LC Districts

Interreg Europe

European Union
European Regional
Development Fund

[LC DISTRICTS POLICY ROADMAP]

The transformation of cities to make them ecofriendly is a challenge for all administrations.

With this document it is intended to offer a series of recommendations to obtain better results during this transition.

Like plants in nature, where the flowering process can occur by chance, and without the help of care, private initiative can bring improvements without the intervention of the administration. However, if more ambitious and faster results are expected, the public sector has tools that favor it.

If a tree blossoming is looked for, an appropriate place with fertile soil (with minerals) is required, where a seed is going to be planted.

Likewise, this plant will need light and water. In the same way, it will need other cares, such as fertilizers, as well as protecting it from external dangers. It will require a protection from the wind when its stem is still immature, put a guide on it so that its trunk grows straight and strong. In addition, it will be protected from other external agents which may endanger its growth and when it is a mature plant. Finally, other cares such as pruning will be required.

The more seeds planted, the more plants obtained. As well as the variety of species will result in a more balanced and beautiful place, taking into account their peculiarities in order to adapt their cares.

Following the simile of caring for plants, some recommendations to the administrations will be proposed in this document, so that they achieve a sustainable built environment.

As well as the selection of the varieties will differ depending on the place, the taste, the resources, etc., the policies that are prioritized in each region. Since the resources, the climatology, the political situation, the starting point or design of urban environments, also vary from one region to another. The prioritization and commitment of a region for the use of resources such as wood, for the use of district heating or the intensification of renewable energies, is neither better nor worse than others. Simply, the efforts will be more intense in some areas than others. However, from LC Districts partners will encourage all of them to be taken into account since, as already mentioned, the more routes we cover, the more chances of success there will exist. Always taking into account the limitation of resources such as mainly the budget.

Preparing the soil

- society and administrations awareness and participation

Chemical fertilizers

- Public sector leading by example, procurement as an engine for transition

Choosing and sowing the seed

- Strategies, planning, policies, coordination

Tree protectors

- Law changes, adaptation

Watering

- Training and skills building among technical services and administration

Tree stakes

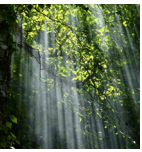
- O-S-S, certifications and standarization, monitoring

Organic fertilizers

- Financing

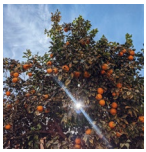
Pruning

- Use of tools for selection of best value projects, targeted support



Light

- Renewal Energy Sources, sustainable chain, use of natural abundant resources



The fruit

- Results

1

Preparing the soil

For our tree to have a future, the land must be prepared; tilling the soil helps to mix harvest residue, organic material, and nutrients evenly into the soil. The loose soil will allow the seed access the required nutrients.

Administrations should concentrate efforts ***on raising awareness*** among their citizens through education and informative campaigns emphasizing the benefits in the short and long-term of decarbonisation projects and renewable energy sources (RES), which can speed up decarbonisation of the building sector. Also by improving the information offered on the financing possibilities.

The strategies of the administration towards sustainability will easily accommodate in an aware society, and different administrations will be better coordinated and aligned.

2

Choosing and sowing the seed

It is important to choose a seed of a plant suitable for the climate or place where we sow it.

Depending on the particularities of the region, as well as their point of depart, the strategies to be applied will be chosen. Nevertheless, there are common recommendations regarding the governance model, no matter which region.

- There must be ***close cooperation between administrations*** (between municipalities and municipalities and regions) as the unit of stakeholders strengthen the impact of the policies seeking environmental, energetic and socio-economical sustainability. That cooperation should be long-term and regardless the political orientation.
- ***A regional coordination body*** can streamline the common goals of low carbon transition, acting as reference and compiling all information in order to harmonize plans and efforts.
- ***Clear vision and commitment*** is needed on national, regional and local level, reflected in all strategic documents as a crosscut issue and link the targets to concrete actions planned.
- The plans need to be designed in a comprehensive way, including the financing plan (a scheme of all the financial instruments available) and considering not only strictly energy issues, but ***going further in sustainability***, indoor health and earthquake safety parameters.

3

Watering

Our tree needs water to grow, right from the very beginning and during all its life.

The process of transforming our cities is taking place in all Europe at the same time, partly because of the EU recovery funds. This will lead to a new boost for renovations, and demand for the construction sector will significantly increase. This fact implies that there may be bottlenecks due to a lack of qualified and unqualified staff, and will also result in lack of technical means.

In order to make those policies and the transformation of our settlements come true, it is necessary to ***invest*** in facilitating ***continuous training*** for technicians with the aim of retraining and building and upgrading skills/capacities in ***both, public*** (staff members of Public Administrations who work on issues related to energy efficiency and sustainability) ***and private entities***.

The training should focus in the following topics:

- Insulation construction techniques
- Up to date technologies related to Building information Modeling (BIM)
- Renewable energy sources (RES)
- District heating (DH)
- Certification tools
- Energy management

4

Organic fertilizers

The organic fertilizer will guarantee that the soil has the nutrient elements to make our plant germinate.

The implementations needed to improve the energetic performance of our households and the ones for an efficient DH system, even if they imply high benefits in the long term, they require a big investment effort, which can menace the viability of the project.

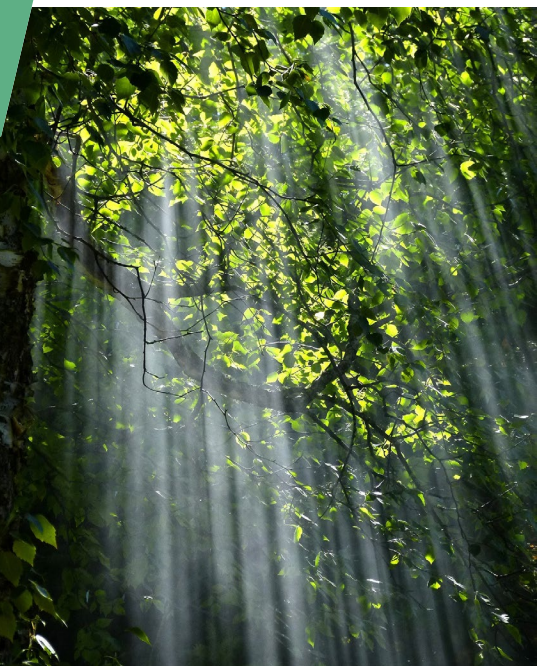
Therefore, financing of the projects is essential. At this regard, administrations should focus their efforts on:

- Launching ***innovative financing models*** while combining with conventional ways of financing such as European funds and Operational Programmes: self-financing through energy savings, debt financing, crowdfunding campaigns, green municipal bonds, on bill financing, revolving loan funds... as well as including other eligible items such as Energy Performance Certificates or citizen energy cooperatives.
- Compiling all financial instruments available in a ***single functional portfolio***
- Providing technical assistance for a ***comprehensive socio-economic planning*** of the projects
- Conceiving the financing of interventions in a ***logic of system*** and no longer of a single intervention
- Linking ***taxation*** to energy efficiency, in a positive sense.

5

Light

As soon as our seed comes out, it will require the sunlight to properly develop.



Projects cannot be considered successful if they do not reach the pursued goal of decreasing the CO_2 emissions. The urgency might lead administrations to support projects that improve the results in one certain place but worsen the emissions in other places.

Projects need to be planned taking into account the analysis of the whole life cycle. For that purpose, technicians will have to consider:

- The use of ***sustainable materials*** such as wood and local materials
- Raw materials and their cascading effect from a ***circular perspective***
- ***Water reuse***
- Inclusion of ***renewable energies on-site***. Combine different sources.

And Administrations should set the path for it by:

- contemplating in ***spatial planning*** the usage of district heating/cooling systems as heating/cooling source.
- increasing the support of RES usage, also for heat/cold production, and their inclusion on site.
- supporting initiatives that make it possible to integrate more communities/ buildings into district heating systems.
- taking the most of naturally present resources in the area.

Those would be the ***basic ingredients*** *for our carbon-free built environment.*

However, there are some ***other cares*** *that we can take to help our tree grow strong.*

6

Chemical fertilizers

Sometimes plants need extra help to grow strong, such as chemical fertilizers

There are some actions that administrations can do to boost the demand of energy improvement implementations:

- To use ***public tenders*** as a driving force for change by including environmental, social and economic criteria
- ***Public sector leading by example*** (inspired in turn, by functional examples from other regions): become a model to follow by achieving nZEB in the premises that citizen's access and use.
- To encourage the ***use of district heating*** through either examples of renovation of existing heat networks to correct deficiencies in the pipeline network due to deterioration and leakage, replacing plants with newer and more efficient ones, choosing to expand and create new district heating networks with state-of-the-art technology.
- Commitment to provide ***public social housing*** with the ***highest standards of energy efficiency***.
- To conceive the financing of interventions in a ***logic of system*** and no longer of a single intervention.

7

Tree protectors

They can be essential for ensuring the survival of young trees, as well as those vulnerable to external environmental factors such as weather, animals, pedestrians, vehicles or equipment.

Laws and bylaws in the domains of district heating and buildings energy performance need to be ***aligned*** in a way that district heating system can be a solution for heating, enabling reaching nZEB standards for buildings performance in new and refurbished buildings.

8

Tree stakes

In order to help the tree grow straight, tree stakes or canes can be used.

The energy performance implementations require complex and technical decisions and most of the time, specialized help and guidance is needed. Therefore, public administrations should:

- To promote ***multidisciplinary support teams*** for the management of energy rehabilitation. These teams can be part of ***regional energy agency*** or ***one-stop-shops***. They will define the benefits of the project beforehand, and will propose a comprehensive renovation with an emphasis on energy efficiency and use of renewable energy sources, establishing trusty relationships from citizens and securing their project "buy in".
- To use ***certifications*** as guarantee of the high quality of the proposed intervention using the right monitoring indicator to concretely measure the energy-environmental benefits of the proposed action. Also require additional energy and environmental efficiency in new buildings and renovations.
- To ***monitor*** environmental effects

9

Pruning

As the tree becomes "senior", the pruning will help it grow stronger. Selecting the healthiest branches and getting rid of those that are not contributing.

Administrations should concentrate their efforts in those projects with better forecasted results:

- Certain ***tools available*** can be used that allow a better understanding of the starting situation and help identify needs for improvement, and enable them for more efficient planning
- In complex projects, administrations should ***target*** their ***support*** mainly in the pre-project planning stage, where independent and skilled institutionalized body is crucial

Results

Logically, the fruit is the result of an exhausted effort of the plant.

The advantages of this transition, or, continuing with our simile, the fruits of our tree, will be:

For the administration and society

- Reduction of CO_2 emissions with positive impact on the climate
- Improvement of the welfare of citizens
- Savings in the health system
- Reduction of energy poverty
- Reduction of energy outsourcing (energy self-sufficiency): long-term stabilization of energy prices and ensuring the reliability of supply.
- Opportunity for urban regeneration and improvement of the image of the city
- Employment increase and support of local employment
- Tax return
- Green goals

For users

- Improvement in comfort
- Improvement of the healthcare
- Lower energy bill
- An increase in the property's value