AVIXA
Sustainability Advisory Group

SUSTAINABLE AV PRACTICES *for* **Integrators**

Building a Sustainable Future Through Innovation

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Building a Greener AV Industry

The AVIXA® Sustainability Advisory Group seeks to gather manufacturers, consultants and integrators to develop and promote a unified framework for reducing the environmental impact of the AV industry. By addressing the following goals, AVIXA can lead the way in creating a greener, more sustainable AV industry while fostering collaboration and innovation among stakeholders.

Goals for the AV Industry

In order to create a more sustainable and environmentally responsible AV industry, the AVIXA Sustainability Advisory Group has outlined a set of key goals. These objectives will guide our efforts to reduce environmental impact, foster collaboration, and drive innovation in sustainability. Here are the core goals that will help shape a greener future for the AV sector:

1. Develop and standardize industry best practices
2. Promote collaboration across the industry
3. Advance sustainable product design
4. Minimize carbon emissions
5. Establish lifecycle management best practices
6. Increase energy efficiency
7. Reduce electronic waste (e-waste)
8. Educate and train industry professionals
9. Encourage circular economy practices
10. Align global sustainable goals and frameworks (e.g., UN SDGs, GRI)
11. Measure and track sustainable performance
12. Empower end users with sustainable choices
13. Drive innovation in green technology
14. Advocate for industry accountability
15. Build a sustainable AV future

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This guide provides integrators with a practical and structured guide to incorporating sustainability principles into their daily operations, client engagement, and service delivery throughout the lifecycle of audiovisual systems. Its purpose is to help integrators adopt more responsible and resilient approaches aligned with international standards, without imposing unnecessary operational burdens or expectations beyond their scope.

This guide also clearly distinguishes between the responsibilities of integrators and those of manufacturers. While manufacturers are primarily responsible for product design, carbon footprint documentation, sustainable packaging, and the availability of technical information, integrators have more direct influence over areas such as efficient installation, responsible management of electronic waste, end-user education, informed equipment selection, and the configuration of systems that optimize energy consumption.

The ultimate goal is to equip integrators with practical tools that enable them to:

- Make more sustainable decisions in the specification, installation, and maintenance of AV systems.
- Provide clients with solutions that are efficient, durable, and have a lower environmental impact.
- Leverage technology to enable energy-saving practices and extend system lifespan.
- Contribute to the audiovisual industry's global sustainability commitments while maintaining the technical and commercial viability of each project.

This guide also incorporates recommendations based on International regulations, feedback from industry subject-matter experts, and the evolving expectations of corporate, institutional, and public-sector clients. In doing so, it provides integrators with a realistic, applicable, and adaptable framework for projects of different types and scales.

Introduction:
Empowering Clients Through Informed Choices

Sustainability begins with awareness. Integrators play a fundamental role in helping clients make informed and responsible decisions. These best practices are scalable for integrators of all sizes, from small regional firms to global integrators. Each recommendation can be implemented progressively, depending on available resources, technical capacity, and operational maturity.

These recommendations represent advisable practices, not mandatory requirements. Integrators should adopt them in alignment with contractual scope, client expectations, and regional regulations.

Sustainability is a shared responsibility among manufacturers, clients, IT teams, integrators, and general contractors.

Scope Considerations Across AV Project Types

1. Budget Constraints and Procurement Policies: Some clients, particularly in education or government, operate under tight budgets or rigid procurement rules, which may limit options for sustainable equipment or services, even when beneficial in the long term.

2. Geographic and Supply Chain Limitations: In certain regions, access to certified recyclers, energy-efficient products, or refurbished equipment may be limited, affecting the integrator's ability to apply best practices consistently.

3. Vendor Lock-In or Proprietary Ecosystems: Some AV ecosystems restrict cross-compatibility, limiting reuse, modular upgrades, or circular economy strategies.

4. Client Culture and Change Management: Organizations with low digital literacy or limited interest in sustainability may resist operational changes, such as adopting remote management, power-saving schedules, or proper e-waste handling.

5. Local Regulations and Compliance Variability: Sustainability regulations, especially around e-waste, packaging, and energy efficiency, vary widely between countries or even municipalities, requiring integrators to adjust practices accordingly.

6. Building Infrastructure Limitations: Older buildings may lack modern electrical systems, network infrastructure, or ventilation required to support newer energy-efficient AV technologies.

7. Technology Reliability for Critical Environments: In mission-critical spaces (emergency operations centers, hospitals, control rooms), automated shutdowns or energy-saving modes may not be acceptable due to operational requirements.

8. Availability of Local Skilled Labor: Sustainable installation practices (cable reuse, precision mounting, refurbishment) require trained technicians, which may not be readily available in some markets.

9. Transport Footprint and Logistics Constraints: Large format displays, LEDs, projectors, and racks often require long distance freight or special handling, where integrators may have limited control over transport emissions.

10. Client's Operational Risk Tolerance: Some operators may prefer redundancy and overspecification to reduce downtime risk choices that may increase environmental impact but are business critical.

For these reasons, sustainability expectations should be adapted to the operational realities of each project type.

Chapter I: **Integrator Responsibilities in Sustainable AV**

Integrators are expected to lead operational sustainability efforts and empower clients through informed decision-making. Their responsibilities focus on practices that directly affect system efficiency, lifecycle impact, and environmental performance.

1. Training and Awareness

Integrators should ensure continuous education across internal teams and end users:

Internal Training

- Energy-efficient design and configuration practices
- E-waste handling and compliance
- Low-impact installation methods (e.g., reusable cable ties, optimized cable routing*)

**Design cabling paths to use the least amount of material possible, avoiding unnecessarily long runs, cable duplication, crossings or areas where cables may be damaged, oversized conduits*

**Reduce Waste: Using less cable → fewer leftovers that end up as waste.*

**Facilitate Maintenance: Well organized cabling with optimized routing makes repairs or replacements easier, extending the system's lifespan.*

**Increase Safety and Durability: fewer tension points, reduced risk of electromagnetic interference, improved ventilation for equipment*

End-User Training

- Power-down procedures and use of eco-modes
- Proper equipment care to extend lifespan
- Adoption of digital-first workflows (manuals, documentation, ticketing)

2. Green Service Contracts (SLAs)

Integrators can incorporate sustainability into their service models through:

- Promoting remote support and monitoring to reduce travel-related emissions
- Including energy tracking, system analytics, and performance dashboards
- Prioritizing repair over replacement and ensuring spare part availability
- Providing e-waste collection, reuse, and recycling as part of contract terms

3. Automated Energy-Saving Features

Integrators should leverage the AV and control systems they install to reduce unnecessary energy consumption. Examples include:

- End of day shutdown timers for rooms or entire systems
- Power-off control for high-current equipment (e.g., amplifiers)
- Automatic display shutdown via HDMI sync loss or device inactivity
- Occupancy sensors that turn systems off after inactivity and on when users return
- Smart power strips for installations without control processors

4. Sustainable Operations

Integrators should minimize their own operational footprint by:

- Reducing travel through local technician deployment
- Using electric or hybrid vehicles for logistics where feasible
- Transitioning to paperless workflows and adopting cloud-based document management

5. Circular Economy Implementation

Integrators contribute to circularity by:

- Offering leasing, subscription, and refurbishment models to extend product life
- Specifying modular and upgradeable equipment and adapting internal templates accordingly
- Requiring minimal, recyclable, or reusable packaging from suppliers

6. E-Waste Management and Traceability

Integrators should ensure responsible end of life practices:

- Partner with certified recyclers (e.g. e-Stewards)
- Provide clients with proper disposal certificates
- Track and report volumes of waste diverted vs. disposed

7. Metrics and Reporting

Integrators enhance transparency and client value by tracking:

- Measurable energy savings enabled by the AV system
- Reuse of components, refurbished equipment, and extended product lifecycles
- Carbon footprint, combined energy use of a solution based on a set number of hours per day, the quantity of recycled/recyclable materials, etc.
- And by providing clients with:
  - » Optional integration of KPIs with client ESG reporting frameworks
  - » Product Carbon Footprint (PCF) data for carbon accounting as available by manufacturers

Chapter 2: **Integrator Sustainability Checklist: Is the Proposed AV Solution Sustainable?**

Internal Pre-Proposal / Pre-Installation Verification Tool

This checklist helps integrators confirm that the AV solution being proposed meets sustainability best practices, aligns with client expectations, and complies with emerging Internacional requirements (e.g., WEEE ((Waste Electrical and Electronic Equipment) labeling, right-to-repair, etc. Integrators should formalize the checklist as part of their deliverable package and consider publishing it as a standard.

Integrator Sustainability Checklist

INTERNAL VERIFICATION FOR COMPLIANCE

1. **Does the proposed equipment comply with WEEE (Waste Electrical and Electronic Equipment) labeling, batteries recycling and end-of-life treatment requirements (take-back, recycling routes, or EPR (Extended Producer Responsibility))? ***
   ☐ Yes ☐ Partially ☐ No
2. **Have we planned certified WEEE (Waste Electrical and Electronic Equipment) disposal for installation waste or equipment replacement?**
   ☐ Yes ☐ Partially ☐ No
3. **Does the equipment has an energy label or energy efficiency certification? (e.g., standby power limits, efficiency thresholds)?**
   ☐ Yes ☐ Partially ☐ No
4. **Does the design include energy-saving automation (timers, occupancy sensors, power-down logic)?**
   ☐ Yes ☐ Partially ☐ No
5. **Is the product designed according to durability, reparability, and upgradeability guidelines promoted by Ecodesign rules?**
   ☐ Yes ☐ Partially ☐ No
6. **If applicable (e.g., displays, projectors): Does the product carry an Energy Label and provide transparent energy consumption data?**
   ☐ Yes ☐ Partially ☐ No
7. **Have we selected the highest viable energy efficiency for the project's budget and performance requirements?**
   ☐ Yes ☐ Partially ☐ No

8. **Does the manufacturer provide a Digital Product Passport containing: lifecycle environmental impact information, repair and spare parts availability, compliance documentation, materials and chemical composition (when required). ¿Does the manufacturer provide: Product Carbon Footprint (PCF) and Life Cycle Assessment (LCA)?**
   ☐ Yes ☐ Partially ☐ No

9. **Does the product include QR-based or digital documentation enabling future compliance tracking?**
   ☐ Yes ☐ Partially ☐ No

10. **Is packaging compliant with international recyclability and reduction standards (lightweighting, absence of unnecessary plastics)? Is packaging reusable, compostable, or part of a take-back scheme?**
    ☐ Yes ☐ Partially ☐ No

11. **Does the equipment offer: standardized screws and access for repair availability of spare parts for 7–10 years, repair documentation, modular components?**
    ☐ Yes ☐ Partially ☐ No

12. **Can the integrator or customer perform basic repairs without voiding warranty?**
    ☐ Yes ☐ Partially ☐ No

13. **Have we selected installation methods that minimize materials and waste?**
    ☐ Yes ☐ Partially ☐ No

    Examples include:

    - Optimized cabling routes (minimum material use)
    - Reusable cable ties
    - Avoiding oversized conduits
    - Reuse of existing infrastructure

14. **Does the proposal include training on: energy-efficient operation, correct power-down practices, maximizing equipment lifespan?**
    ☐ Yes ☐ Partially ☐ No

15. **Does the solution minimize components and material use while meeting customer requirements?**
    ☐ Yes ☐ Partially ☐ No

Suggested interpretation:

8–10 "Yes" responses → Compliant and highly sustainable solution

5–7 "Yes" responses → Acceptable but improvements recommended

Fewer than 5 "Yes" → Sustainability gaps; reconsider design or supplier

Question	Explanation	How Integrators Can Support
1. Does the product have environmental certifications (e.g., EPEAT)?	These certifications indicate lower energy use and compliance with environmental standards. This aligns with Ecodesign and Energy Labelling regulations.	Integrators should prioritize certified products in proposals and educate clients on their benefits.
2. Does the provider disclose carbon footprint or life cycle data for equipment?	Life cycle carbon data helps clients understand the environmental impact of a product. Manufacturers are primarily responsible for this under EU Product Environmental Footprint guidelines.	Encourage suppliers to provide certified PCF (Product Carbon Footprint) documentation; request it when quoting and share this with clients.
3. Can the equipment be repaired or upgraded rather than replaced?	Modularity extends product life and reduces waste. EU legislation prioritizes repairability and upgradability to extend product life.	Prioritize and promote modular systems and ensure spare parts are available in SLAs (Service level agreements).
4. Does the solution offer remote management to reduce technical travel?	Remote systems reduce emissions from site visits and improve energy efficiency.	Include remote monitoring and diagnostics in the service offering.
5. Is the packaging recyclable, reusable or compostable?	Sustainable packaging reduces waste and improves recyclability. Manufacturers must comply with the EU Packaging and Packaging Waste Directive. Integrators can reinforce this by preferring compliant vendors	Communicate preferences to vendors; reject or flag excessive packaging.
6. Is there a take-back or recycling program for end-of-life equipment?	Proper e-waste disposal prevents environmental contamination. Integrators must implement or participate in certified WEEE (Waste Electrical and Electronic Equipment) recycling schemes, as per EU directives.	Offer or partner with certified WEEE (Waste Electrical and Electronic Equipment) collection programs/recyclers.
7. Is documentation provided digitally instead of printed?	Reduces paper use and improves access. Integrators should adopt paperless processes in alignment with digital transition goals.	Provide all technical documents, invoices and user guides digitally.
8. Is user training on sustainable AV use included?	Helps the client operate systems responsibly (power off, efficient use).	Include green usage training in handover procedures.
9. Are modular or upgradeable systems used?	Reduce full replacements and support reuse.	Propose systems designed for component replacement and upgrades.
10. Is circular economy promoted (e.g., renting, refurbished)?	Leasing and refurbishment reduce resource consumption.	Offer Device-as-a-Service (DaaS) models and promote reconditioned options.

Expanded Checklist Elements:

- Does the product include clear instructions for final disposal, return, or recycling?
- Is a certificate of e-waste collection/disposal provided for old equipment?
- Does the packaging indicate recyclability using accepted symbols (per EU Packaging Regulation - Digital Product Passport (DPP))?
- Is there information about modularity and potential for upgrade or refurbishment?
- Is there a QR code or link to the supplier's sustainability resources or return process?

Integrators should formalize the checklist as part of their deliverable package and consider publishing it as a standard. Manufacturers must ensure their product labels and documentation comply with EU eco-labeling and Extended Producer Responsibility requirements.

As part of the documents for the customer at the end of the project an AV Green Guide can be included as part of the user training on sustainable AxaV use.

AV Green Guide for End Users (example)

Practical Guide for Sustainable Use of Audiovisual Systems

AV Sustainability Best Practices from AV Integrators to End Users

As part of the documents for the customer at the end of the project an AV Green Guide can be included as part of the user training on sustainable AV use:

This guide accompanies the installation of your new audiovisual system. It provides practical recommendations for responsible and efficient operation, helping extend equipment lifespan, reduce environmental impact, and align your organization with global sustainability frameworks.

1. ENERGY EFFICIENCY AND SMART OPERATION

Use Energy Wisely

- Turn off AV equipment (displays, projectors, amplifiers, processors) when not in use.
- Enable sleep, standby, or eco modes whenever possible.
- Disconnect chargers, adapters, and portable devices when they are fully charged.

Automated Energy Saving

Ask your AV integrator to configure:

- End-of-day shutdown timers
- Occupancy-based automation (system off when the room is vacant)
- Automatic screen/projector shutdown when no signal is detected

Optimize System Use

- Dim displays or projectors in low-light environments to reduce power consumption.
- Prefer PoE devices when available, as they reduce the number of power supplies and energy overhead.

2. MAINTENANCE AND LONGEVITY

Proper maintenance significantly extends the life of AV systems.

Preventive Care

- Clean filters, fans, and ventilation areas regularly to prevent overheating.
- Ensure adequate airflow around equipment racks and media cabinets.
- Follow manufacturer-recommended maintenance intervals.

Proper Handling

- Avoid exposing equipment to heat sources, moisture, or dust.
- Use surge protection and conditioning to prevent electrical damage.

Firmware and Software Updates

- Keep devices updated to ensure optimal performance and energy efficiency.
- Consult your integrator before updating control systems or mission-critical equipment.

3. REDUCTION OF PAPER AND MATERIALS

Choose Digital First

- Prefer digital signage over printed posters or announcements.
- Request digital versions of manuals, guides, and technical sheets.
- Store invoices, warranties, and system documentation electronically.

Avoid Unnecessary Consumables

- Use rechargeable batteries in microphones, remotes, and portable devices.
- Consolidate devices where possible (e.g., all-in-one platforms instead of multiple single-purpose units).

4. RESPONSIBLE END-OF-LIFE MANAGEMENT

Electronic devices must be managed responsibly at the end of their lifecycle.

Do Not Dispose of Electronic Devices in Regular Waste

- Electronic waste contains materials that must be processed safely.

Options for Responsible Disposal

- Ask your integrator or provider about WEEE-compliant collection services.
- Request disposal or recycling certificates for traceability.
- Use manufacturer or integrator take-back programs and buy-back incentives.

Extend the Useful Life Before Disposal Consider:

- Donation to educational or community organizations
- Upgrades or refurbishment
- Repurposing for secondary use (e.g., small meeting rooms)

5. SMART AND RESPONSIBLE USE BY YOUR TEAM

Sustainability is most effective when all users adopt the same practices.

Raise Awareness

- Share this guide with your teams.
- Include sustainable AV use instructions in onboarding processes.
- Encourage power-down discipline and proper device handling.

Integrate Sustainability into Policies

- Add AV sustainability guidelines into your environmental or institutional policies.
- Incorporate energy-saving practices into daily room usage routines.

6. OPTIONAL: ADVANCED PRACTICES FOR SUSTAINABLE ORGANIZATIONS

Monitor Energy Consumption

If your infrastructure supports it:

- Track consumption via dashboards or analytics.
- Compare room or system efficiency over time.

Optimize Your AV

- Decommission legacy technology responsibly.
- Adopt modular systems to reduce future e-waste.
- Prefer equipment with longer lifespans and repairability features.
- Choose Low-Impact Environments
- Use natural lighting when possible.
- Manage HVAC settings in AV rooms to avoid over-cooling.

Integrators as Sustainability Partners

By formalizing this guide as part of the deliverable package, integrators help customers adopt responsible practices and extend system life, while contributing to circular economy principles and sustainability goals.

Manufacturers must ensure their product labels and documentation comply with local eco-labeling and Extended Producer Responsibility (EPR) requirements.

Together, customers, integrators, and manufacturers create a measurable, positive impact. By aligning their operations and services with these practices, AV integrators can become trusted sustainability partners, reduce their footprint, and deliver additional value to clients and communities.

Chapter 3:
Standardized Sustainability KPIs for the AV Integrators

The AV industry cannot meaningfully improve sustainability performance without standardized, comparable, and auditable indicators. Establishing a shared KPI framework allows integrators, manufacturers, consultants, and clients to communicate clearly about environmental impacts, track progress, and align with international sustainability reporting requirements.

This chapter provides integrator-focused KPIs, identifies the data manufacturers must supply, and suggests how organizations can align them with GRI (Global Reporting Initiative) and IFRS S2 (Sustainability Disclosures).

1. PURPOSE OF STANDARDIZED KPIS IN THE AV SECTOR

Standardized sustainability KPIs enable:

- Transparency: Customers can understand the environmental impact of a proposed solution.
- Accountability: Integrators commit to measurable, long-term improvements.
- Benchmarking: Public-sector and enterprise buyers often require comparisons between vendors.
- ESG Reporting: Many organizations must meet CSRD/GRI/IFRS S2 reporting requirements. AV integrators that provide consistent metrics add value to corporate sustainability teams.
- Circular Economy Enablement: Tracking reuse, refurbishment, and material recovery supports EU circularity targets for 2030.

2. KPI GOVERNANCE AND ALIGNMENT FRAMEWORK

Integrators should maintain a simple internal process:

2.1. Assign Ownership

- A Sustainability Lead or Operations Manager should own KPI collection, reporting, and quality.

2.2. Data Sources

KPI inputs typically come from:

- Manufacturers (LCA, packaging specs, energy use)
- Remote monitoring tools
- Logistics partners (where applicable)
- Certified e-waste recyclers

2.3. Reporting Cycles

Recommended:

- Quarterly internal review
- Annual client-facing sustainability summary for each system
- Annual ESG contribution summary for corporate reporting

2.4. Verification

Larger integrators may pursue:

- ISO 14001 (Environmental Management Systems)
- Third-party audits
- Supplier declarations (EPR (Extended Producer Responsibility) membership, WEEE (Waste Electrical and Electronic Equipment) compliance)

3. EXPANDED STANDARD KPIS FOR INTEGRATORS

Below are enriched definitions and measurement notes for each KPI.

1. % of Refurbished Products Installed

Definition: Percentage of total installed devices that are refurbished, factory-certified used, or upgraded rather than new.

Why it matters: Supports circular economy, reduces embodied carbon, extends equipment life.

Measurement Notes:

- Count individual components, not system bundles.

2. Annual Energy Consumption of AV Systems (kWh/year)

Definition: Modeled or measured energy use of the installed AV solution.

Why it matters: Enables clients to understand operational carbon footprint and compare system efficiency.

Measurement Notes:

- Use manufacturer-provided consumption data when possible.
- Integrators may estimate based on:
  - hours of operation
  - standby vs active consumption
  - automation features (timers, sensors)

3. Kilograms of WEEE Collected and Responsibly Managed (kg/year)

Definition: Total weight of electronic waste collected, recycled, or reused under WEEE-compliant programs.

Why it matters: Demonstrates compliance with EU law and responsible end-of-life management.

Measurement Notes:

- Must be traceable through certificates from recyclers.
- Should distinguish between:
  - reused equipment
  - recycled materials
  - total disposal

4. % of Recyclable or Compostable Packaging

Definition: Percentage of packaging (by weight or volume) that is recyclable, reusable, or compostable.

Why it matters: Packaging is a major source of waste in AV integration.

Measurement Notes:

- Manufacturers must supply recyclability info.
- Integrators should record material breakdown (cardboard, foam, plastic films).

5. % of Projects with Remote Management Capabilities

Definition: Percentage of installed systems equipped for remote updates, diagnostics, and monitoring.

Why it matters: Significantly reduces travel emissions and maintenance costs.

Measurement Notes:

- Count projects where >80% of system devices are remotely manageable.
- Some environments (air-gapped spaces) may limit this KPI.

6. Operational Carbon Footprint (kg CO_2 e/ month or per site)

Definition: Estimated monthly carbon emissions from the system during operation.

Why it matters: Allows clients to incorporate AV into building-wide carbon inventories.

Measurement Notes:

- Multiply annual kWh by local emissions factors (kg CO_2 e/kWh).
- Integrators should use established tools (GHG Protocol, Carbon Trust).

7. % of Documentation Delivered Digitally

Definition: Share of manuals, drawings, warranties, and training materials delivered electronically.

Why it matters: Supports digital transformation and waste reduction.

Measurement Notes:

- Target: ≥ 90% digital documentation
- Exceptions allowed for accessibility or regulatory requirements.

8. Estimated Annual Energy Savings from Automation (kWh/year)

Definition: Energy avoided through:

- Timers
- Occupancy sensors
- Signal-based shutdown
- Remote power-off controls

Why it matters: These savings demonstrate the integrator's value beyond hardware.

Measurement Notes:

- Estimate using baseline vs optimized operation.
- Can be included in the annual client sustainability report.

4. MANUFACTURER CONTRIBUTIONS TO KPI ACCURACY

Manufacturers must provide integrators with verifiable data, including:

- LCA (Life Cycle Assessment): Carbon footprint per lifecycle stage: raw materials, manufacturing, distribution, use, end-of-life.
- Product Carbon Footprint (PCF): Increasingly required under EU Product Passport rules.
- Energy Consumption Data: Active, idle, and standby modes, aligned with ErP (Energy-related Products) standards.
- Packaging Specifications: Material breakdown and recyclability labels
- Spare Parts Availability: Required under the EU Right-to-Repair regulations.

5. WHY THESE KPIS MATTER FOR PROCUREMENT PROFESSIONALS

Buyers, especially public sector, universities, and large enterprises, prefer integrators who provide:

- Measurable environmental benefits
- Comparable system performance metrics
- Compliance with local sustainability legislation
- Data suitable for corporate ESG disclosures

Standard KPIs help integrators become preferred vendors, enhancing competitiveness.

6. PROPOSED ADOPTION ROADMAP FOR INTEGRATORS

Phase 1 (0–12 months): Build the foundation

- Start tracking three KPIs (Energy, WEEE (Waste Electrical and Electronic Equipment), digital documentation.
- Collect manufacturer product data systematically
- Train staff to capture field data

Phase 2 (12–24 months): Expand KPI coverage

- Add circularity metrics (refurbished products)
- Implement remote management tracking
- Publish annual sustainability summaries for clients

Phase 3 (24–36 months): Full maturity

- Align KPI reporting with GRI (Global Reporting Initiative)/IFRS S2 (International Financial Reporting Standard for climate-related disclosures)
- Use carbon accounting tools (e.g., SimaPro, Carbon Trust, GHG Protocol)
- Integrate KPIs into RFP (Request of proposal) responses and marketing materials

**Manufacturers are expected to contribute data required for several of these KPIs, particularly product energy use, carbon footprint (LCA - Life Cycle Assessment), and packaging recyclability.*

Chapter 4:
SDG Matrix and ESG Materiality Guide for AV Integrators

This section expands the SDG–AV action matrix with specific UN targets, relevant KPIs, and guidance for small AV businesses to conduct basic ESG assessments. It aims to help integrators align operations with sustainable development and prepare for ESG reporting.

Integrators can leverage the AV–SDG (Sustainable Development Goals) matrix not only to guide project decisions, but to identify which sustainability goals are most material to their operations and stakeholders.

AV Sustainable Action	SDG Target	Example KPI
Design modular, upgradeable AV equipment	SDG 12.5 – Reduce waste generation	% of modular or upgradeable products installed
Use energy-efficient AV products	SDG 7.3 – Double the global rate of energy efficiency improvement	kWh/year saved per installation
Minimize and recycle packaging	SDG 12.4 – Sound management of chemicals and waste	% of recyclable packaging used
Remote system monitoring	SDG 13.2 – Integrate climate measures into operations	% of projects with active remote monitoring
E-waste collection and take-back programs	SDG 12.5 / SDG 3.9 – Reduce hazardous waste impact	kg of WEEE collected and documented
Digital documentation and processes	SDG 12.2 – Efficient use of resources	% of documentation provided digitally
Local supply chains and workforce	SDG 8.3 – Promote decent job creation and entrepreneurship	% of suppliers within 100km radius
Training users on sustainable AV use	SDG 4.7 – Ensure education for sustainable development	# of users trained per installation
Offer DAAS/Leasing/Refurb models	SDG 9.4 – Upgrade infrastructure with clean technologies	% of systems delivered under circular models
Labeling and disposal instructions	SDG 12.8 – Ensure information for sustainable lifestyles	% of equipment labeled with end-of-life instructions
Training/Awareness: Maintain awareness of sustainability-focused products from manufacturers.	SDG 17.16 – Enhance partnerships for sustainable development	# of sustainable products evaluated or adopted per year
Sustainable Operations: Pre-built or pre-wired racks reduce job-site waste and installation complexity	SDG 12.2 – Efficient use of resources through optimized processes	Reduction in installation waste (kg/project)

This matrix shows the relationship between sustainable actions implemented in audiovisual technology projects and the Sustainable Development Goals (SDGs) established by the UN.

Each integrator must determine which SDGs are most aligned with their customers and business model.

Chapter 5: **Integrator Scope vs. Manufacturer Scope**

Area	Integrator Responsibility	Manufacturer Responsibility
Product Certifications	Specify and prioritize certified equipment	Certify and label equipment appropriately
Carbon Footprint Data	Request and use PCF (Product Carbon Footprint) data for proposals or projects	Generate and publish PCF (Product Carbon Footprint) / LCA (Life Cycle Analysis) data per product
Packaging	Communicate preferences; audit excessive packaging	Design minimal, recyclable, labeled packaging
E-Waste (WEEE)	Collect, manage, and trace disposal	Offer take-back programs or support channels
Lifecycle Durability	Propose modular systems and offer SLAs (Service level agreements) for maintenance	Design upgradeable products, ensure part availability

Manufacturer Responsibilities (Based in the EU Norms)

- Product Carbon Footprint documentation
- Sustainable packaging – must comply with the Packaging and Packaging Waste Directive, including recyclability and material reporting.
- Eco-design – modular design, energy efficiency, durability in compliance with the EU Ecodesign Directive.
- Use of hazardous substances – must meet RoHS (Restriction of Hazardous Substances) and REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations.
- Support for repair and reuse – supply of spare parts and repair manuals as per the Ecodesign directive.
- Take-back and recycling responsibility – Extended Producer Responsibility for collection and treatment of electronic waste (WEEE Directive).

BONUS: Your goal isn't to "be green," it's to "be consistent." Every cable, console, speaker, microphone, or display you install can be more responsible if you make better choices.

Chapter 6: ESG (Environmental, Social, and Governance) Assessment Guide The RoadMap

This guide helps AV Integrators identify their most important Environmental, Social, and Governance (ESG) priorities and build a simple, actionable sustainability strategy.

It is designed to be practical, scalable, and aligned with global best practices while avoiding unnecessary complexity.

WHY THIS MATTERS FOR AV INTEGRATORS:

A clear ESG materiality approach enables companies in the AV Industry to:

- Win more RFPs
- Align with public-sector sustainability requirements
- Improve margins through efficiency
- Demonstrate leadership
- Reduce operational risk

1. **Identify Key Stakeholders: Stakeholders are the groups affected by your company's activities or whose expectations influence your operations.**

Typical stakeholders in an AV business include:

Internal

- Employees and technicians
- Management and owners
- Sales and project teams

External

- Clients (corporate, education, government, entertainment)
- Suppliers and manufacturers
- Logistics partners
- Community and local organizations
- Regulators (especially regarding WEEE (Waste Electrical and Electronic Equipment), safety, labor, and environmental rules)

Why this matters:

Understanding stakeholder expectations ensures your ESG strategy is relevant and meaningful.

2. **Define the ESG Topics Relevant to Your AV Business: Prepare a list of sustainability issues that may apply to your operations.**

Examples for the AV sector:

Environmental

- Energy consumption (offices, fleets, installed systems)
- E-waste and end-of-life management
- Packaging waste
- Carbon footprint from travel
- Use of refurbished or modular equipment
- Supplier environmental performance

Social

- Technician safety and jobsite conditions
- Training and professional development
- Diversity, inclusion, and equal opportunity
- Client education on sustainable AV use
- Community engagement

Governance

- Business ethics and anti-corruption
- Data privacy and cybersecurity (critical in AV installations)
- Supply chain transparency
- Compliance with WEEE, EPR, Ecodesign and Right-to-Repair rules

**Tip: Start broad. You will prioritize later.*

3. **Assess Each Topic's Importance (Materiality Assessment)**

For each topic, evaluate:

A. Importance to the Business: Does this issue affect costs, risks, compliance, reputation, or operations?

B. Importance to Stakeholders: Do clients, regulators, employees or suppliers expect action on this issue?

Use a scale such as:

- High
- Medium
- Low

This produces a clear, visual map of what matters most.

3. **Prioritize the Top 5–7 Material Topics: Small and medium businesses should focus on fewer, high-impact issues instead of trying to address everything.**

Typical priority topics for AV integrators include:

- E-waste management (WEEE Waste Electrical and Electronic Equipmentcompliance)
- Energy efficiency of installed systems
- Technician safety and training
- Supplier environmental performance
- Product lifecycle and modularity
- Travel-related emissions
- Data privacy in AV systems

These become your ESG pillars.

4. Align Material Topics with SDGs + Create KPIs

For each material issue:

- Identify the related UN SDG target (not only the SDG number).
- Select 1–2 KPIs to track progress.

Set simple, realistic goals.

Example:

Material Issue	SDG Target	KPI	Goal
WEEE compliance	SDG 12.5	kg of e-waste collected per year	+20% increase in certified recovery
Energy efficiency	SDG 7.3	Energy savings (kWh/ year)	Save 15% per installation
Employee training	SDG 4.7	Hours of training per technician	10 hrs/year in sustainability

5. Communicate and Report Your ESG Progress: ESG reporting doesn't have to be complex. Start with:

Internal Reports

- Annual KPI summary
- Success stories (reduced waste, energy savings, fewer site visits due to remote management)

External Reports

- Add a Sustainability section on your website
- Include KPIs in RFP responses
- Insert an ESG summary in project handover packages
- Publish a brief annual sustainability snapshot (1–2 pages)

6. Use a Visual Materiality Matrix

Create a simple grid:

X-axis: Importance to business

Y-axis: Importance to stakeholders

Plot your topics:

- Upper right corner: Top priorities (focus areas)
- Middle zones: Medium priorities (monitor but don't invest heavily yet)
- Lower left: Low priorities (minimal effort required)

This visualization is extremely useful for:

- Communicating with clients
- Aligning internal teams
- Preparing for ESG audits

7. Implementation Roadmap (Optional)

Phase 1 (0–3months)

- Identify stakeholders
- Conduct materiality assessment
- Select top ESG topics
- Assign roles

Phase 2 (3–6 months)

- Define KPIs
- Begin tracking and creating baselines
- Train staff

Phase 3 (6–12 months)

- Report KPIs to clients
- Integrate ESG into operations and RFP (Request for Proposal) responses
- Publish ESG summary

Glossary

AV (Audiovisual): Technology that combines sound and visual components, such as projectors, displays, speakers, microphones, and control systems, for communication, presentation, or entertainment purposes.

Circular Economy: An economic model aimed at eliminating waste and keeping products, components, and materials in use for as long as possible through reuse, repair, refurbishment, and recycling.

DaaS (Device as a Service): A service model in which hardware, software, and support are provided to clients on a subscription basis, enabling upgrades and reducing waste through refurbishment and reuse.

Ecodesign: A design approach that considers environmental impacts throughout a product's life cycle, aiming for energy efficiency, modularity, durability, and minimal use of hazardous materials.

EPEAT (Electronic Product Environmental Assessment Tool): A global rating system for greener electronics, evaluating products based on environmental criteria such as energy use, recyclability, and chemical content.

ESG (Environmental, Social, and Governance): A set of criteria used to evaluate a company's environmental responsibility, social impact, and governance practices.

GRI (Global Reporting Initiative): An international standard for sustainability reporting, providing frameworks and metrics for organizations to disclose their environmental, social, and governance performance.

IFRS S2: A sustainability disclosure standard issued by the International Financial Reporting Standards Foundation, focusing on climate-related risks and opportunities.

KPI (Key Performance Indicator): A measurable value that indicates progress toward specific objectives, such as energy savings, waste reduction, or increased use of refurbished equipment.

LCA (Life Cycle Assessment): A systematic method for evaluating the environmental impact of a product across all stages of its life, from raw material extraction to disposal.

Modular Design: A product design approach that uses interchangeable and upgradeable components, allowing for easier repairs, upgrades, and waste reduction.

PCF (Product Carbon Footprint): The total greenhouse gas emissions associated with a product's life cycle, measured in carbon dioxide equivalent (CO_2e).

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): An EU regulation aimed at protecting human health and the environment from risks posed by chemicals.

Remote Management: The ability to monitor, configure, and troubleshoot systems without traveling to the site, reducing emissions and improving efficiency.

RoHS (Restriction of Hazardous Substances): An EU directive that limits the use of specific hazardous materials in electrical and electronic equipment.

R2v3: The latest version of the Responsible Recycling standard for electronics recyclers, ensuring environmentally sound and safe management of electronic waste.

SLA (Service Level Agreement): A contractual commitment between a service provider and a client defining the quality, availability, and responsibilities for provided services.

Sustainable Packaging: Packaging designed to minimize environmental impact, typically recyclable, compostable, reusable, and compliant with regulations such as the EU Packaging and Packaging Waste Directive.

SDGs (Sustainable Development Goals): A set of 17 global goals established by the United Nations to address issues such as poverty, inequality, climate change, and environmental degradation by 2030.

WEEE (Waste Electrical and Electronic Equipment): An EU directive that sets requirements for the collection, recycling, and recovery of electronic waste to reduce environmental impact.

Sustainability Advisory Group