

Life
**METRO
ADAPT**

Strategie e misure di adattamento al cambiamento
climatico nella Città Metropolitana di Milano

**Life-METRO ADAPT: enhancing climate change adaptation
strategies and measures in the Metropolitan City of Milan
Raising awareness of young people about nature based solutions**

**Second 3-day Training for the trainers for exchange of good practice, green skills
and innovative non-formal learning tools (A 1.)**

Online, Zoom, 6th Apr 2021
Simona Colombo



The LIFE Programme

The LIFE programme is the EU's funding instrument for the environment and climate action created in 1992.

Two sub-programmes:

LIFE sub-programme for Environment:

- Environment & Resource Efficiency
- Nature and Biodiversity
- Environmental Governance & Information

LIFE sub-programme for Climate-Action:

- Climate Change Mitigation
- Climate Change Adaptation
- Environmental Governance and Information

LIFE METRO ADAPT – Climate Change Adaptation



Climate Change Adaptation Measures and Strategies in Milan Metropolitan City

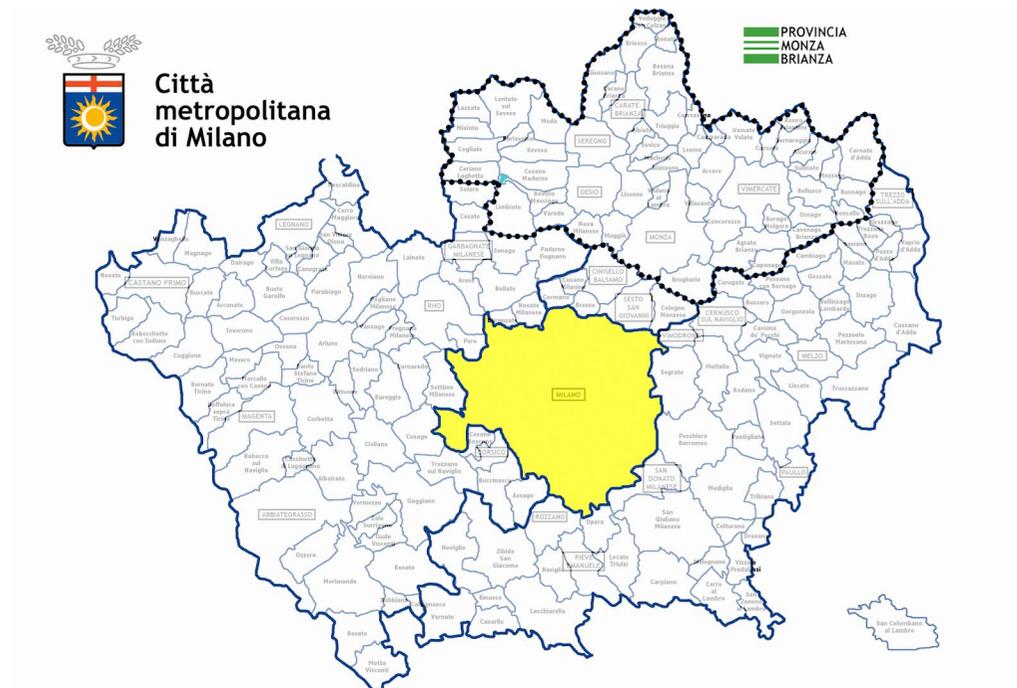
Sub-programme: Climate Action

Priority area: Climate Change Adaptation

Duration: 36 months (September 2018 – June 2021)

Leader: Metropolitan City of Milan

Territory of Interest: Milan Metropolitan Area



For further information please consult the Project website: <https://www.lifemetroadapt.eu/en/>

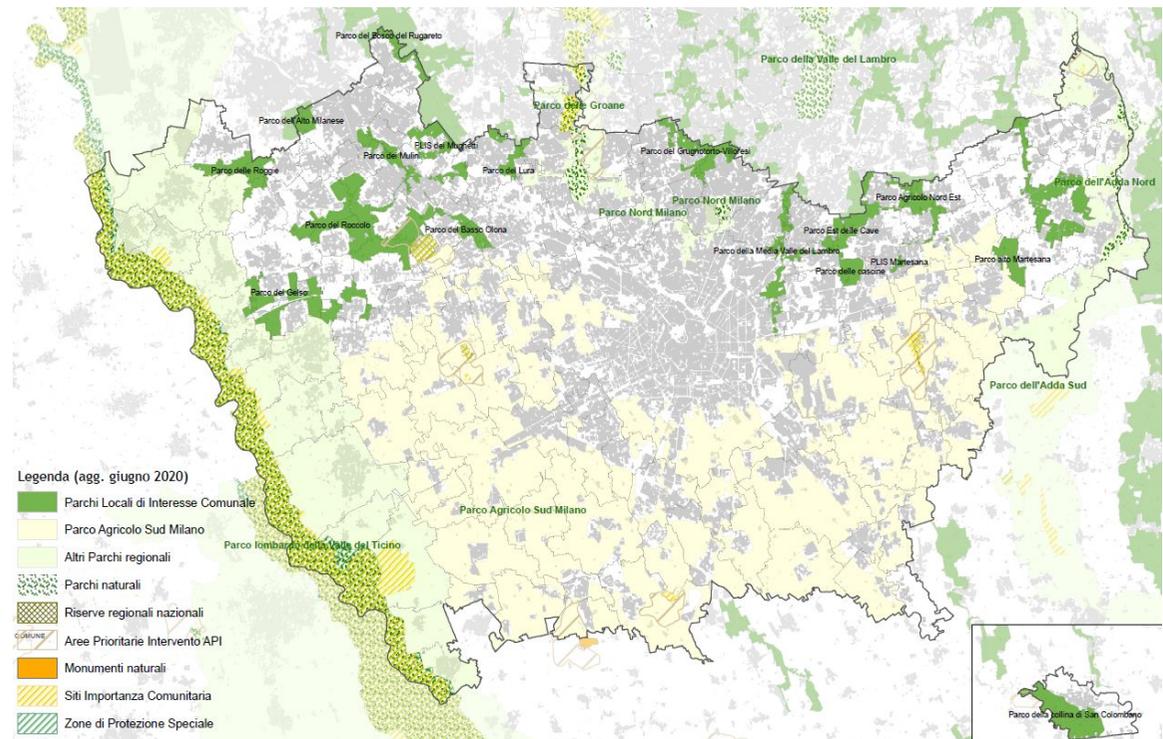
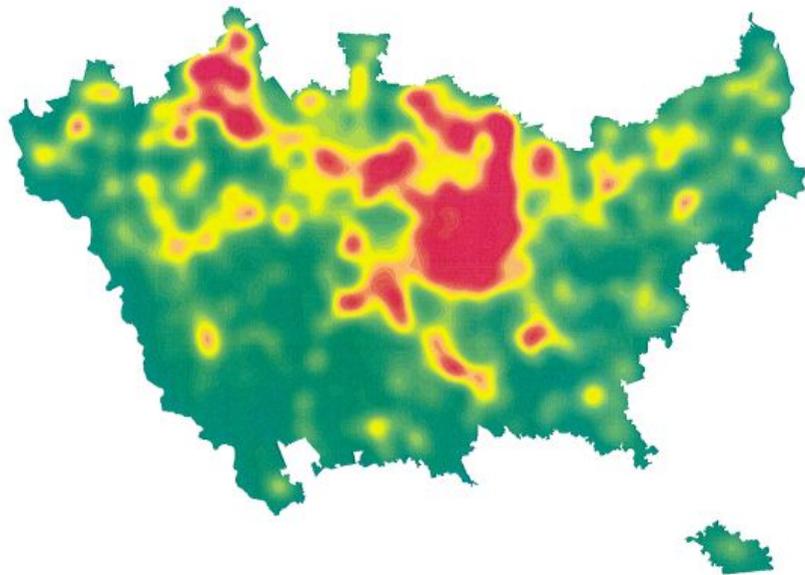
Project Partners



Territorial and institutional context



Among the most densely populated urban areas in Europe with a density of about 2,038 inhabitants/km² for a total of 3.2 million inhabitants (2016) and a demographic structure formed for 22% over 64 years old. Its territory is about 1600 Km² distributed over 134 Municipalities, including the city of Milan, and is about 41% formed by build-up areas and infrastructures, 50% formed by agricultural areas and only 8% formed by woodlands.



Issues tackled by the project



 Intensification of **prolonged heatwaves** in urban areas.

 Increase in storms, floods, droughts and severe **extreme weather conditions**.

 **Lack of coordination** between municipal and metropolitan climate change adaptation strategies.



The objective is to create **shared governance** amongst local authorities in Milan metropolitan area so to promote the changes needed to **adapt to climate change** and generate the means to implement appropriate policies and strategies for the local areas.

Project actions



Environmental governance: Integrating the EU Adaptation Strategies and measures in the Milan Metropolitan Territorial Plan (PTM).



Data Analysis: Developing innovative **meteorological satellite data** and high precision soil sealing maps supporting detailed vulnerability analysis.



Sustainable interventions: Promoting **Nature Based Solutions (NBS)** to reduce flood risk and heat-island in regeneration projects of neglected urban space using a multi-objectives approach.



Stakeholders' involvement: Enhancing **bottom-up initiatives** increasing the citizen awareness and engagement in climate change adaptation;



International Networking: Developing a **network of Italian and European metropolitan areas and cities** enhancing the mainstreaming of adaptation policies and measures and supporting the implementation of NBS.

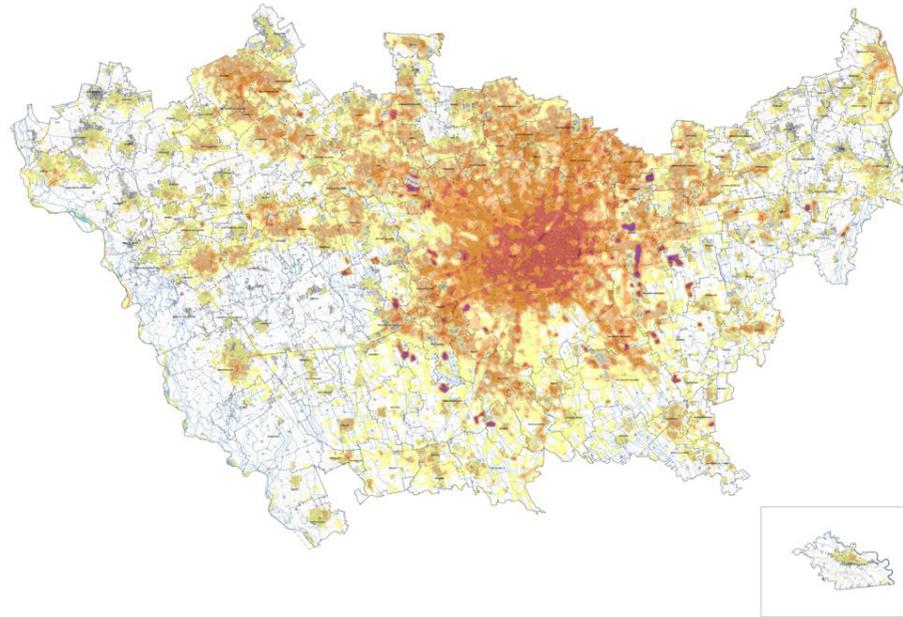
Climate Change Adaptation Measures in Territorial Planning Tools



**Città
metropolitana
di Milano**

For the first time in Italy, the territorial plan for large areas contains an innovative part dedicated specifically to the government of environmental emergencies with a specific section reserved to climate change that includes rules enhancing resilience measures in the local planning tools.

Climate Data Analysis and the Metropolitan Territorial Plan

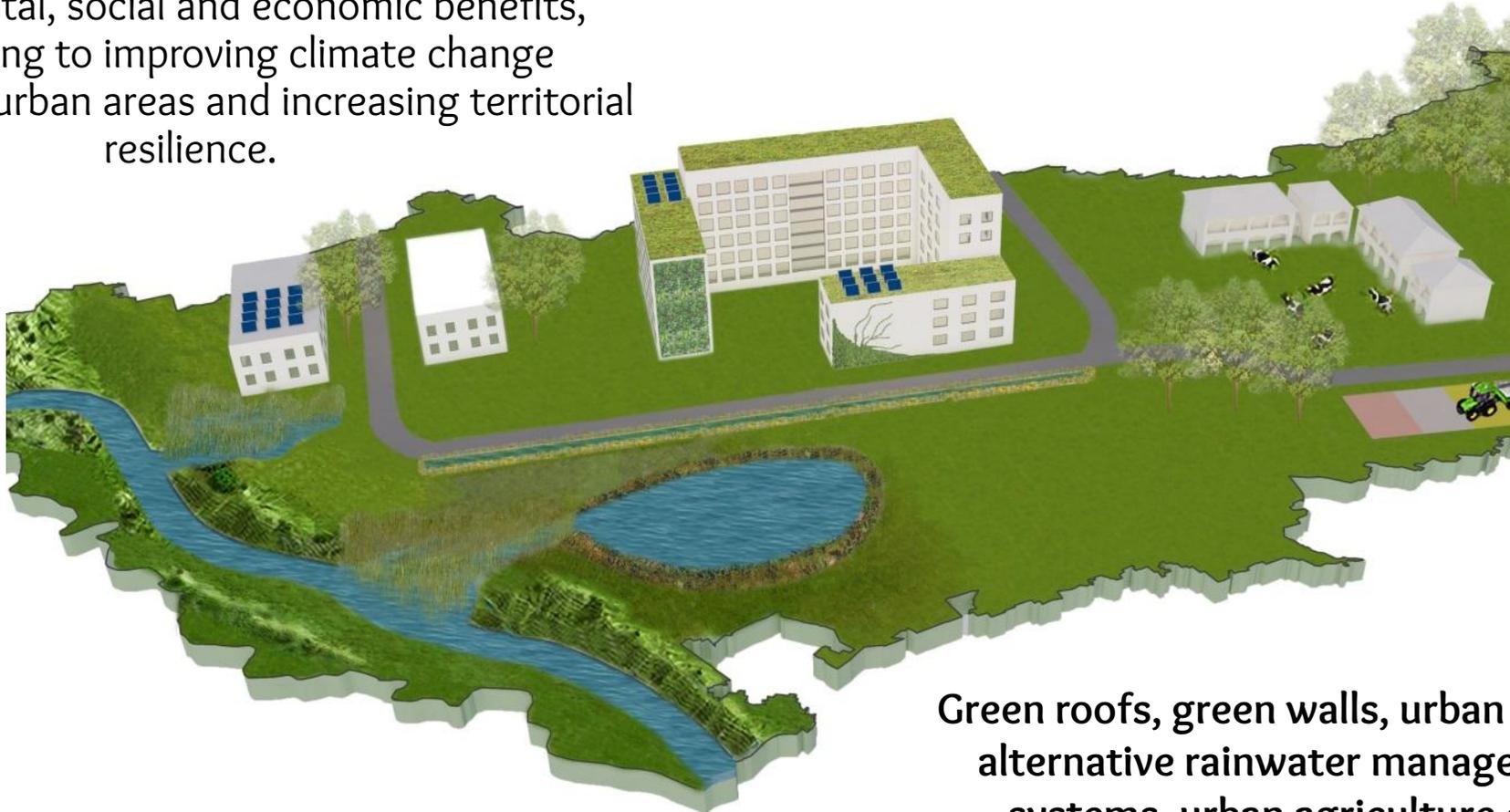


- Analysis provided by the METRO ADAPT project has been used to develop a map representing **the heat-island phenomenon** in summer nights all over the metropolitan territory.
- For the areas considered at risk the **PTM provides guidance on the actions that Municipalities have to implement to mitigate the thermal anomalies** and to integrate in municipal plans and regulations (such as Municipal Building Regulation, Green Plan, Urban Traffic Plan, Sustainable Urban Mobility Plan, etc.).

Promoting Nature-Based Solutions

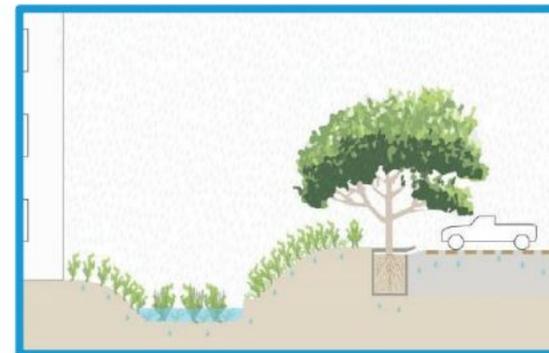
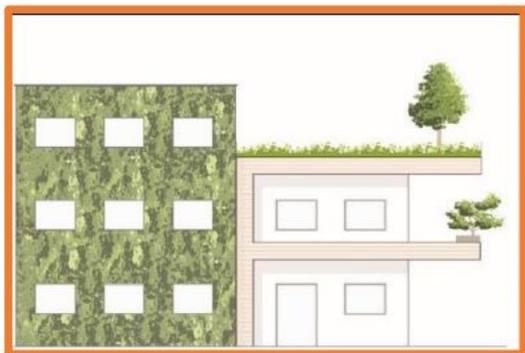


Nature-Based Solutions (NBS) are interventions inspired and supported by Nature that guarantee environmental, social and economic benefits, contributing to improving climate change adaptation in urban areas and increasing territorial resilience.



Green roofs, green walls, urban forests, alternative rainwater management systems, urban agriculture etc..

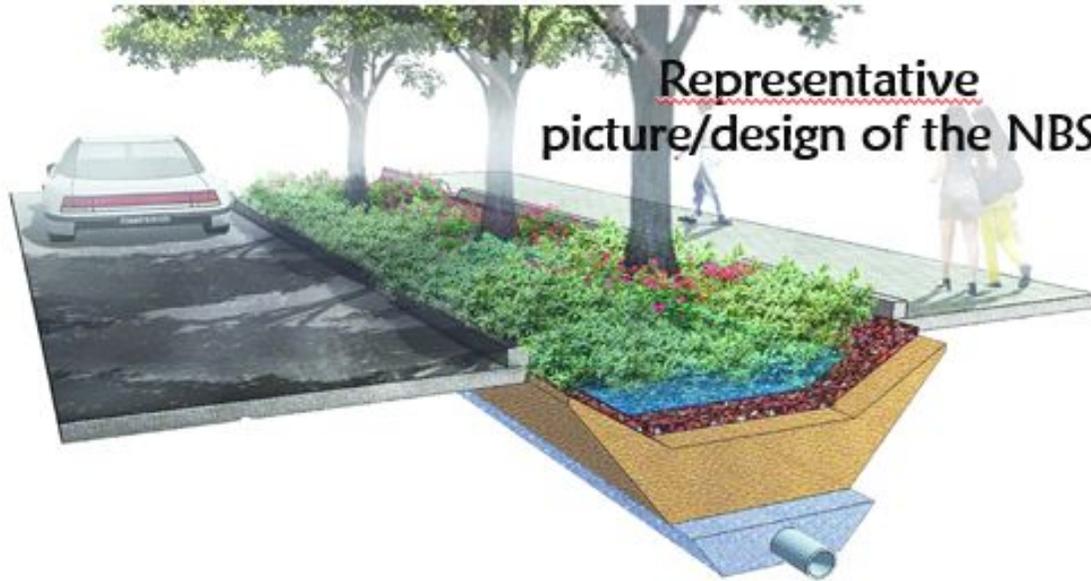
The NBS Catalogue



The NBS Catalogue



Representative
picture/design of the NBS



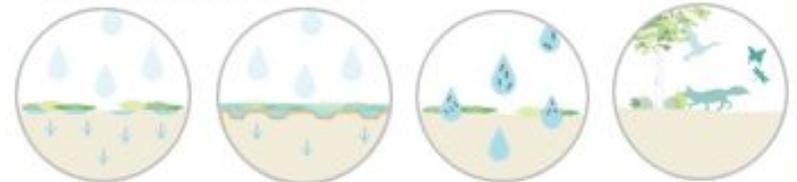
I canali vegetati sono progettati per gestire una quantità di deflusso da una vasta area impervia, come un parcheggio o una strada. Assorbono, immagazzinano e filtrano le acque superficiali, oltre a rimuovere inquinanti e sedimenti..

Definition and a short description of each NBS

Case studies/Best practices
related to NBS

NBS features

Environmental impact



Socio-economic benefits



Green on Built Environment



Green roofs



Green walls



Fonte: Ambiente Italia 2019 ©

Pergola paths



Fonte: BAM wegen ©

Green barriers



Urban green furnitures

Ground Green Spaces



Community gardens



Urban farming



Street trees



Pocket parks



Urban forestation

NBS for water management



Infiltration trenches/strips



Swales, Bioswales



Bioretention systems



Ponds and constructed wetlands



Detention basins



Permeable pavements

Green roof 'Orto fra i cortili' in Milan



'Orto fra i cortili' ('Garden between courtyards') is the project realized on the flat roof of the building that houses Piuarch, in the heart of Milan's Brera district. The roof of the building has been converted into a permanent vegetable garden and an "open air pharmacy," redeveloping the building also from an energy and functional perspective.

The design is based on a modular system that uses pallets to build easily assembled structures that combine aesthetics and functionality at a reasonable cost. Orto fra i cortili aims at being a system that is repeatable on a large scale for redeveloping areas that are not being used. It is a building energy improvement project, a landscape instrument, decorative, food self-production, a new space for entertainment, socializing and coworking.

Community Gardens in Milan



All citizens around a non-profit association can request the assignment of an area owned by the municipality for the construction of a community garden by submitting a request to respective municipal office where the area is located.

The agreement has a minimum duration of 1 year and a maximum of 3 years.

The respective municipal office can withdraw the agreement:

- in three months' notice,
- in case if the assigned area is necessary for works of public interest
- immediately, if the non-profit association does not respect the commitments made in the agreement.



Environmental impact



Rainfall infiltration



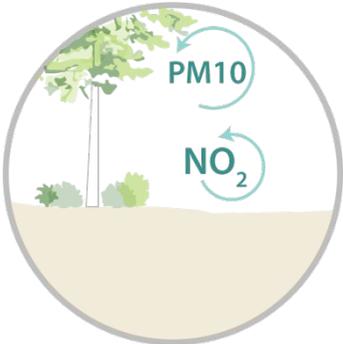
Water purification



Runoff detention



Retention and storage



Air quality improvement



Microclimate regulation



Biodiversity restoration

Socio-economic benefits



Health and well-being



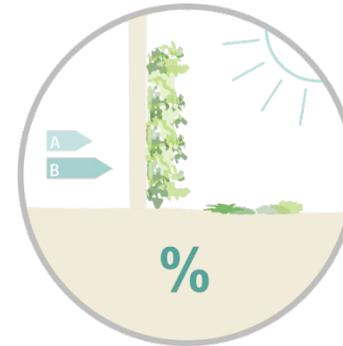
Social space



Aesthetic



Local economic growth



Energy saving

METRO ADAPT – Raising awareness and training



The Metro Theatre Project: «Pale Blue Dot»

Thanks to the Theatre Company Arditodesio this amazing play is contributing to spread LIFE Metro Adapt message about the importance to ACT at all levels to adapt to climate change, mitigating its impact. The project foresees to involve schools and students, with specific performances for young people

Watch the trailer!

International and national networking



Webinars and workshops within international events

18th EUROPEAN WEEK of REGIONS and CITIES

05>09 OCTOBER 2020 12>16 OCTOBER 2020 19>22 OCTOBER 2020



Conferences and debates with local experts



Crisi climatica ed eventi estremi: gestire l'inevitabile evitare l'ingestibile

Webinar

Presenta la serata:
Damiano Di Simine
Legambiente Lombardia

Martedì
17 novembre 2020
ore 17.30

Relatore della serata



Luca Lombroso
meteorologo e
divulgatore ambientale

Dove:

Ci collegheremo 5 minuti
prima tramite la
piattaforma ZOOM

L'incontro è gratuito.

Per informazioni:

Per partecipare è necessario iscriversi al seguente [LINK](#)

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www.lifemetroadapt.eu





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