

Guardian

ENVIRO

CCL SECURE



THE NEXT STEP IN SUSTAINABLE SUBSTRATE

GUARDIAN™ ENVIRO is a more sustainable substrate that helps central banks reduce their use of fossil feedstocks.

This is done by gradually substituting fossil-based hydrocarbons for greener alternatives like used cooking oil and forestry waste, to unlock the next staging point for your green transition.

Fossil feedstocks can be phased out in a step-by-step process that incorporates bio-renewable substitutes into the polymer film. These bio-based elements can include used cooking oil, a waste product of the hospitality industry, or tall oil, a by-product of sustainable forestry.

Central banks are free to select the level of substitution. This provides ongoing control over costs while also supporting a flexible, staged and strategic transition to even more sustainable substrate.

PRODUCT PERFORMANCE IS GUARANTEED

GUARDIAN ENVIRO offers a sustainable step change but requires absolutely no compromise on cash cycle performance. Reducing the use of fossil feedstocks does not impact durability, security or banknote design.

The substrate is manufactured using the same process as traditional GUARDIAN™ notes. Sustainable inputs will be chemically identical to the fossil feedstocks that they replace. This means both banknotes deliver:

- durability three-to-five times greater than cotton-paper
- security features proven to prevent counterfeits
- environmental benefits including lower emissions, reduced use of raw materials, and globally demonstrated pathways to recycling all banknotes once they reach end-of-life.

The only material difference is that GUARDIAN ENVIRO helps reduce the use of fossil feedstocks.

STRONGER, SAFER, CLEANER – AND EVEN GREENER

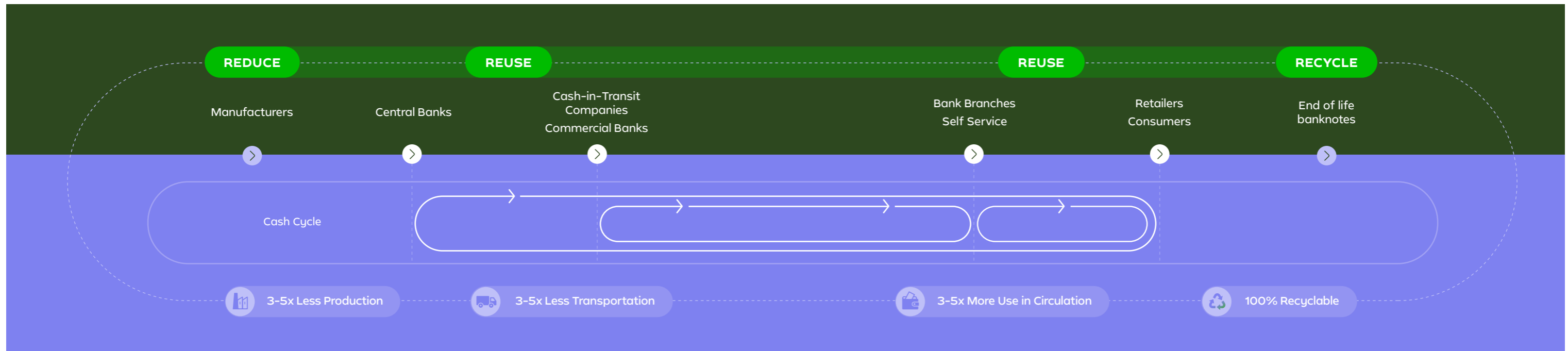
GUARDIAN banknotes have helped central banks minimise the environmental impacts of issuing cash since 1988.

In addition to being fully recyclable, their durability means they can be re-used for longer, reducing procurement volumes and increasing seigniorage. That's why GUARDIAN remains the first step to sustainable banknotes. Savings from the initial transition can then be re-invested to drive sustainability further by upgrading to GUARDIAN ENVIRO.

The additional environmental advantages of GUARDIAN ENVIRO are backed by compliance with International Sustainability and Carbon Certification – a globally recognised framework for verifying the characteristics of sustainable feedstocks.

ISCC also provides the methodology, rules and guidelines to track accredited sustainable feedstocks throughout the supply chain, including through an active auditing process.

This independent accreditation and accounting system provides central banks with a transparent, verifiable and standardised method of documenting environmental advances, enabling credible communication with stakeholders and streamlining sustainability reporting.



THE ISCC ‘MASS BALANCE’ METHOD

There are several schemes under the umbrella of ISCC, reflecting the variations between industrial processes. Each is underpinned by a range of approaches to accounting for sustainable feedstocks within supply chains. GUARDIAN ENVIRO complies with the ‘mass balance’ method.

Mass balance is a chain-of-custody model designed to support manufacturing that mixes fossil feedstocks with sustainable alternatives.

CCL Secure has chosen mass balance because it enables central banks to increase the use of sustainable feedstocks over time incrementally.

The mass balance method does not guarantee that the sustainable feedstocks are ‘physically’ there. Instead, it relies on detailed bookkeeping to track these as a proportion all feedstocks used. This provides central banks with accurate information about the percentage of final product produced using sustainable feedstocks, as opposed to fossil raw materials.

CLAIMING ISCC FOR THE FINAL BANKNOTE

All GUARDIAN ENVIRO products will be certified through the ISCC process up to the point of dispatchment to finishing print works. Under ISCC rules the certification of the final banknote would require subsequent stakeholders in the value chain to be accredited too.

As sustainability reporting requirements continue to evolve, ISCC is the largest, most respected, and widely recognised system, with significant potential to streamline reporting.

LEVERAGING INNOVIA FILMS’ EXPERIENCE WITH ISCC

Sustainable feedstocks are incorporated into GUARDIAN ENVIRO during the production of polymer film – a stage of the manufacturing process that is undertaken by CCL Secure’s sister company, Innovia Films. As the sole producer of the specialised polymer film used in all GUARDIAN banknotes, known as Propanote™ Clarity C, Innovia Films will play a key role.

Innovia Films has years of experience working with the ISCC mass balance model, and CCL Secure has leveraged this deep in-house knowledge during development of GUARDIAN ENVIRO.

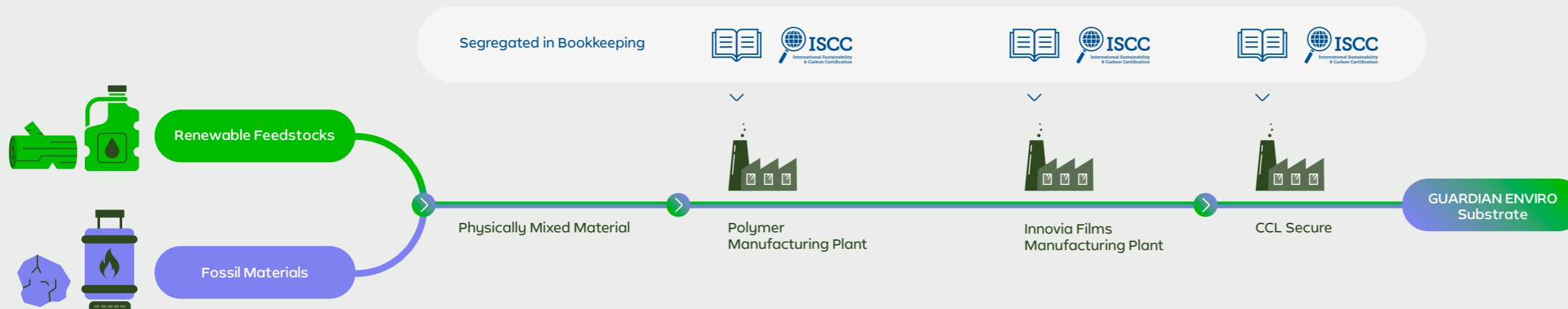
That experience provided a strong starting point for the selection of sustainable feedstocks. It will also support ongoing compliance with requirements under ISCC. This means central banks can have complete confidence GUARDIAN ENVIRO will provide a cost effective, compliant and efficient pathway to reaching sustainability goals.

FEEDSTOCKS ARE INTERCHANGEABLE

The ISCC mass balance model requires alternative feedstocks to be chemically interchangeable with their fossil equivalent, since the two are mixed in one industrial process.

This means central banks can be assured GUARDIAN ENVIRO will perform to the same level as traditional GUARDIAN banknotes in terms of durability, security, design and recycling.

Accounting for Feedstocks under Mass Balance



Scan the QR code to learn more about mass balance

TAKE THE NEXT STEP, FOR A GREENER WORLD

GUARDIAN ENVIRO supports central banks to develop their roadmap to sustainable outcomes. It builds on the significant environmental advantages of GUARDIAN substrate by providing new ways to reduce the use of fossil feedstocks.

This is an important step, but not one that can be achieved overnight. That's why CCL Secure has ensured central banks retain control over the cost and speed of transition by nominating the proportion of sustainable substrate we use.

The ISCC framework ensures sustainability outcomes can be clearly accounted for and communicated to stakeholders as part of a broader strategy to reduce environmental impacts. Using the mass balance method guarantees there will be no diminution of product performance in the cash cycle, since substitute feedstocks are chemically identical to their fossil equivalent.

TO RECAP, GUARDIAN™ ENVIRO:

- retains all durability, security, and sustainability features of GUARDIAN banknotes
- supports a controlled transition away from fossil feedstocks
- complies with rigorous and independent ISCC accounting
- streamlines environmental reporting and data formats.

Contact CCL Secure for more information about how to map out a pathway to more sustainable banknotes, lower emissions, and increasingly circular markets supported by recycling at end of life.

FIND OUT MORE ABOUT GUARDIAN™ ENVIRO

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