

ⁱⁱⁱ <http://canon.com/environment/report/index.html>

^{iv} <http://www.starbucks.com/aboutus/csranualreport.asp>

^v <http://www.globalreporting.org/guidelines/reports/details.asp?ReportID=2905>

^{vi} <http://www.nike.com/nikebiz/nikebiz.jhtml?page=24>