# Netherlands shows how bricks, data and procurement can make UK construction circular



The editorial position in Richard Steer’s Building piece is clear: the UK cannot keep treating demolition as disposal while we pretend the planet has an endless warehouse of materials. Steer points to a striking example from the Netherlands to illustrate what a practical, policy-backed shift toward circular construction looks like. In Amsterdam, a city intent on being fully circular by 2050 and halving virgin material use by 2030 has funded a tangible, almost charmingly tactile solution: a robot that collects, sorts and repaves with part-washed bricks salvaged from the city’s streets. The point isn’t novelty for novelty’s sake; it’s a demonstration that circular practice can be scaled, measured and embedded in daily operations. As Steer notes, this is part of a broader trend toward rethinking the built environment rather than simply recycling the same old approach. He stresses a simple, blunt line that underpins the argument: “We demolish too much, recover too little.” In other words, the circular economy is not a niche ideal but a real-world business case that can influence both performance and cost. The Netherlands’ experimentation sits within a global movement that also includes rising attention in the United States, Europe and beyond, where policy and procurement are increasingly aligned with circular objectives.

What does this look like in policy and practice, and what can the UK learn from it? The Dutch government’s long-term circular-economy plan lays out ambitious targets that inform both public procurement and infrastructure design. By 2050, the Netherlands aims to be fully circular, with a milestone of roughly halving primary abiotic material use by 2030 and a mandate that a growing share of materials in infrastructure projects be circular well before then. One concrete mechanism is the material passport, a data-rich record of a building’s or asset’s constituent materials that supports disassembly, reuse and shared value in future projects. This approach is being piloted and scaled in various forms across Amsterdam and its region, where Madaster’s material-passport platform has become a cornerstone of planning and refurbishment efforts. In practical terms, projects such as the Schiphol Trade Park near Hoofddorp have reached a landmark milestone as the world’s first business park completed with a Madaster material passport, highlighting how such data can unlock reuse potential across the lifecycle of infrastructure and real estate. Within the UK, similar attempts are already visible in the form of pilots aimed at salvaged and recycled components; for instance, a high-profile east London initiative explores building a residential block entirely from recycled materials, reflecting a growing appetite for systemic change rather than isolated experiments. These threads—policy targets, data-enabled procurement, and hands-on pilot projects—point toward a future where circularity is standard practice rather than a niche add-on.

The path toward this future is not without obstacles. In the Netherlands, the transition is framed as a national programme supported by data sharing, robust material passports and a structured approach to reuse in both construction and demolition. In parallel, in the United Kingdom and England more broadly, there is a recognition that the shift must be anchored in solid data and consistent policy signals. A 2020 government progress report on England’s recycling and recovery targets notes that while performance has improved in some areas, not all targets were met, with household recycling persistence affected by extraordinary circumstances such as the COVID-19 pandemic. Yet the report also highlights encouraging benchmarks—non-hazardous construction and demolition waste recovery figures well above the 70% target in 2018—and points to future reforms designed to harmonise recycling collections and expand producer responsibility. Beyond the core recycling targets, the report underscores the importance of data quality and transparent reporting to support embodied-carbon accounting, long-term asset management and more ambitious circular procurement. In short, the UK experience aligns with broader European learning: better data, clearer regulations and more robust frameworks for reuse and disassembly will be essential to unlocking the cost and carbon savings that circular construction promises.

In conclusion, circular construction is not a passing phase but an inevitable evolution in how we design, build and manage our infrastructure and cities. The Dutch example—where material passports, circular targets and real-world pilots are moving from theory to practice—offers a blueprint for the UK to adapt, scale and ultimately excel in a circular economy. If the winds of ESG and embodied-carbon reporting continue to rise, the next generation of construction professionals will be trained to prioritise lifecycle thinking by default. The Netherlands has shown a concrete path forward; the question for the UK remains whether we will embrace it at scale, bringing reclaimed bricks, salvaged steel and disassembly-ready designs into every major project, one repaved brick at a time.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.building.co.uk/comment/bricks-bots-and-building-back-better-why-the-uk-must-embrace-circular-construction/5137362.article), [[4]](https://madaster.com/inspiration/amsterdam-metropolitan-area-uses-material-passports-to-boost-the-circular-economy-in-the-region/)
* Paragraph 2 – [[1]](https://www.building.co.uk/comment/bricks-bots-and-building-back-better-why-the-uk-must-embrace-circular-construction/5137362.article), [[2]](https://www.government.nl/topics/circular-economy/circular-dutch-economy-by-2050), [[5]](https://www.sadc.nl/kws-completes-schiphol-trade-park-as-worlds-first-business-park-with-a-madaster-material-passport/)
* Paragraph 3 – [[3]](https://www.tno.nl/en/sustainable/system-solutions-environment/transition-pathways/circular-construction-infrastructure/), [[6]](https://www.gov.uk/government/publications/progress-report-on-recycling-and-recovery-targets-for-england-2020/progress-report-on-recycling-and-recovery-targets-for-england-2020)

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## Bibliography

1. <https://www.building.co.uk/comment/bricks-bots-and-building-back-better-why-the-uk-must-embrace-circular-construction/5137362.article> - Please view link - unable to able to access data
2. <https://www.government.nl/topics/circular-economy/circular-dutch-economy-by-2050> - Europe's Netherlands is pursuing a circular economy with ambitious long-term targets. The government aims for a fully circular economy by 2050, supported by the National Programme on Circular Economy 2023-2030. The plan emphasises four strategic approaches: reduce raw material use, substitute with sustainable materials, extend product life through reuse and repair, and prioritise high-grade recycling. To accelerate progress, targeted measures cover sectors such as housing, procurement and education, with milestones including reducing primary abiotic material use by around 50% by 2030. The document also situates the Netherlands within broader European cooperation through platforms like PACE. Data sharing will drive procurement.
3. <https://www.tno.nl/en/sustainable/system-solutions-environment/transition-pathways/circular-construction-infrastructure/> - The Netherlands is mid-way through a transition to a circular construction economy, with TNO supporting the shift. The organisation aligns with government goals to cut greenhouse gas emissions and reduce primary material use, aiming for a substantial material transition by 2030 and near decarbonisation by 2050. The article outlines challenges in predicting performance of new sustainable materials and stresses the need to expand the National Environmental Database with circular and bio-based materials. It highlights research into reducing use of primary raw materials, increasing recycling, and improving data quality, including PCR rules for asphalt and materials lifecycle assessment integration across construction.
4. <https://madaster.com/inspiration/amsterdam-metropolitan-area-uses-material-passports-to-boost-the-circular-economy-in-the-region/> - Together with Madaster, the Amsterdam Metropolitan Area launched a material passport pilot in 2019 to stimulate the regional circular economy. The plan offered each participating municipality a passport for one building, enabling government bodies to assess the material, circular and financial value of assets and to plan reuse during renovation. Madaster's platform records material identities, origins, disassembly options and current location, turning buildings into documented materials stores. The ambition is to accelerate transition to circular construction and demolition practices across the region, with data-led procurement, education, and communication packages to inform authorities and stakeholders, and enable better long-term asset management.
5. <https://www.sadc.nl/kws-completes-schiphol-trade-park-as-worlds-first-business-park-with-a-madaster-material-passport/> - Schiphol Trade Park in Hoofddorp became the world's first business park to be completed with a Madaster material passport, as part of an SADC development by KWS. The passport records identities, origins and potential for disassembly and reuse, helping preserve material value for future projects. The project highlights include biobased paving materials and 100% recycled asphalt, demonstrating practical pathways to circular infrastructure. The passport supports future reuse of components and extends circular thinking beyond buildings, with the aim of expanding high-quality material recovery across infrastructure and real estate, securing long-term value for the client and region, and inspiring future projects.
6. <https://www.gov.uk/government/publications/progress-report-on-recycling-and-recovery-targets-for-england-2020/progress-report-on-recycling-and-recovery-targets-for-england-2020> - This UK government progress report assesses England's progress towards recycling and recovery targets set under the Waste Framework Directive. It notes improvements in some areas but failure to meet the 2020 household recycling target of 50% due to the COVID-19 pandemic. The report confirms a 2018 non-hazardous construction and demolition waste recovery rate of 93.8%, well above the 70% target, and identifies planned reforms to improve consistency in recycling collections, plus schemes such as a Deposit Return System and Extended Producer Responsibility. It also outlines future milestones for municipal waste recycling and the need for robust, timely data to support.
7. <https://www.grosvenor.com/news-insights/some-of-uk%E2%80%99s-first-salvaged-steelwork-reused-in-holbein-gardens-retrofit> - Holbein Gardens in London demonstrates material reuse within the UK, reporting salvaged steel being reused in a Grosvenor redevelopment. The project, a zero-carbon office transformation, reduces embodied carbon by reusing nine tonnes of existing steel and sourcing fifteen tonnes of reused steel, cutting emissions per square metre. It highlights practical challenges of salvage, including cost and stock availability, and shows how collaboration with engineers and fabricators enables a viable reuse strategy. By maintaining a high proportion of existing structure and enabling downstream reuse of components, the project exemplifies circular design and the potential to expand the second-hand materials market globally.