





ACTION WORKSHOP on "Neutral neighbourhoods, habitable and desirable"

Results with Granollers' core group stakeholders

23rd October 2024





Contents

1.	Summary	. 3
2.	Vision and Adaptive Pathways for the future neighbourhood	.6
3.	RESCCUE tool, Resilience to cope with climate change in urban areas. Aquatec	. 8
4.	City Scan, parametric design tool. TSPA	LO
5. Comm	Presentation of the "UP2030 Agreement on the transformative design for cities", Partnersh nitments. Memorandum of Understanding (MoU) Structure	•
6.	Photos of the Action workshop	15





1. Summary

Granollers, first Action Workshop meeting was celebrated on Wednesday 23rd of October of 2024. The purpose of the workshop was to update on the progress of the project and to present the main results of Vision and Adaptive Pathways for the future neighbourhoods. Also has explained the strategy on resilience, based on RESCCUE tool results and strategy on spatial model definition, based on City Scan tool¹ results.

Once presented different results obtained there was a validation of the tools implementation results and strategies derived. Following to this it was presented UP2030 Partnership commitment for the transformative design of cities. The session ended with a presentation of next steps for cocreation process and finally a facilitated activity was conducted to address proposals for the future developments.

Next, a summary of the agenda on 23rd of October session:

- Welcome and update on the progress of the project.
- Vision and Adaptive Pathways for the future neighbourhood.
- Presentation of strategy on resilience, based on RESCCUE tool results.
- Presentation of strategy on spatial model definition, based on City Scan tool results.
- Validation of the tools implementation results and strategies derived.
- UP2030 commitment for the transformative design of cities.
- Next steps in the UP2030 project co-creation process.
- Facilitated activity with the participants for a new urban development.

The participants of this session of Action workshop were a core group with internal stakeholders from city council, in charge of technical and political issues on urban planning, green infrastructure, energy transition and water cycle, mobility, public health and social services. The majority of them had participated in the previous workshops done, on the Needs & Challenges and, Vision and Adaptive pathways workshops. In total, the Action workshop was attended by 18 people:

¹ It should be clarified that initially the tool now called City Scan was named Parametric Design Tool, and TSPA is its technological developer.







Figure 1: Picture of participants on 3rd WS Action. Source: Granollers city council





Following it is attached the list of participants in the session:



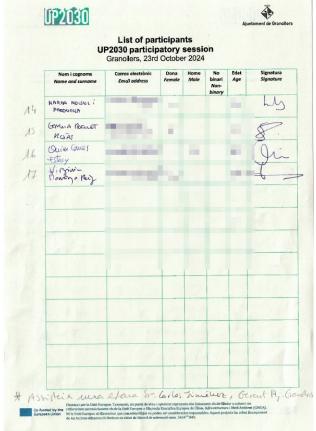


Figure 2: Assistance in the Action workshop. Source: Granollers city council





2. Vision and Adaptive Pathways for the future neighbourhood

The main results of the **VISION** workshop and the **Adaptive Pathways** session were shared through on the Vision and Adaptive Pathways pages. These pages help refine the Vision statements for each pillar of the pilot (climate neutrality, resilience, and social inclusion). This work leads to the definition of 9 main objectives, along with the associated strategies (clusters) and best practices to be implemented in areas like spatial planning, energy, sustainable mobility, city governance, and participation. Next, find attached 2 figures and links that summarize the Vision and Adaptive pathways pages regarding Granollers pilot:

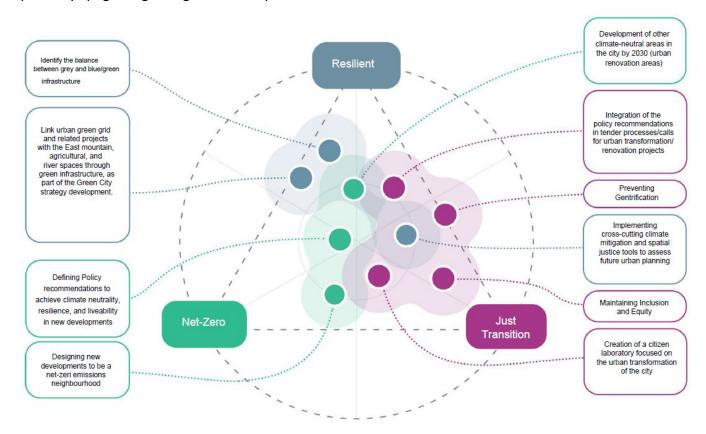


Figure 3: Vision page for Granollers. Source: "Vision page", TSPA (2024) https://www.granollers.cat/ajuntament/up2030





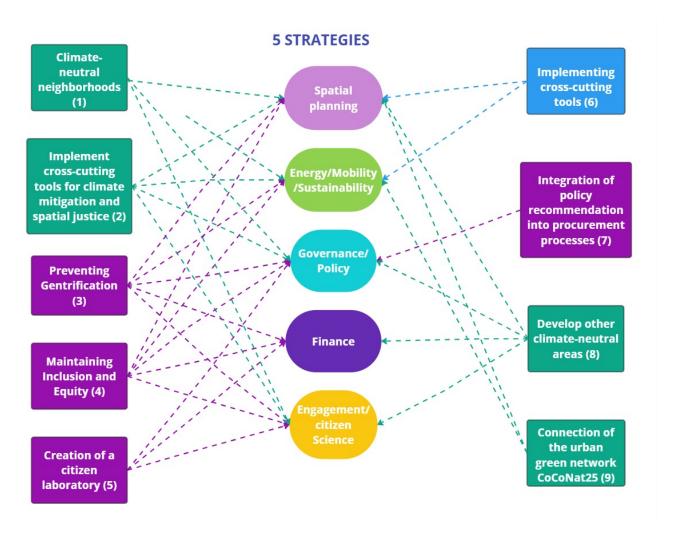


Figure 4: Adaptive pathway page for Granollers. Source: TSPA (2024) and Granollers city council, 2024





3. RESCCUE tool, Resilience to cope with climate change in urban areas. Aquatec

After Vision WS results, Aquatec presented **RESCCUE** tool and its contribution to the pilot Vision and Action phase. Results of the Vision and Adaptive Pathways workshop highlighted the necessity to develop a neighbourhood resilient against floods, integration of nature-based solutions, connection with existing green spaces and the contribution to the objectives of climate neutrality and social justice.

And for the Action phase RESCCUE proposes a selection and prioritization of adaptation measures and strategies based on cost-effectiveness, associated co-benefits and other criteria.

Simulations were done to quantify the efficiency indicators (Runoff volume and Peak flow) per scenario. The scenarios modelled were target base scenario, business as usual scenario and resilience scenarios.

Main conclusions from the results of modelling scenarios were to achieve the current natural conditions of a future neighbourhood to be developed and, considering the urbanization planned by the Granollers Urban Master Plan (POUM, 2012), it will be necessary to implement all the proposed sustainable urban drainage system (SUDS).

Analysing the efficiency of each measures the results are the following:

Final multi-criteria ranking results DOWNLOAD DATA Order by: Criterion Scenario SCENARIO RUNOFF VOLUME REDUCTION **OPEAK REDUCTION** COSTS (ESTIMATED) La Bobila_green roofs 8,573,520 € 240 L/s 4 747 m3 2,060 L/s La Bobila_infiltration trenches 1,256,774 € 2.535 m3 6,976,462 € 2,438 m3 La Bobila_pervious pavement 1,440 L/s La Bòbila_infiltration basins 105,750 € 190 L/s La Bòbila_stormwater retention tank 3,425,000 € 2,740 L/s m3

Figure 5: Results of multi-criteria analysis with RESCCUE tool. Source: Aquatec (2024)





Regarding the implementation of the proposed SUDS, next there is the efficiency analysis of each measure:

- **Infiltration basins** are a cost-efficient measure because they have a lower implementation cost than other measures and many associated co-benefits, but they cannot be implemented on all urban surfaces and therefore can never be proposed as the only resilience solution against floods.
- Infiltration trenches (in 1st place) and permeable pavements (2nd place) would be most efficient solutions according to the multi-criteria analysis. They are also the ones that reduce the most runoff volume in the urban grid.
- Green roofs are the most expensive alternative to implement but the significant co-benefits they bring must be valued.
- **Retention tanks** are efficient in reducing peak flow but not in reducing runoff volume. They also do not provide co-benefits (environmental or social).

Finally RESCCUE contribution to new sector regarding UP2030 Action phase are:

- Identification of co-benefits and trade-offs associated to resilience measures
- Access to a database of proven solutions and best practices for the climate resilience of urban areas
- Methodology and support to perform cost-benefit analysis of resilience alternatives
- Results will be integrated in the planning guidelines of the future neighbourhood
- Results will be scalable to future developments and rehabilitations in the city of Granollers





4. City Scan, parametric design tool. TSPA

The other tool implemented in Granollers as a pilot city was the City Scan tool, developed by TSPA. City Scan has analysed **four design scenario** that facilitate the exploration of multiple urban design scenarios. Additionally, City Scan has provided trends guidelines that evaluate the impacts of different design options, supporting the development of precise and actionable guidelines that can be considered in the frame of a future tendering process for the writing of the urban development plan of the sector. For scenario visualization and communication, the tool supports the visualization of potential design outcomes.

It is important to highlight that City Scan helps to confronting complex challenges, such as resilience, climate neutrality and inclusion, data informed decisions and collaborative process are key to build sustainable, liveable environments.

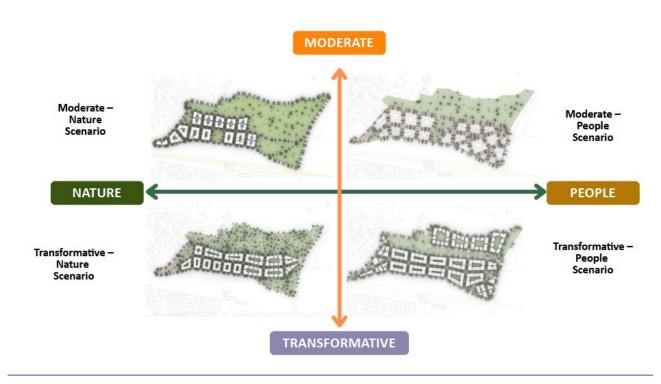


Figure 6: Results of modelling scenarios analysis with City Scan tool. Source: TSPA(2025)





Finally, in order to recap feedback from the attendants Mentimeter was used, find below the results obtained from the dynamics proposed by TSPA:

Mentimeter results

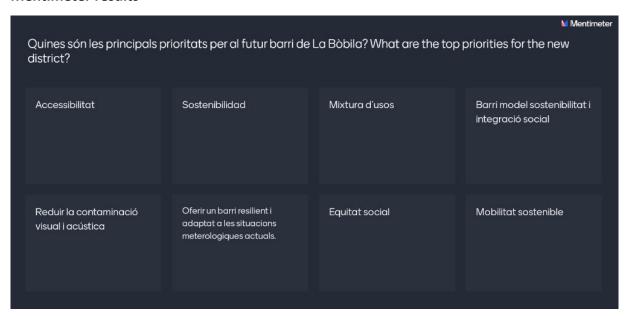


Figure 7: Mentimeter results. Source: TSPA and Granollers city council



Figure 8: Mentimeter results. Source: TSPA and Granollers city council







Figure 9: Mentimeter results. Source: TSPA and Granollers city council





5. Presentation of the "UP2030 Agreement on the transformative design for cities", Partnership Commitments. Memorandum of Understanding (MoU) Structure

During the workshop, the document that outlines the Commitment to Transformative City Design was introduced. The UP2030 project, part of the Horizon Europe program, is included in the European Mission for smart and climate-neutral cities by 2030. The European Commission conceives missions as a coordinated effort to pool the necessary resources to address the major challenges of cities. Granollers is not part of the 100 European NetZero cities, but its participation in the UP2030 project demonstrates the city's commitment to combating climate change.

The 100 cities in the NetZero network have developed City Climate Agreements. These documents outline measures to decarbonize key sectors in the functioning of the city. The fight for decarbonization is strongly linked to the SDGs.

Granollers is a signatory to the Covenant of Mayors for Europe. To strengthen action for a fairer and climate-neutral Europe, it has a Strategic Plan Granollers 2030 and Urban Agenda 2030. This planning links action for the decarbonization of all municipal sectors with the localization of the SDGs through 16 transformative city projects, most of which are aligned with the axes of the UP2030 pilot project in Granollers.

Accordingly, the UP2030 project has proposed that pilot cities develop alignment documents for the project's objectives and the pilot with each city's 2030 goals.

In the case of Granollers, the UP2030 Commitment to Transformative City Design serves as a foundational document for the vision and shared objectives for the development of future neighbourhoods, which has taken into account contributions from institutions, companies, entities, and citizens throughout the co-creation process (March 2023 to September 2024). It is a memorandum of understanding between the city of Granollers and the parties involved in the UP2030 project, which also integrates a shared vision for the transformative design of the city.

This document is also aligned with the Programa d'Actuació Municipal 2023-2027.

The document's structure is as follows: Purpose of the UP2030 Commitment in Granollers **Commitments:**

- Shared vision and contributions
- Commitment to climate neutrality and decarbonization
- Stakeholder participation
- Integration with the "City Climate Contract" process
- Involvement of new cities
- Long-term sustainability
- Promotion of the defined vision and objectives







- Monitoring and evaluation
- Continuous improvement
- Improvement of communication and cooperation
- Data confidentiality and security

Monitoring and evaluation

Duration Review and modification

Data processing

The document concludes with an annex that outlines the creation process of the UP2030 Commitment to Transformative City Design as scope of the commitment, identification of stakeholders and environment, agreement on the shared vision and governance structure, results obtained in the co-creation process in Granollers, city involvement, and finally, commitments and responsibilities as well as the engagement strategy.

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6. Photos of the Action workshop

Following some pictures from the 3rd workshop of Action.











Figure 11: Pictures from the session. Source: Granollers City Council