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Reducing carbon footprint through sustainable renovation and innovation

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Several botanical gardens have, next to historical buildings, energy-consuming glasshouses. The combination of historical buildings and glasshouses with obsolete techniques results in a high carbon footprint. Next to the production of renewal energy, the climate crisis urges a drastic change in how we renovate and heat our buildings to become climate neutral by 2045. To this end, Meise Botanic Garden has developed an energy master plan in which the primary energy requirement will be reduced by more than half in the coming decade. It fits in with the goal of the European Commission to reduce the greenhouse gas emission by 2030 to at least 55% compared to 1990. It will be demonstrated how the combination of innovative heating techniques, renewable energy, sustainable renovation and circular use of building materials will make it possible to become climate neutral. It will be shown that public gardens can lead by example, promoting sustainable practices and responsible energy consumption. In doing so public gardens do not only lower their ecological footprint but also serve as an inspiration to all who visit, reinforcing the importance of conservation and sustainability.