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Local cooperations for district collective energy home retrofit



10 commandments
to scale them up

Lessons learned
from EU pioneers

2024
2025



Making Deep Energy Retrofits a Collective Sport

Community Spirit Applied to Home Retrofit Scale-Up: A Promising Leverage to Activate

In many parts of the European Union, districts were constructed during similar periods, following the same architectural principles and construction methods. At the time, this standardisation helped builders to be more efficient: purchasing materials in large volumes, optimising logistics, making better use of the workforce, and learning lessons from similar housing types. Now, as we need to rebuild our homes across the continent, applying the same mindset appears to be a promising approach to deliver such extensive retrofits efficiently.

Despite the varying evolutions of these homes over time and the fragmented ownership structures, this approach

remains promising. The challenges are numerous: legal, technical, financial, and predominantly sociological, yet some pioneers have already embarked on this journey. During difficult times, community support and local solidarity have always been powerful tools for resilience. Fortified villages were built around churches in the Middle Ages, and community food gardens emerged in urban districts during the first industrial revolution. Now is the time to apply this community spirit to home retrofits.

Public Authorities and Communities Ready at Different Levels

The recently adopted EU directive on the energy performance of buildings underscores this need¹. It specifically mentions the role of One-Stop Shops working on “Integrated District Renovation Programmes” as a leverage to tackle this housing retrofit challenge. Grouped local actions are recognised as a key approach to support the proper implementation of this directive. Additionally, the DG Ener has launched a Citizen-Led Renovation² initiative to support such efforts and foster a community of practitioners and knowledge sharing.

The desire to look and feel better than neighbours and one’s sister or brother-in-law has often driven property improvement decisions—be it the pride of having a

better swimming pool, barbecue, or sports vehicle. Let’s channel this competitive spirit towards a more worthy cause. The Rocky Mountain Institute has documented the phenomenon of “solar contagion dynamics” in American suburbs. Now is the time to promote local “retrofit contagion dynamics”.

Energy Poverty Zero, an EU LIFE-funded cooperative initiative, aims to build on this knowledge and further this approach, starting by activating new initiatives in vulnerable districts where the need is greatest. Humility dictates that we do not proceed randomly but start by learning from existing pioneers. This is the focus of this paper.

¹ European Commission (2024) Energy Performance of Buildings Directive [Online] Available [here](#)

² [Citizen Led Renovation Web Page](#)

Our Discovery

Like cooking, these projects need good recipes, creativity, and dedication to succeed and be appreciated.

01 Great pioneers have launched such projects across the EU. Despite an unprepared context, they work, and they are so inspiring.

02 There is no one-size-fits-all way to organise local collective deep energy retrofits of homes, and that is fine. However, a few key profiles do emerge.

03 From these leading initiatives, we can summarise 10 commandments to properly scale up these collective movements with impact. Stick them in your offices and remember them.

10 European Local Collective Energy Transition Initiatives to Inspire Us

There is no single model. Some services are deployed at the national level (Som Energia, ZPS, Centrales Villageoises), some at the regional level (Ecovision, Energent / Klimaatpunt), and others at the municipal level (Facirenov, La Roue, REV). Some operate as stand-alone local organisations (La Roue, REV), while others function as independent local organisations aligned with a “national back office” in a non-profit “franchise” model (Centrales Villageoises, People Powered Retrofit, Ecovision).

Some initiatives focus on urban areas (Bürger Energie Berlin, Bordeaux Métropole Energie, People Powered Retrofit), suburban areas (REV, La Roue, Bordeaux Métropole Energie, Ecovision), and rural areas (Centrales Villageoises, Ecovision). Others are active across various types of territories (ZPS, Som Energia, Energent / Klimaatpunt), with a primary focus on individual housing.

State of the market: in different places, pioneers launched real projects, with retrofits delivered

Some collective retrofit projects are led by groups of citizens, some by private entities, and others by local authorities. With different angles, scopes, and approaches, they have all tried to make collective energy improvement of homes through buy-in schemes work. The pioneers leading these efforts come from diverse backgrounds.

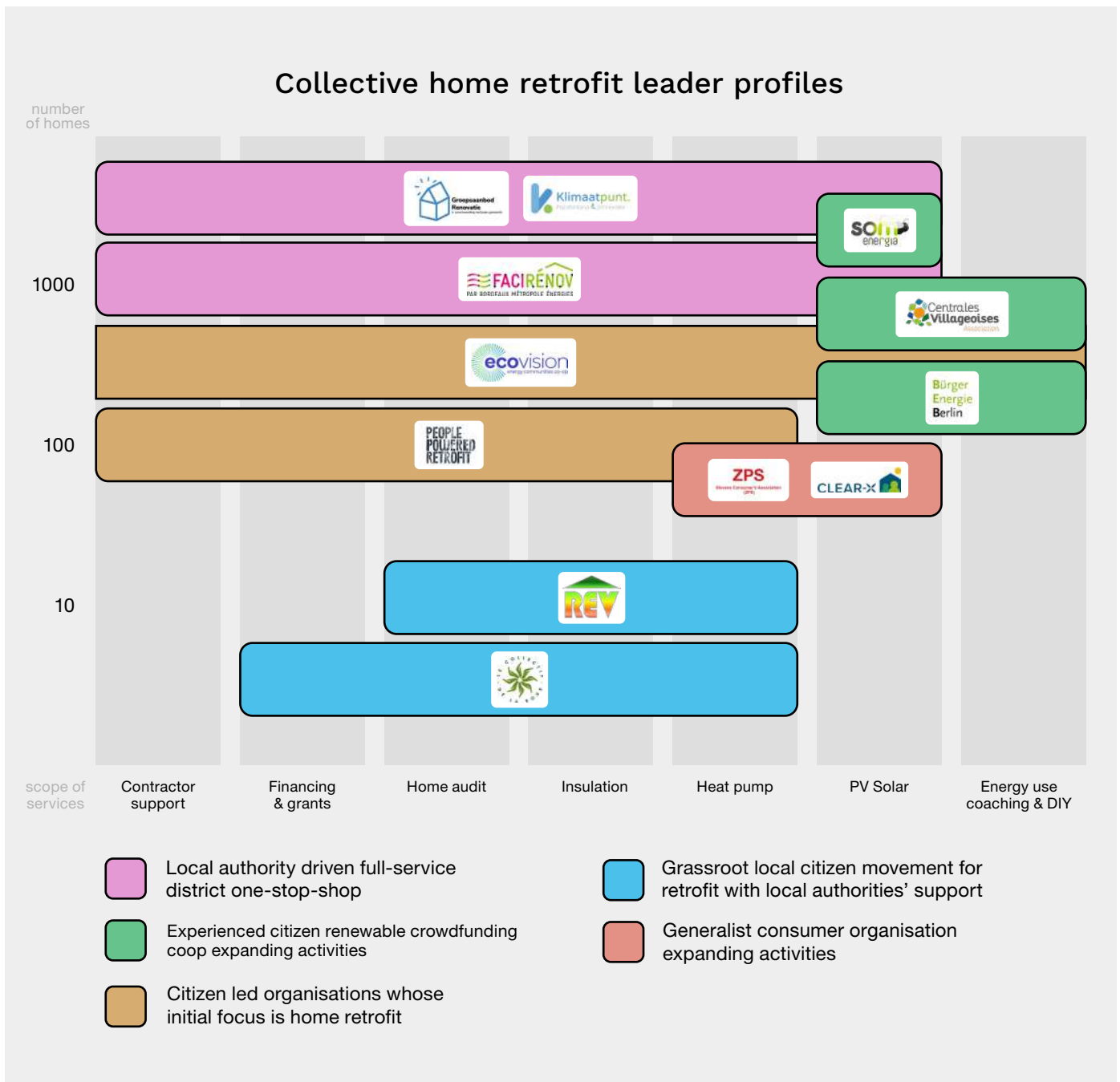


Different Key Profiles of Organisations Leading Collective Buy-In Schemes

While specific real estate, climate, and legal factors influence how these organisations are structured and the scope of their services, distinct profiles emerge among the pioneers leading collective buy-in schemes.

completed dozens of retrofits, others hundreds, and the most experienced organisations have achieved just over a thousand retrofits. It is important to note that we are in the early stages of this movement, with the EU facing the challenge of retrofitting over 100 million homes. Progress begins with small steps.

These initiatives can also be assessed by their impact and history. Compared to many established charities, cooperatives, or public services focused on improving citizens' lives, these schemes are relatively new. Some have



One key profile for delivering local collective buy-in schemes is the **Local Authority Driven Full-Service District One-Stop-Shop**. These schemes are either funded by local authorities or receive substantial support and financing from them. They offer a broad range of services and have a significant impact. They exist due to pioneering local politicians who are willing to launch and finance innovative public service activities, which are often considered unusual. For a large-scale rollout, improved 1000 common back-office structures between these organisations at the national or EU level, along with national regulations and incentives to expand such services across all territories, would be necessary. These models are typically found in countries with a high level of public service intervention in the housing sector.

Other key profile can be identified in the landscape, including :

Citizen Cooperatives Specialising in Local Renewable Energy Investments, these cooperatives initially focus on local renewable energy projects through collective crowdfunding. After engaging their members in these mid-sized projects, they encourage their cooperators/investors to improve their own homes. Solar PV schemes are a natural next step, followed by 10 “energy use coaching,” which offers standard and straightforward solutions. They also explore collective buy-in schemes for energy audits or heat pumps/wood boilers. These organisations excel in community management, with successful models featuring a strong local governance combined with a national brand, tools, and back-office support. This setup makes it easier for new citizen groups to join and establish local branches.

Grassroots Local Citizen-Led Movements

These movements, not connected to any national network, often emerge in areas with high citizen engagement in other topics. Examples include initiatives from a “Garden-city³” and a “Ville Nouvelle⁴”. They generally work in synergy with local authorities that value these local climate initiatives. While the scalability of such approaches may be limited, they should be supported wherever active citizens are keen to lead.

Hybrid Organisations Evolving from Grassroots Movements

Starting as local grassroots efforts in communities such as Manchester (UK) and Tipperary (IR), these organisations

evolved to scale their impact through multi-local support movements. They often resemble successful local renewable energy investment schemes. These initiatives are typically found in Anglo-Saxon countries with lower levels of taxation and public services, where charities and volunteers compensate for the lack of expertise and funding from local public authorities.

Consumer Associations Expanding Their Scope

These associations, initially focused on collective buy-in schemes for consumer goods, diversify their activities to include energy retrofits. Their success in other areas allows them to branch out into collective energy improvement schemes.

Diverse Organisational Profiles

The variety of organisational profiles highlights different ways to establish leadership for district-led collective buy-in schemes for deep energy retrofits. Local history and culture play significant roles in shaping these approaches, allowing for tailored solutions that fit specific community needs.

3 Britannica, T. Editors of Encyclopaedia (2024) "Garden city." [Online] Available [here](#)

4 Floyd, D. (2023) Planned Communities [Online] Available [here](#)

Bürger Energie Berlin Germany



Energiesprong Groningen Netherlands



Centrales villageoises France



Energiesprong Hem Vilogia France



Bürger Energie Berlin, Energy Sharing Germany



Klimaatpunt BE, the Wattmobiel Belgium



Som Energia Spain



La Roue-Rad Belgium



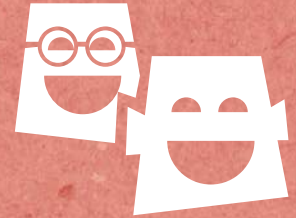
10

**comman-
-dments
for an
effective**

**local
retrofit
collective**

**buy-in-
scheme**

01



**You shall
find the
right people
rather than
the perfect
homes to
start such a
movement.**

Real grassroots experience shows that to launch and kick-start a local initiative for a collective buy-in scheme for deep energy retrofits, the key is to have people with the right mindset, rather than a perfect batch of technically similar homes. Social profiling is essential to find the right pioneers to succeed in delivering such an initiative.

In their approach, the «People Powered Retrofit» initiative in Manchester (UK) focused on recruiting homeowners with profiles of «innovators & early adopters,» representing about 15% of the population⁵. These individuals are motivated to commission work and have a strong capacity to tolerate disruption. They are often not found in the most deprived areas. Some civic-minded retirees, climate pragmatists, climate idealists, self-builders, and home improvers were part of that group of pioneers. Their motivations to engage were diverse, which proved to be effective⁶.

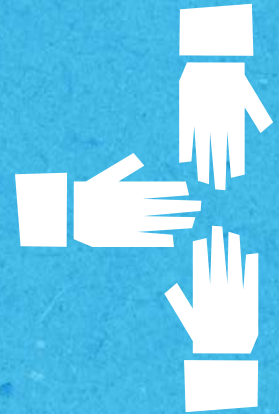
The REV initiative in Jouy-le-Moutier (FR)⁷ also identified specific profiles of citizens motivated to join such a movement. Many of those interested had previously suffered unpleasant experiences with craftsmen delivering poor energy improvements. Their main motivation was not securing a better price but the belief that collective purchasing would more likely ensure higher quality. The appetite for trust was stronger than for a better price.

⁵ Rogers' innovation curve categorises profiles into innovators, early adopters, early majority, late majority, and laggards.

⁶ Agir Local (n.d) REV, rénovation énergétique du Valmoutier [Online] Available [here](#)

⁷ Carbon Co-Op (2019) People Powered Retrofit : A community led model for owned occupier retrofit [Online] Available [here](#)

02



You shall get local authority blessing for the initiative and audit homes with the same method.

One of the biggest barriers to retrofit projects is the lack of trust. Serial sellers of low-quality products and wrongdoers, exploiting citizens' genuine appetite for climate actions, have perpetrated scams. Involving local authorities in the initiative changes citizens' perspectives significantly. They trust the judgement of such organisations and their ability to recruit good experts to guide them, especially at the beginning of the journey, in selecting the right retrofit package. Another key aspect is to have audits and recommendations for solutions delivered using the same methods, ideally by the same professional or company. A homogeneous diagnosis is necessary for collective purchasing of solutions.

The REV initiative in Jouy le Moutiers (FR) began with a collective buy-in scheme for energy audits, subsidised by 80% by the municipality. This initiative included the involvement of an engineer to assist in selecting professionals and ensuring the quality of their work. Similarly, Facirenov in Gradignan & Canéjan (FR)⁸ engaged a single professional to deliver recommendations using a consistent methodology across various homes.

In contrast, the People Powered Retrofit initiative in Manchester (UK) discovered that pre-existing Energy Performance Class (EPC) diagnoses were nearly all inaccurate, with similar houses receiving differing analyses. This discrepancy often required starting the process anew.

Going beyond a low-cost quest for an energy performance certificate is crucial to convincing people to proceed to the next stage. The Energent/ Klimaatpunt initiative in Flanders (BE)⁹ has streamlined a process that includes:

1. A write-up of households' wishes, needs, and financial means.
2. An assessment of the dwelling, focusing on energy efficiency, humidity, safety, and health.
3. A tailor-made plan for the stepwise renovation of the home, including a 3D rendering and cost estimation per m².

Many solutions are unknown or perceived as complex by homeowners, which is why human support and explanation are essential for successful project delivery. Real contact, phone calls, and FAQs are critical. Having calculators to help understand savings and educational resources, as experienced by ZPS in Slovenia, is also beneficial.

8 Facirenov (n.d) Oui à la rénovation énergétique globale [Online] Available [here](#)

9 Klimaatpunt Website

03



You shall remember that **size matters** for better prices, but that it is smart to set different **waves**.

The more similar houses that are retrofitted, the better the price will be. However, it is challenging to promise cost savings at the start and to determine the thresholds. A 10% saving for 30 homes of a certain typology with a specific retrofit package in Ireland might not be a good reference for a project with 30 homes of

a different typology with a different package in France. Feedback on rebates and operational efficiency gains with volume is limited, as local collective buy-in retrofit projects are still relatively rare.

Balancing «waiting for more people to join» with «waiting too long» is crucial, as delays can demotivate people or lead them to pursue individual retrofits. To motivate participants, starting with a small first wave of houses can be effective. Many people without a pioneer mindset trust what they can see. Planning a district collective buy-in scheme in different waves, starting with 5 to 10 houses and potentially expanding to 50 to 100 houses one or two years later, can be a smart approach.

In the REV initiative in Jouy le Moutiers (FR), it was estimated that retrofitting 13 homes in the same district through a collective buy-in scheme resulted in a 5% price rebate. In the Netherlands, some providers of prefabricated industrial insulated façades (connected to the Energiesprong movement¹⁰) working on social housing retrofit projects consider bidding only if at least 15 similar houses in the same district are involved in a collective buy-in scheme. The collective buy-in scheme by ZPS in Slovenia (SL)¹¹ also demonstrated that some consumers might withdraw from the project despite better prices if the final cost exceeds their budget.

¹⁰ [Energiesprong Website](#)

¹¹ [ZPS Website](#)

04



You shall invest in the power of grants and subsidies, which are most effective when public services are aligned with each other.

Including services that facilitate access to grants for which households are eligible is crucial to ensuring retrofits materialize. Beyond grants, offering simple financing solutions for the non-subsidized part of the project significantly helps.

Facirenov in Bordeaux Metropole (FR) provides a public 0% loan package for households engaging in collective buy-in scheme projects. Ecovision in Tipperary (IR)¹² supports citizens in obtaining government grants and has partnered with banks to offer dedicated financing packages. The Emergent/Klimaatpunt initiative in Flanders (BE) includes services such as evaluating quotes and applying for grants/subsidies¹³.

La Roue in Anderlecht (BE)¹⁴ benefited from a smartly designed subsidy scheme that required all homeowners in a multiple housing block to commit to a retrofit before a set deadline. This created a strong motivation for neighbour to play an active role in convincing each other, fostering a collective dynamic. Despite well-designed subsidies and financial services proposed by local authorities, it is essential for different services within local authorities to align their practices. Some collective district retrofit projects with local subsidies have been blocked by urban permitting authorities opposed to external insulation or solar panel installations, as seen in France and Belgium.

¹² Ecovision Website

¹³ Oxenaar S. (2019) Citizen-led renovation Klimaatpunt Pajottenland & Zennevallei/Pajopower: "BENOVation coach" [Online] Available [here](#)

¹⁴ Renov-Roue-Rad Website



05

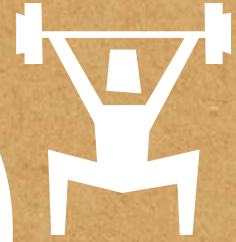
**You shall
set a clear
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and provide
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ment.**

Organizing a collective district retrofit approach must include a clear calendar for engagement. For instance, setting a deadline up to November to sign in for the collective audit procedure helps maintain momentum and prevents people from postponing their decision indefinitely. The process includes different steps, and it's important to allow for disengagement at defined times due to life changes such as divorces, deaths, job losses, or changes of mind. Clear exit options will encourage people to participate, knowing they are not tied to the process indefinitely. It's normal and acceptable for fewer people to be involved at the end than at the beginning.

Facirenov' in Gradignan & Canéjan (FR) experienced that, due to delays caused by COVID, subsidy changes, and the departure of an engineering advisor, 16 out of the initial 35 interested households left the project. A shorter, more structured timeline would likely have resulted in more projects reaching completion.

Som Energia, which organises collective buy-in schemes for solar panels for citizens in Catalunya (ES) and is considering extending its actions towards energy efficiency measures, operates in a timed and transparent manner with a clear 8-month schedule. This includes 2 months for pre-study, 1 month for recruiting an engineer for final design and support for tendering, 2 months to confirm signing, 2 months for study and permitting, and 1 month for installation. You have up to a certain deadline to sign up; if not, you will wait for the next wave. The Clear X collective EU project, of which ZPS in Slovenia is a part, also highlights the importance of setting a clear rhythm with «waves of buy-in periods» to motivate people to move from intention to action.

06



You shall not forget to support the supply side to meet the grouped demand.

Ensuring local contractors are ready to handle grouped demand is crucial and should be prepared in advance. The market typically caters to «one home» projects for individuals and «100-home» projects for housing organisations, leaving few players ready to address a group of several dozen individuals. Grouped demand for retrofit projects will fail if companies do not respond to the call for tenders. Preparing the supply side and standardising it is key.

Ecovision in Tipperary (IR) works with a network of selected, trusted contractors and helps develop new entrants to the market as they expand demand and activities in new communities. Emergent / Klimaatpunt in Flanders (BE) worked to select local companies for 4 to 12 standard packages, such as attic insulation, internal inclined roof insulation, cavity wall insulation, cellar insulation, ventilation, renewable heating systems, windows, and external wall insulation with set prices. Several thousand quotes have been requested, and more than a thousand projects have been delivered.

In La Roue in Anderlecht (BE), this issue was overlooked and became a challenge for the project. The future challenge, with a regular and more streamlined demand for clear retrofit packages, will be to industrialise solutions and methods when there are regularly batches of more than 20 homes of the same typology to collectively retrofit. The market is currently too emerging for streamlined industrialised prefab solutions to make a significant difference. However, there will be a time for it. The Future Factory consortium is working on this in the Netherlands.

07

Setting projects with existing communities of trust makes implementation easier.

Building on existing local communities of trust, where people already know each other or engage in activities together, greatly simplifies project implementation. Would you engage in a collective project with significant expenses with someone you barely know? This is unlikely. Pioneer approaches show that leveraging existing local communities, where trust was built for other reasons, makes projects more likely to succeed. These communities might include people managing community gardens, parents with children at the same school, colleagues, or members of the same sports club. It is

crucial, when deploying such an approach in a district, to map out these existing local networks of trust.

In Catalunya (ES), Som Energia¹⁵ capitalises on citizens who previously invested together in renewable crowdfunding projects. By organising collective buy-in schemes for solar panels for self-consumption, region by region and in waves, they build on this foundation of trust. After investing €5,000 to finance solar panels on a school or public building with other citizens and seeing the project well delivered, citizens feel more naturally inclined and safe to participate in a local collective buy-in scheme to repower their own homes. The Centrale Villageoise movement (FR) follows a similar path.

The REV initiative in Jouy le Moutiers (FR) likely benefited from the dense and active associative life in the area, with many neighbours already engaging in collective activities. Similarly, in La Roue in Anderlecht (BE), having a neighbour knocking on your door to convince you to join the movement (because both of you would receive higher subsidies) is more convincing than a pitch from a random salesperson you've never met.

To facilitate decision-making and build local trust, People Powered Retrofit in Manchester (UK) organises collective training sessions about the stakes and solutions before residents have to decide on investments. Conducting these sessions in a fun, learning-oriented style, often over food to encourage discussion and address specific concerns, helps build trust among inhabitants.

¹⁵ Som Energia Website

08



You shall bear in mind that doing things in a stepped way is fine. Some seeds will grow later.

Adopting a stepped approach can be very effective. Projects that affect people's homes can be quite emotional and require mental readiness and alignment with a favourable personal situation when the

opportunity arises. It's normal to experience some dropouts along the way. This should not be seen as a wasted effort. If the project's success helps to overcome their apprehensions or if their financial situation improves, they might return later to join a collective buy-in scheme or undertake a home retrofit independently.

People Powered Retrofit in Manchester (UK) found that less than 25% move forward after an audit. In Flanders (BE), Energent / Klimaatpunt have an average of 35% of quote requests resulting in project delivery. In Jouy le Moutiers (FR), out of 102 participants in the REV district social inquiry, 75 signed up for the collective buy-in scheme for an audit, 22 committed to requesting quotes for a project delivery, and 13 actually proceeded. In Berlin (DE), Bürger Energie also proposed a stepped approach to citizens: they first provide support for system design, then offer to purchase the systems for you, and finally introduce you to installation professionals.

Trust relates not only to the people but also to the deployed solutions. Investing in an unfamiliar technology with people you know but through an organisation you don't know involves too many uncertainties. A stepped approach can help overcome this. You could first organise a collective buy-in scheme for an electricity supply contract, then for energy-efficient appliances like ovens and LED lights, which everyone knows well. Next, you might move to a collective buy-in scheme for solar panels, seen as a mature technology with few risks, and only then proceed to a collective buy-in scheme for heat pumps or external insulation. This is the approach recommended by the Clear X collective with ZPS in Slovenia¹⁶.

¹⁶ Euroconsumers (2024) Clear-X : Bringing collective purchasing for sustainable energy solutions to thousands more consumers [Online] Available [here](#)

09



Project leadership profile clarity matters, and easily replicable cooperative models work well.

In a collective retrofit journey, the profile of the organisation leading the effort is crucial. This could be a purely local grassroots citizen-led initiative, a citizen-led initiative co-financed by local authorities, a citizen-led initiative connected to a national cooperative movement with available resources, an initiative solely driven by local authorities, a national consumer association effort, or a private company effort. Leadership by a non-profit or publicly-based organisation is generally more favourably received.

However, the intentions of the leading entity are not enough; professionalism and quality of services delivered are also essential. Leading such an effort requires specific skills and expertise that cannot be improvised. This is why models combining non-profit structures with high levels of professionalism and nationally structured back-office support work well. These operate on «franchise models» with standardised methods, approaches, tools, and cooperative governance. Centrales Villageoises (FR), Som Energia (ES), Ecovision (IR), and People Power Retrofit (UK) are organised in this way, allowing for easy scalability. Services supporting models driven by local authorities, like Energent / Klimaatpunt (BE) or Facirenov in Bordeaux Metropole (FR), connected to the national Serafin network, can also be very effective.

Experience is a significant factor in these approaches. The Clear X collective project, active in seven EU countries (Bulgaria, Cyprus, Lithuania, North Macedonia, Portugal, Slovakia, and Slovenia), showed that the partner with the most experience, ZPS in Slovenia, achieved the best success rate. It takes time and effort to build the knowledge and confidence needed to deliver these projects. When an organisation is setting up for the first time, implementation can be challenging, and project leaders must remain committed to making it work. One of the challenges in scaling up collective district retrofit initiatives is finding the right people to deliver them. This is a relatively new field, and there are few trained professionals. People Powered Retrofit (UK) highlighted that the limited number of skilled specialists could become quickly overbooked, limiting the capacity to scale. A key success factor for Ecovision (IR) was the involvement of unpaid volunteer directors from the participating communities in the board structure. Finding skilled, experienced people willing to volunteer is highly beneficial but can be a limitation if such profiles are not available in the target area.

10



**You shall
try not to
be boring
or overly
technical,
it is key to
win hearts
and minds.**

House energy retrofit can often be perceived as highly technical, causing many people to be reluctant to engage with it, viewing it as tedious. However, anything related to our homes can also evoke strong emotions. It is important to build an “appetite for retrofit” among citizens in a district to reinvent its life and atmosphere.

Climate change is no longer a distant concept; it is very real. Better homes contribute to a better life. In

a district in Hem (FR)¹⁷, where Energiesprong deep energy retrofits have been performed, the 10 Net Zero retrofitted houses have become safe havens during summer heatwaves, thanks to their strong insulation. Tenants in other houses belonging to the same housing organisation are now requesting similar retrofits, not primarily for energy bill savings, but for the significantly improved quality of living.

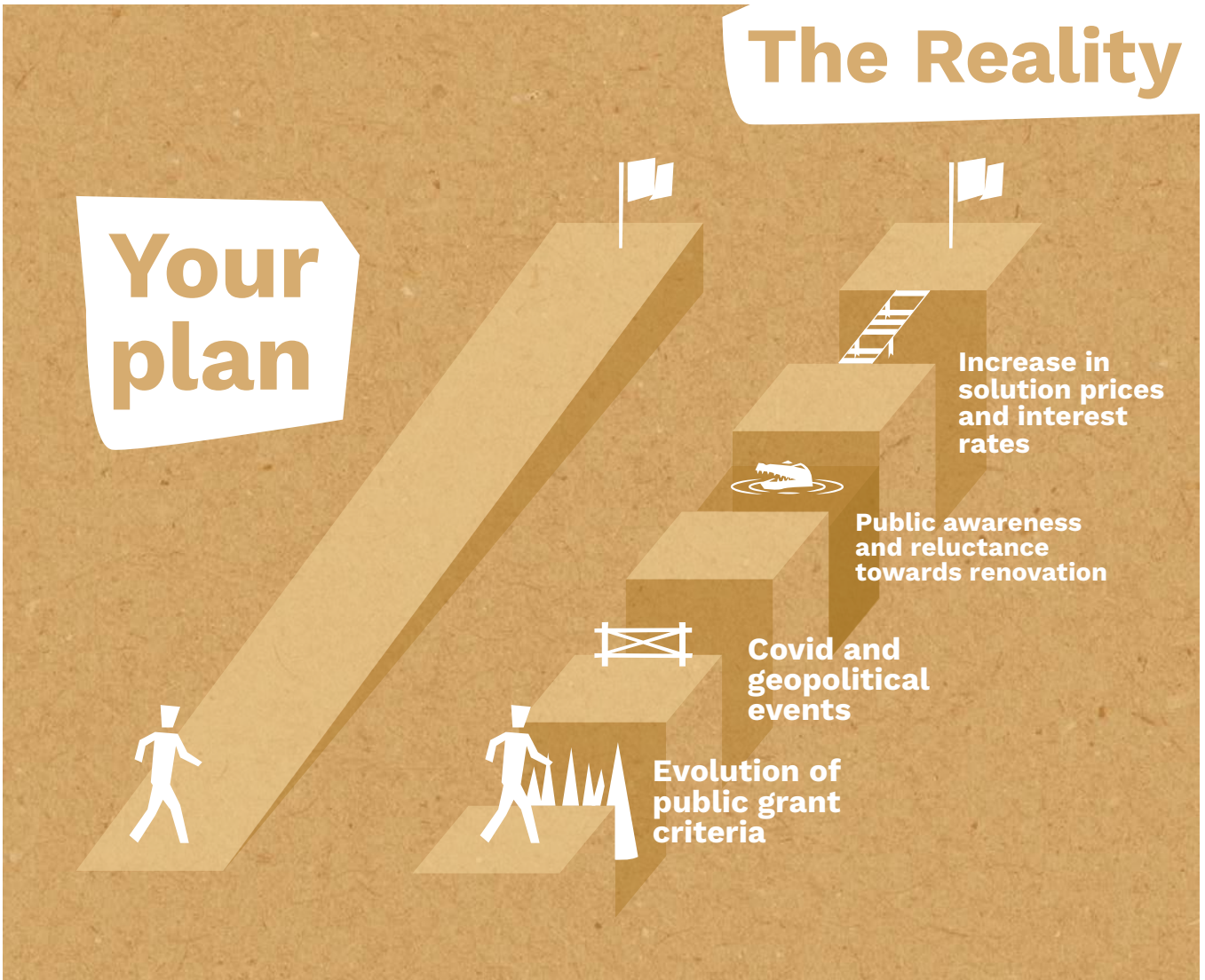
People Powered Retrofit has focused extensively on winning the hearts and minds of citizens. They organised green open homes weekends, peer learning sessions, and home energy parties. They offer experiences such as using heat cameras and testing for air leakage. Improving energy and climate performance does not have to be boring; gamification can help.

Incorporating some “Do-It-Yourself” actions into a retrofit package can also boost citizens’ interest, making them feel like active participants in the process. In Berlin, Bürgerenergie offers citizens the opportunity to install solar panels themselves through their collective buy-in scheme. They provide community coaching to reduce installation costs, as well as tools, safety equipment, and planning advice to ensure the best results¹⁸.

Some initiatives also organise energy sufficiency contests and games to incentivise low energy consumption. Som Energia (ES), Centrale Villageoise (FR), and Ecovision (IR) use trained facilitators to guide people on how to best reduce their domestic energy consumption. They also provide access to video games and card games on the topic, making the learning process engaging and enjoyable.

¹⁷ France ville durable (2018) Rénovation Energiesprong de 10 logements à énergie 0 garantie sur 25 ans [Online] Available [here](#)

¹⁸ Buerger Energie Berlin (n.d) Gemeinschaftlicher Selbstbau [Community self-construction] [Online] Available [here](#)



▲ Source: People Powered Retrofit : A 'Street Cake' made by a resident of Link Road in Birmingham as part of a co-creation week around neighborhood climate transitions hosted by Civic Square.

Scaling Up Everywhere Faster: The Next Step for Collective Home Retrofits

01

Ecological Planning Starts Here:

Communities should initiate retrofit waves, beginning with small ones, and plan many in collaboration with citizens and authorities.

02

Promote Collective Home Retrofit with Public Subsidies:

Public subsidies should be dedicated to promoting collective home retrofits, from homogeneous audits to bonuses on work grants.

03

Support Only a Few Standard Retrofit Packages per House

Type: This approach will help structure value chains, significantly lowering prices as scaling increases.

04

Strong Local Governance:

Community leaders connected to national and EU networks are essential to combine trust, professionalism, and efficiency. This is the model to praise.

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