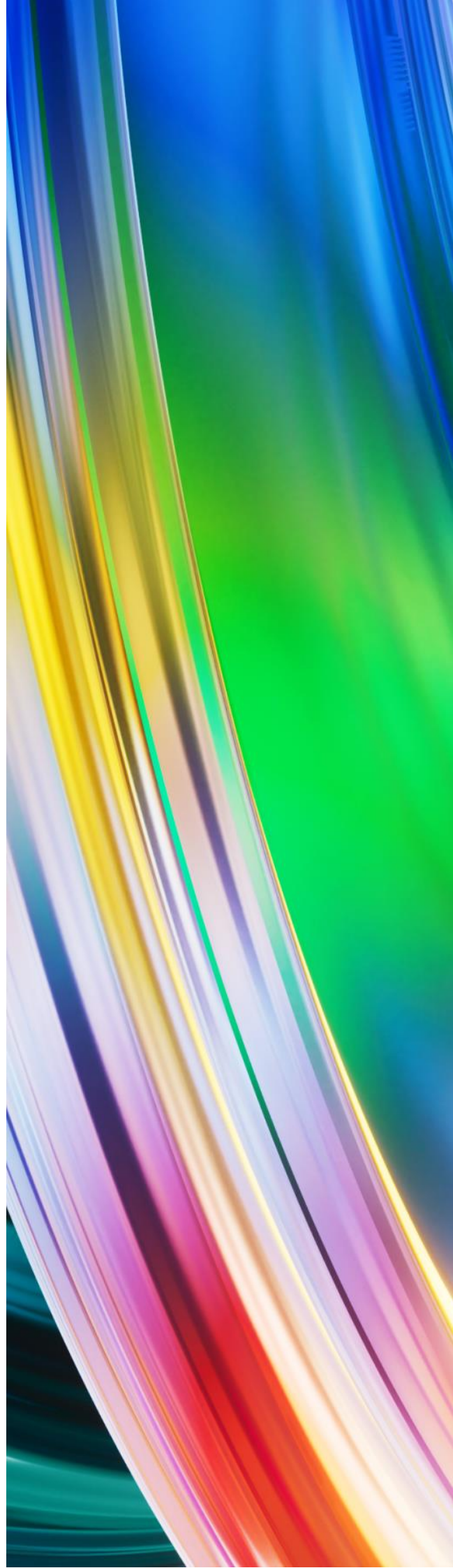


# Go **green** on the big screen

Our commitment to advance the adoption of sustainable practices within cinema exhibition and contribute to a more environmentally responsible future.

2023 edition



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# 1. Executive summary

**The importance of sustainability for cinema exhibitors lies in its ability to reduce environmental impact, generate cost savings, enhance reputation, and drive innovation.** By implementing energy-efficient technologies and effective waste management practices, exhibitors can reduce carbon emissions and appeal to an eco-conscious audience. Moreover, sustainability initiatives can lead to significant cost savings, foster customer loyalty, and attract partnerships with like-minded organizations. Embracing sustainability allows exhibitors to position themselves as leaders in the industry and safeguard their long-term success in a changing world.

**Cinionic, as a core technology companion to the cinema exhibition industry, plays a vital role in supporting cinema exhibitors' sustainability efforts.** We provide sustainable product offerings, invest in research and development for eco-friendly solutions, and offer energy-efficient technological equipment like laser projectors. Additionally, Cinionic promotes supply chain transparency, collaborates on waste management, provides training, and facilitates sustainability reporting. By partnering with Cinionic, cinema exhibitors can make responsible choices, reduce their environmental impact, and contribute to a more sustainable cinema industry.

**Cinionic – and Barco - are committed to sustainability and have ongoing initiatives to support the realization of global sustainability goals in the cinema industry.** We aim to lower our environmental footprint for our customers and help them reduce their footprint through clear goals and targets. Cinionic has made significant progress in energy consumption and greenhouse gas emissions. By delivering more products with ecoScoring labels and laser technology, substantial energy savings can be achieved when compared to previous years and past generations of cinema products & hardware.

**Cinionic aims to lower the environmental footprint of its customers by focusing on four key areas:**

Laser Technology	Eco-design & production	Lifetime extension & lifecycle management	Circular economy & CaaS
Laser projectors offer energy efficiency, longer lifespan, reduced waste generation, improved image quality, and lower maintenance requirements, making them a sustainable choice for cinema exhibitors.	Cinionic follows Barco's ecoDesign principles, prioritizes sustainable materials and packaging, and promotes transparency and collaboration to drive sustainability in the industry.	Cinionic employs Enhanced service and support; Fleet management strategies; and Laser Light Upgrade kits (for Series 2 projectors) to enable extended product lifetimes and managed lifecycles to maximize usefulness.	Cinionic engages in Circular Economy programs harnessing technological and business model innovation. Today, Cinionic uses multiple approaches to further the ability to realize a cinema industry driven by a circular economy.

Combining these with our comprehensive Environmental Sustainability Goals (ESG) at a corporate level, ensuring our own operations also contribute to improved eco-performance for the entire industry. Sustainable impact is an integral part of our corporate strategy encompassing people, the

planet, and our communities – all underpinned by ambitious targets that we are working to realize today (vs. our performance in 2015).

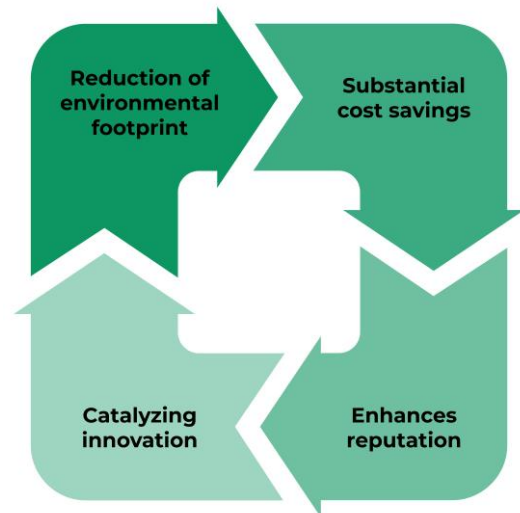
**Cinionic is the prime companion for advancing sustainability in cinema exhibition** helping exhibitors reduce their environmental impact and contribute to a more sustainable industry. With a focus on laser technology, eco-driven design, lifecycle management, and a commitment to lowering the environmental footprint, Cinionic enables cinema exhibitors to make responsible choices, reduce energy consumption, and position themselves as leaders in sustainability.

## 2. The importance of sustainability

### For cinema exhibitors

Sustainability has emerged as a critical concern across various industries in today's rapidly evolving world. While it has traditionally been associated with sectors like energy and manufacturing, the concept of sustainability is now making its way into the realm of cinema exhibition. Cinema exhibitors, who play a pivotal role in the entertainment landscape, are recognizing the significance of adopting sustainable practices in their operations. This shift towards sustainability is driven by a growing awareness of environmental and social issues, as well as the evolving expectations of audiences and stakeholders.

Sustainability matters for cinema exhibitors because it encompasses a broad range of considerations that extend beyond environmental impact alone. It involves embracing practices that promote long-term viability, minimize waste, and enhance social responsibility. By integrating sustainable principles into their operations, cinema exhibitors can achieve several key benefits that contribute to their overall success and reputation.



1. **Focus on sustainability reduces the environmental footprint of cinema operations.** By implementing energy-efficient technologies, adopting renewable energy sources, and managing waste effectively, exhibitors can significantly reduce their carbon emissions and contribute to mitigating climate change. These efforts not only help protect the environment but also position cinema exhibitors as responsible corporate citizens, appealing to an increasingly eco-conscious audience.
2. **Sustainability initiatives can generate substantial cost savings** for cinema exhibitors. Energy-efficient lighting, heating, and cooling systems, coupled with effective waste management practices, can significantly reduce operational expenses. These financial benefits enable exhibitors to allocate resources towards other business areas, such as improving the cinema experience or investing in new technologies.

3. **Embracing sustainability enhances reputation** in addition to environmental and financial advantages. In an era where social consciousness is paramount, consumers are increasingly drawn to businesses that prioritize sustainability and corporate social responsibility. For example, Gen Z is anticipated to represent 27% of the world's economy by 2030<sup>1</sup>, and sustainability is a core driver in decision-making for this demographic. By aligning cinema values with those of their audience, exhibitors can build strong connections and foster customer loyalty today and in the future. Promoting sustainable practices can also attract partnerships with like-minded organizations, leading to collaborations that expand reach, influence, and impact within the industry.
4. **Sustainability programs can catalyze innovation.** By challenging traditional practices and seeking alternative solutions, exhibitors can drive positive change in the industry. This can include embracing digital technologies, exploring new distribution models, and offering diverse programming that reflects social and cultural values. By being at the forefront of sustainability, cinema exhibitors can distinguish themselves as forward-thinking pioneers, attracting audiences seeking meaningful experiences and unique offerings.

Sustainability matters for cinema exhibitors due to its far-reaching benefits. By adopting sustainable practices, cinema exhibitors can reduce their environmental impact, lower costs, enhance their reputation, and drive innovation. Embracing sustainability not only aligns exhibitors with the expectations of their audience but also positions them as leaders in an industry that is adapting to the challenges and opportunities of a changing world. As cinema exhibition evolves, sustainability will continue to be a vital consideration that shapes the industry's future and ensures its long-term success.

## The role of Cinionic

### Making cinema more sustainable

At Cinionic, we see a crucial role in supporting cinema exhibitors on their journey toward becoming more sustainable. By actively engaging 1-on-1 with our customers to identify opportunities unique to their commercial setup and operational practices, cinema exhibitors can access a wider range of sustainable products, services, and expertise.

When it comes to technology, we prioritize sustainability, communicate our sustainability commitments and expectations, and collaborate to achieve shared sustainability goals.

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<sup>1</sup> Source: The Business Insider - Gen Z is taken over the economy in a decade, Nov 16<sup>th</sup> 2020

Cinionic contributes to the sustainability efforts of cinema exhibitors in several ways:

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**1 Sustainable product offerings**

Cinionic provides a wide range of sustainable product, solution, and service options to cinema exhibitors, such as energy-efficient laser projection, media servers, managed services, monitoring, as well as circular economy concepts like lifetime extension options, remanufacturing and as-a-Service business models that eliminate ownership. By offering sustainable alternatives, we enable cinema exhibitors to make responsible choices and reduce their environmental impact.

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**2 Research and development**

Cinionic continually invests in research and development efforts to improve energy efficiency, lifespan, and overall sustainability of their solutions & services. Through a culture of innovation and by introducing eco-friendly solutions, we provide cinema exhibitors with access to cutting-edge solutions that align with their sustainability objectives.

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**3 Energy-efficient technological equipment**

Cinionic offers energy-efficient solutions, such as laser projectors with low power consumption and efficient cooling systems, and smart monitoring systems. Replacing or upgrading to energy-efficient technology significantly reduces electricity usage and contributes to overall energy savings and Greenhouse Gas (GHG) emissions for cinema exhibitors.

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**4 Remote monitoring and maintenance**

By remotely monitoring performances and addressing maintenance issues proactively and predictively, Cinionic can optimize equipment efficiency, extend the product lifecycle, reduce the need for on-site technician visits, and minimize travel-related emissions.

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**5 Supply chain transparency**

We provide information about the origins of our products, including the sourcing of raw materials, manufacturing processes, and transportation methods. This transparency helps cinema exhibitors assess the environmental and social impacts associated with the products & services they purchase and make informed decisions based on sustainable criteria.

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**6 Promoting Sustainable Production Practices**

We employ sustainable production practices prioritizing energy efficiency, waste reduction, and responsible sourcing. By optimizing manufacturing processes and implementing green technologies, Cinionic strives to minimize greenhouse gas emissions, water usage, and waste generation during production.

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**7 Collaboration on waste management**

Cinionic provides sustainable packaging using recyclable materials. We also collaborate with cinema exhibitors to implement effective waste management practices. This may involve facilitating and offering guidance on proper disposal or recycling options for outdated or end-of-life equipment – ensuring that e-waste is managed responsibly and diverted from landfills or providing guidance on waste reduction strategies. By working together, Cinionic and cinema exhibitors minimize waste generation, increase recycling rates, and promote circular economy principles.

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**8 Knowledge sharing and education**

Cinionic plays an educational role by sharing knowledge, best practices, and industry trends related to sustainability. We can provide consultancy or workshops to cinema exhibitors on topics like energy management, waste reduction, sustainable procurement, and product lifecycle analysis. By equipping cinema exhibitors and their staff with the knowledge, skills, and tools to operate technology and equipment efficiently, we contribute to energy savings, lifecycle management, and sustainability performance. At the same time, we empower them to make informed decisions and drive sustainability improvements.

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**9 Sustainability reporting and certifications:** Cinionic supports cinema exhibitors by providing sustainability reporting data and certifications for their offerings. This information can assist exhibitors in tracking and reporting their sustainability progress, meeting regulatory requirements, and communicating their sustainability achievements to stakeholders. Certifications such as eco-labels add credibility to the sustainability claims of both Cinionic and cinema exhibitors.

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Cinema exhibitors and Cinionic create mutually beneficial partnerships to advance the adoption of sustainable practices within the cinema industry and contribute to a more environmentally responsible future.



### 3. Cinionic's commitment to sustainable cinema

The road towards a sustainable cinema environment is an end-to-end responsibility of all parties involved. It requires collaboration and collective action, with many small steps to be taken in the entire cinema value chain. Cinionic actively engages with industry partners, customers, and stakeholders to promote awareness and encourage sustainable practices. By sharing knowledge, best practices, and expertise, Cinionic strives to inspire others in the industry to adopt sustainable strategies and contribute to a greener future.

As the market leader in cinema technology, Cinionic is committed to sustainability with significant ongoing initiatives in support of global sustainability goals. As part of the extended Barco community, Cinionic shares the same leading policies in environmental sustainability<sup>2 3</sup> as our parent company.

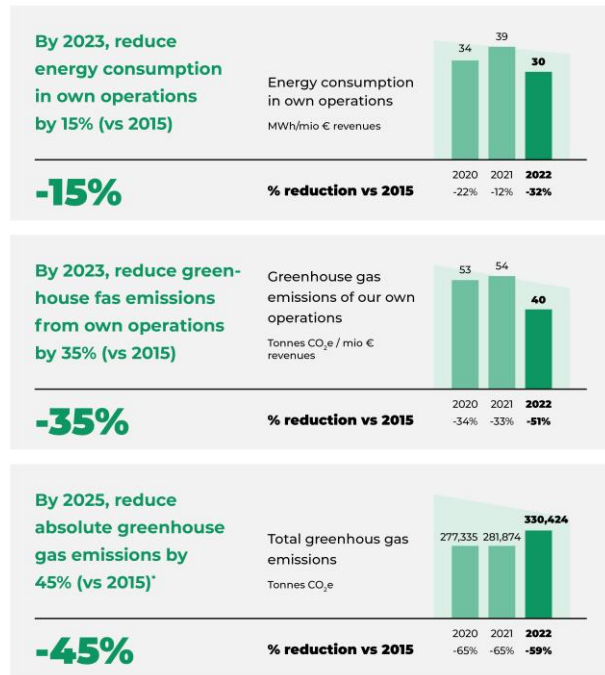
Sustainable impact is an integral part of our corporate strategy. Environmental Sustainability Goals (ESG) at Cinionic encompass multiple dimensions including the planet, our people, and the communities we serve & operate within -where we will elaborate on the 'planet' pillar in this report. Our ambition towards a greener cinema is centered around lowering our customers' environmental footprint and reducing our own footprint further. Clear goals reflect our ambition and allow us to keep track of progress.

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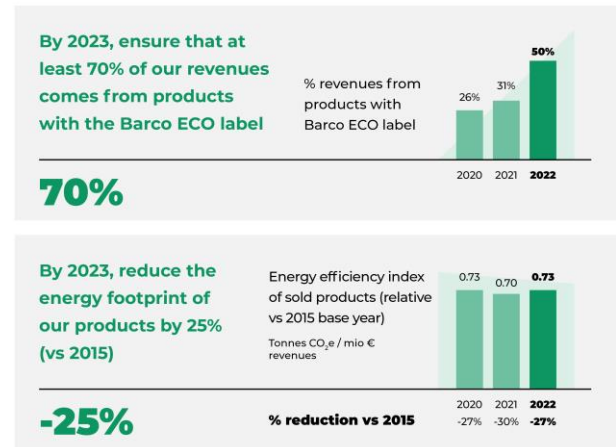
<sup>2</sup> For our sustainability commitments follow: [About Barco - Sustainability](#)

<sup>3</sup> For our 2022 sustainability results follow: [Barco Annual Report 2022 - Planet, People & Communities](#)

## 1. Take science-based climate action



## 2. Enable our customer to lower their environmental footprint



\* Target approved by Science Based Targets initiative, in line with the intergovernmental panel on climate change (IPCC) 1.4C scenario, covering Scope 1, 2 and 3 emissions. As SBTi requires targets to cover a minimum of 5 years from the date the target is submitted to the SBTi for validation, the target year has been set to 2025.

Figure 1: Our primary sustainability targets and achievements 2022

Next to these primary targets, we have also specified a number of supporting targets to achieve by 2023, namely, to send zero waste from our own operations to landfills, recycle 80% of solid waste in our own operations, and that at least 75% of new products released to market have a Barco ECO label A or higher, which is addressed in section 0 in more detail.

We are on track to achieve our 2023 sustainability goals vs. our 2015 benchmark. 2022 demonstrated significant progress in reduced energy consumption and greenhouse gas emissions, as displayed in Figure 1, whereas, for our customers, we are delivering substantially more products with ECO label consuming significantly less power during their lifecycle.

For cinema specifically, we are ahead of the company's overall achievements of enabling our customers to lower their environmental footprint with substantially more solution deliveries with Barco ecoScore 'A' thanks to the Barco Series 4 projection portfolio. Consequently, Barco Series 4 also leads to much lower energy footprint due to nearly 100% laser deliveries, which save about 70% energy during the product's entire product lifecycle.

## 4. Lowering our customer’s environmental footprint

In the following section, we will deep dive into how we can lower the environmental footprint of our customers, exhibitors, and partners. We believe that only through a joint effort from all parts of the cinema value chain true differences can be made on the road towards a greener cinema.

We identify four key areas that serve as a leverage to creating impact on our customer’s side;

1. Laser is the green choice for the delivery of cinema
2. Eco-driven design & production
3. Lifetime extension and lifecycle management
4. Circular economy & as-a-Service business models

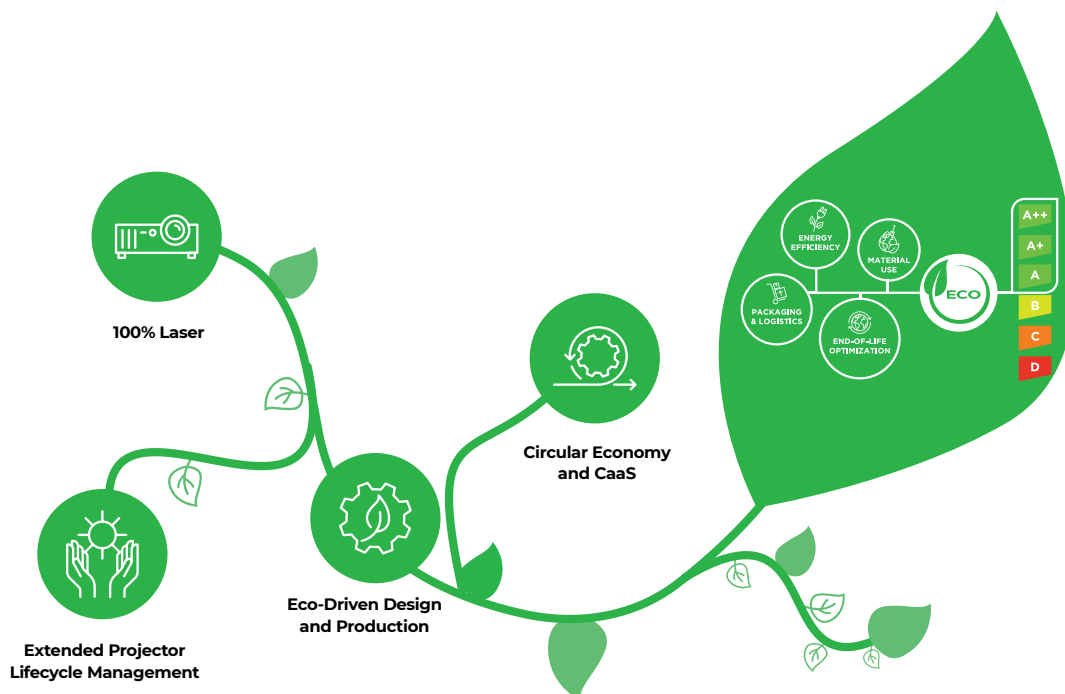


Figure 2: Four areas that serve as a leverage to creating impact on our customer’s side

### Laser is the green choice

In 2014, Barco announced the first laser projector<sup>4</sup> for digital cinema, offering the promise of laser-powered entertainment destinations with unparalleled cinematic presentation. Now, almost 10 years later, we’ve deployed more than 35,000 laser solutions worldwide, with laser as the new standard for cinema projectors. This makes Cinionic *the* laser company with the ability to deliver a leading laser solution for every screen – from boutique micro-theaters to giant premium experiences as well as laser

<sup>4</sup> Learn more about Barco laser projectors: [Barco announced the first laser projector](#)

upgrades for Barco series 2 lamp projectors. Cinionic is the only technology provider with a 100% laser-enabled portfolio. The move to laser offers cinemas an array of benefits ranging from enhanced visual performance, increased moviegoer satisfaction, operational efficiencies, and the ability to use fewer resources. Today, laser projection by Cinionic is considered the most sustainable projector choice for cinema exhibitors today<sup>56</sup>.

- Energy efficiency:** Cinionic laser solutions – both new projectors as laser light upgrades for Series 2– are amongst the most energy-efficient in the industry and deliver significantly more energy-efficient compared to traditional lamp-based projectors. They require less power both to operate and on standby thanks to Barco’s EcoPure™ technology, lowering energy consumption and reducing carbon emissions. This energy efficiency translates into cost savings for cinema exhibitors in the long run.

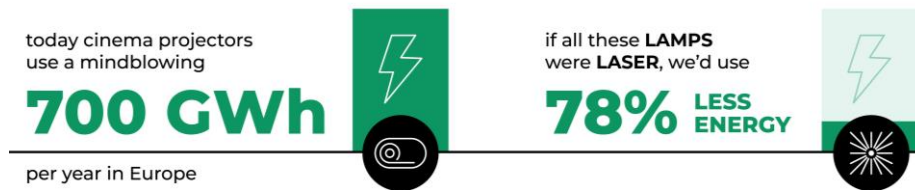


Figure 3: Anticipated energy savings of laser vs. xenon

- Longer lifespan:** Cinionic’s broad range of laser projection solutions have a far longer lifespan (40,000+ hours) than lamp-based projectors at consistent performance and light quality when connected to Cinionic Cloud. Traditional projector lamps require frequent replacements, which trigger the need for regular service interventions, generate waste, and incur additional costs. Laser projectors, on the other hand, can last significantly longer, reducing the frequency of interventions, replacements, and associated waste.
- Reduced waste and landfill disposal:** Traditional lamp-based projectors generate considerable waste (lamps and packaging) due to the frequent replacement of lamps. Laser projectors eliminate the need for lamp replacements, thereby minimizing the waste generated over a lifetime by cinema exhibitors. This not only reduces environmental impact but also reduces operational costs associated with waste disposal, logistics, and warehousing.
- Improved image quality:** Our laser projectors with Barco AIM™ and Barco Colorgenic™ technology offer superior image quality compared to traditional projectors and other laser

<sup>5</sup> Learn more about green credentials of laser: [Sustainability in cinema: why you should go green.](#)

<sup>6</sup> Celluloid Junkie: [CJ Green: A Sophisticated Heat Beam Called a “Laser”](#)

solutions. They provide brighter and more vibrant images with enhanced color accuracy and contrast. As a result, cinema exhibitors can deliver an immersive and unmatched visually appealing experience to the audience extremely efficiently in terms of power usage. This, in turn, contributes to energy savings without compromising quality.

- **Reduced and optimized maintenance:** Barco's fit & forget design drives lower maintenance frequency compared to other and previous generation projectors. Other projectors often require regular maintenance, such as cleaning and lamp replacements, which can be time-consuming and costly. Laser projectors, on the other hand, have fewer moving parts and typically require minimal maintenance.
- **Modularity:** Modularity drives cost efficiency and ease of maintenance. Barco series 4 has five common spare parts over the entire portfolio and uses only six Barco Laser Plate™ spare parts to service all light source configurations. There is no need to replace the complete light source anymore, resulting in reduced downtime and operational disruptions for cinema exhibitors.
- **Lower total cost of ownership:** The significant savings achieved all offset any upfront investment in laser compared to traditional projectors, their longer lifespan, lower energy consumption, reduced maintenance needs, and elimination of lamp replacements contribute to a lower total cost of ownership over time. Cinema exhibitors can benefit from long-term cost savings, making laser projection a more economically viable and sustainable choice.

Considering these factors, Cinionic laser solutions are the sustainable option for cinema exhibitors today, offering improved energy efficiency, longer lifespan, reduced waste generation, enhanced image quality, remote monitoring & control, lower maintenance requirements, and overall cost savings.

## Eco-driven design & production

### Introducing the ecoScore

As a leading company in cinema, Cinionic recognizes the importance of environmental responsibility, and we have been proactive in promoting sustainability with the innovative Barco ecoScore program, which ensures that new products we bring to market are sustainable over their whole lifecycle, which helps our customers in their journey to advance their overall sustainability score by making informed purchasing choices and improve their operations.

### Understanding the ecoScore

The ecoScore is a comprehensive rating system developed by Barco that assesses the environmental impact of products throughout their lifecycle. It aims to provide customers with a transparent and

standardized measure of a product's eco-friendliness, enabling them to make informed choices aligned with their sustainability goals. The scoring system covers various aspects of a product's lifecycle, including production, energy consumption, materials used, recyclability, and disposal.

### **Transparency and customer empowerment**

Transparency is a key principle of the Barco ecoScore. Barco provides clear and accessible information about the environmental performance of its products, enabling customers to make informed decisions. Through comprehensive product labeling and online resources, exhibitors can understand the factors influencing the ecoScore, and select products that align with their sustainability objectives.

### **Energy efficiency and reduced carbon footprint**

One of the key factors considered in the Barco ecoScore is energy efficiency. Barco designs its projectors and displays with advanced technologies that minimize power consumption without compromising performance. By utilizing energy-efficient components, optimizing algorithms, and implementing intelligent power management systems, Barco's products contribute to significant energy savings over their lifespan. This not only reduces operating costs for customers but also helps in lowering carbon emissions from regular operations.

### **Recyclability**

Barco prioritizes the use of sustainable materials in its products, considering factors such as recyclability, durability, and non-toxicity. Barco promotes a circular economy model by incorporating recycled or recyclable components, reducing hazardous substances, and ensuring long product lifespans. Over 90% of materials used are recyclable. Moreover, the Barco Series 4 SP2K sub-range uses 100% recycled aluminum for its chassis and recycled plastics for the majority of plastic parts resulting in a better overall ecoScore. At the end of a product's life, Barco facilitates responsible recycling or proper disposal, ensuring that valuable materials are recovered, and environmental pollution is minimized<sup>7</sup>.

### **Conclusion**

Barco EcoScore represents a significant step forward in the cinema industry's journey toward sustainability. By integrating environmental considerations throughout a product's lifecycle, we ensure that its offerings meet the highest standards of eco-friendliness. Through collaboration, innovation, and customer empowerment, we aim to drive positive change and inspire the industry as a whole to embrace sustainable practices. With our ecoScore, customers can confidently choose products that not only deliver exceptional performance but also contribute to a greener and more sustainable future.

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<sup>7</sup> For more information on recycling, visit: [Waste of electronic equipment for customers](#)

## ecoScore in practice

Starting with the design, we harness Barco's ecoDesign policy, which rates products using the Barco ecoScoring framework defined in ISO14021 (as validated by EY). In practice, Barco ecoDesign means that each product sold today is designed<sup>8</sup> and evaluated based on a four-point eco-axis, leading to an overall ecoScore for the product. The four points of the axis are shown below:



**Energy** - Increase efficiency transforming electrical energy to the product's intended function, including standby, normal mode, off mode.



**Materials** - Reduce the use of (potentially) hazardous substances that are currently or in the future restricted. Improve the use of materials that are more environmentally friendly in terms of production or sourcing.



**Packaging & Logistics** - Optimize packaging design to reduce the amount of material used and logistic footprint; improve the potential to use and recycle the packaging material afterwards.



**Total Lifecycle** - Improve material efficiency, avoid the product to become early waste, and reduce the impact at end of life; reduce the amount of non-recyclable materials.

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<sup>8</sup> At every design stage, every design decision is evaluated based on the four-point eco-axis for the ecological impact of that decision.

When you consider this ecoScore approach for cinema, Cinionic leads the industry with its green credentials in the following ways:

### **Energy**

As discussed in the benefits of laser above, laser projection allows for reduced power consumption over the lifetime of use. The overall conversion from (xenon) lamp-based projectors to laser projection results in increased power efficiency of approximately 70% (actual efficiency calculated based on specific use parameters). This efficiency is further enhanced with the smart onboard projector intelligence that allows our latest models to reduce their power consumption to an industry-leading 3 Watts in ecoMode and an industry low of 0.15 Watts in standby.

### **Sustainable Materials**

The materials used, as well as how they can be disposed of, impact a product's level of sustainability. Firstly, the 100% laser-driven projection portfolio eliminates the hazardous materials used in xenon lamps. These contain toxic substances such as xenon gases, which require very careful handling and have a negative environmental impact in the disposal process. Similarly, for cooling liquid, which in Barco Series 4 will last a lifetime and does not require any refilling. Besides hazardous materials, both xenon projectors and other laser projectors offer paper filters that need to be replaced within a certain time frame to ensure product performance. Barco chose a green alternative by replacing all paper filters with washable filters in the Barco Series 4 design, allowing for less waste. Recyclability of materials is another area where the Barco Series 4 design excels.

All our products comply with all legal standards in all regions where we are active. Apart from complying with the usual REACH, RoHS, and WEEE as per EU regulations and directives, Barco operates using specific documentation listing directions regarding material usage. The list of materials is publicly available<sup>9</sup>, and processes are in place to ensure that any design of new technology and procurement of raw materials, parts, and sub-assemblies is compliant with these lists.

### **Packaging & Logistics**

All packaging material is reduced to the essentials for our cinema products in terms of minimum usage, optimized for logistics and storage, and (mostly) recyclable packaging. The whole Barco Series 4 design is made with maximum integration in mind; fully integrated cooling and media servers allow us to pack and ship fewer separate boxes to the end customer and thus reduce the impact on the planet during transport. Besides integration, lots of thought has been put into the modularity of the design. For example, we limited the number of spare parts used in the Series 4 design and made parts

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<sup>9</sup> See: [About Barco - Sustainability](#)



interchangeable across the complete product range. This allows for more efficient stock management for service purposes.

**Total Lifecycle**

Our projectors are designed for easy disassembly and repair; materials are categorized for recycling purposes. We maximize the lifetime of certain parts of the projector by making them reusable in the latest Series 4 laser generation. For example, customers who own a lamp-based Barco Series 4 design can reuse their current pedestal, lens, and 3D kit to match their new Barco Series 4 projector. The maintenance of the Barco Series 4 laser portfolio is reduced to a minimum, with only annual intervention needed, thanks to the presence of smart sensors which indicate maintenance needs. Products are designed for the modularity of critical components, allowing many products to be upgradable. We make use of modular laser plates to restore the brightness of part of the laser light source. This way, we eliminate the need to replace a whole light source in case of a deficit. Finally, each cinema projector has a service, repair, and refurbish model that allows for lifetime extension.



Figure 4: the eco-driven design characteristics of the Barco Series 4 family


The efforts on all dimensions of the methodology leads to the following ecoScore for every sub range within the Barco Series 4 portfolio:



Figure 5: ecoScore<sup>10</sup> of every Barco Series 4 projector

### Barco Series 4 – ecoScore A-rated

In 2019, Cinionic introduced the Barco Series 4 family<sup>11</sup> of next-generation laser projectors and expanded the lineup to offer models for every type of screen. The ecoScore A and A+ rated family of laser projectors was quickly embraced by leading exhibitors, with commitments for more than 10,000 units since launch. Alongside the eco-credentials of Barco Series 4, the family harnesses on board smart technology and thoughtful design to deliver a greener cinema projection solution with benefits to exhibitors and moviegoers:



**A rating Ecoscore for SP4K-40**

The SP4K-40 cinema projector receives an A score in Barco’s ecoscore methodology mainly for its modular product design optimized for upgradeability and maintenance. The projector is packaged in recycled and/or recyclable materials. To conclude, the SP4K-40 is a great energy efficient product with a low-power standby-mode and ECO-mode.

1. **Barco AIM™** Setting a new visual standard for moviegoers, Series 4 brings native 4K resolution using the industry leading chipsets for higher contrast and enhanced uniformity. The Barco AIM™ (Active Image Management™) technology guarantees flawless images through the implementation of Barco patents on image control, processing and driving, enabled through the years of experience in cinema.

<sup>10</sup> More about Barco ecoDesign and ecoScore initiatives can be found at: [Barco ecoScore](#)

<sup>11</sup> Learn more about Barco series 4: [Barco Series 4](#)

2. **Barco EcoPure™** Specific Barco Series 4 models smartly manage power consumption to an industry-leading 12 lumen/Watt. In eco-mode, it consumes even less than 3 Watt. What's more, remote wake-up on LAN is possible for scheduled maintenance or ingestion of content.
3. **Ready for tomorrow, today** Barco Colorgenic™ technology opens the full P3 color space and more than 98.5% Rec. 2020. The projection platform enables future innovations like 4K 120fps.high frame rate (HFR). The Barco Series 4 delivers stunning results from day one and consistently throughout the product's lifetime.
4. **Fit & forget design** drives lower maintenance frequency, more predictive maintenance, and a long lifetime. Modularity drives cost efficiency and ease of operations. This silent-running projector is optimized with integrated lasers for boothless environments. There are only six Barco Laser Plate™ spare parts to service all light source configurations, so there is no need to replace the complete light source anymore. Intelligent systems alert you when the filters need cleaning – a simplified process thanks to the toolless cover and filter handling.
5. **Freedom of choice** Barco Series 4 models come in many different configurations offering freedom of choice. Compatible with a range of lumens, compatibility with both current Barco lenses and selected third-party lenses, and even the existing pedestal – allowing the move to a new generation of projectors while maximizing the reusability of current peripherals.

## Lifetime extension & lifecycle management

While Barco Series 4 offers a modular approach to its components and requires minimal maintenance interventions, there are still many exhibitors with previous projector generations. There are three ways that we support lifetime extension:

1. Enhanced service and support
2. Fleet management strategy
3. Laser Light Upgrade kits (for Series 2 projectors)

### Enhanced service and support

Cinionic and its partners operate a global network of certified and experienced cinema professionals dedicated to supporting exhibition operations. Our enhanced service and support are designed to help our customers maintain and protect their existing projection technology. Today, Cinionic offers a wide array of service and support solutions including, but not limited to:

- **Extended warranty** with manufacturer warranty and service
- **Preventative maintenance** to avoid issues before they happen and keep technology running at its best

- **Certified training** through the Cinionic Academy, equipping cinema teams around the world with the know-how to look after and service their projectors
- **Manufacturer servicing** provides the ability to have our certified team perform engine cleaning and offers depot repair facilities to protect, and in some cases, extend the lifetime of the projector

### **Fleet management strategy**

Cinionic has the privilege of being trusted by 70% of the world's top exhibitors and regularly consults on fleet management approaches. Through fleet management strategies, we can work hand-in-hand with exhibition partners to maximize the lifetime of existing fleets and only renew where and when needed. Our long-term approach enables renewal and replacement strategies that meet a customer's needs today and tomorrow.

Using a thoughtful and consultative approach to fleet management, we can extend the usefulness of new and existing hardware by matching desired outcomes to the right combination of technology, hardware commonality, and services. Through fleet management support, we can minimize waste and redundancies for some of the largest cinema fleets in the world.

### **Laser light upgrade kits (for Series 2 projectors)**

Cinionic's Laser Light Upgrade<sup>12</sup> kit allows for existing xenon projectors (introduced in 2010) to be upgraded with a laser light source. The upgrade, performed in the field, delivers many of the performance, operational, efficiency, and environmental benefits of newer laser projectors to an existing projection fleet. The upgrade also extends the lifetime of Series 2 digital cinema models by as much as 50% (variable based on projector age). Furthermore, the upgrade also opens the door to warranty extension far beyond standard industry practices.

The innovative Laser Light Upgrade program contributes to our 2nd global ESG goal to reduce the energy footprint of our products by improving the energy footprint of existing products in the field.

The program further accelerates the industry's conversion to laser, significantly reducing the overall energy footprint of cinema projection. With Laser Light Upgrades, Cinionic offers an economical way to significantly extend the lifetime of lamp projectors in the field and reduces the environmental impact of delivering cinema. Today, Cinionic offers a complete range of Laser Light Upgrade solutions to offer an upgrade for any Barco Series 2 projector in the field.

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<sup>12</sup> For more information of laser light upgrade visit: [Cinionic - Laser Light Upgrade](#)



*Figure 6: A Cinionic Laser Light Upgrade for every Barco series 2 – portfolio May 2023*

## Circular economy & as-a-Service business models

The fourth pillar in Cinionic's green credentials is our commitment to optimize equipment and material use through extensive lifecycle management for cinema visualization technology. Cinionic engages in Circular Economy programs harnessing technological and business model innovation. Today, Cinionic uses multiple approaches to further the ability to realize a circular economy driven cinema industry

1. **Classical circular economy concepts** like service, repair, and re-use (as outlined above) are optimized to reduce the service needs over the lifetime of new products by ~75% compared to earlier generation products.
2. **Remanufacturing and refurbishment** of existing equipment to bring on par with today's standards and to redeploy in the field with minimum need of new materials while extending the lifetime significantly
3. **New Sign-up models** - introduced in 2020 - that offer outcome-based as-a-Service projection system solutions in a usership model, where Cinionic retains ownership and is fully responsible for the end-to-end lifecycle management of the solution through its managed services offering while the exhibition partner takes full benefit of its usage and performance.

All approaches are available for new and existing products to provide the market with options to realize greener cinema through circular economy principles.

## 5. Conclusion

Cinionic is the ideal companion for advancing sustainability in the cinema exhibition industry. By offering sustainable product offerings, investing in eco-friendly research and development, and promoting supply chain transparency, Cinionic empowers cinema exhibitors to reduce their environmental impact, appeal to an eco-conscious audience, and achieve significant power and cost savings up to 70% compared to previous generations of technology.

Our industry-leading approach to sustainability starts with our own operations and seeks to benefit customers through a comprehensive suite of commitments that address how we can all play a part in achieving a more sustainable cinema industry.

By taking into consideration the impact of every decision and stage in the deployment of the cinema experiences around the globe, Cinionic enables exhibitors to position themselves as industry leaders and ensure long-term success in a rapidly changing world. Ultimately, working to ensure that, together with our partners in exhibition, we can all go green on the big screen.

# GO GREEN ON THE BIG SCREEN

2023 EDITION

For more information, visit  
[cinionic.com/sustainability](https://cinionic.com/sustainability)

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