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## 1. Expansion of sustainable irrigation of public green spaces

- ✓ Optimize irrigation for extreme heat periods (e.g., deep root irrigation in trees, pipe cross sections, water reserves, drip irrigation close to the ground, ensure sufficient capacity exists in the municipality)
- ✓ Implement decentralized water storage for trees (e.g., Sponge city, Aqua Bag)
- ✓ Ensure sufficient infiltration areas for trees and shrubs (i.e., soil moisture from rain)
- ✓ Implement appropriate, water-efficient irrigation of green areas (through sensors and GIS), depending on the type and condition of the vegetation/trees, location factors (e.g., root area, soil, microclimate, root and groundwater depth) and weather (air temperature, wind and solar intensity)
- ✓ Change to heat, drought and pest resistant trees (e.g., silver lime) and shrubs with high potential leaf area indices (e.g., winter bark, pedunculate oak)
- ✓ Increase the density of vegetation in existing green areas (i.e., parks, streets, squares, green parking lots)

## 2. Sustainable design and irrigation of private green spaces

- ✓ Target advice to specific groups (e.g., private and institutional forest and garden owners, companies in industrial and commercial areas, farmers, forestry companies)
- ✓ Implement a tree protection program (similar to Vienna)
- ✓ Initiate a tree support program for new trees in gardens (similar to the city of Graz)
- ✓ Conserve green areas and/or unseal private parking spaces and inner courtyards by means of green area target values in the development plan, considering green roofs, façades/balcony greening and blue areas

3. **Require green roofs on new buildings and roof renovations from a minimum flat roof area of 200 m²** (adjust K ROG or BO) with minimum requirements for the substrate (quality, strength).

4. Development of a **subsidy program for green roof areas**, and for façade greening.

5. Specify a **minimum value** of 0.50 to 0.70 for the **reflectivity of new/renovated roof and road surfaces** (considering areas with special designations such as monuments, the old town center, etc.).

6. **Increased shading in public areas** through addition of trees, arbors, awnings and solar panels (with a minimum reflection over all angles of incidence and and over the entire installation area of 40%), as well as by optimizing the maximum building height.

7. **Integrated green and blue space planning for urban development areas**, taking into account the tree cadastre, green roofs and façades, the biotope network, gardens, agriculture, infiltration areas, shaded open water areas with moving water, etc., as well as sufficient summer regeneration and comfort zones/places with shade and water in public places for direct cooling (fountains, mist nozzles, etc.) and hydration (drinking fountains).

8. **Optimal development and protection of cold air spaces, agricultural areas, green belts and forest areas** in the urban and surrounding areas (e.g., through provision of cold air supply areas and corridors, shaded blue areas with moving water).

9. Integrated recording, monitoring, management, assessment and planning of green and blue areas and other factors (e.g., shading, low absorption roofs) to enhance city cooling. This can be done using a GIS and **Urban Climate Quality Mapping (UCQM)**. UHI adaptation should also be integrated in **local development concepts** and be facilitated through provision of the necessary **databases** and **capacities**.

10. **Regional cooperation** between the neighboring municipalities and the district, especially in the TwinCity metropolitan area of Carinthia & Villach, in the implementation of adaptation measures related to urban heat islands, i.e., in joint action planning and spatial planning (protection of forest areas - especially against fire, development and design of industrial and commercial areas, large construction projects, regional development concepts, collection and sharing of databases).