

An aerial night view of a city. In the foreground, a large, classical-style building with many columns is illuminated. The roof of this building is green with various plants and structures. In the background, several modern skyscrapers are lit up, creating a vibrant cityscape.

Sustainable Society E-book

# 3 STEPS FOR RESILIENT CITIES

**RAMBOLL**

# INTRODUCTION

At Ramboll, we believe that knowledge connects people across professional and national boundaries. Through our partnerships with clients across the world, we have identified a number of insights, best practices and processes that we believe can strengthen cities.

In this e-book we have synthesized key learnings that have been central in adding value to urban planning processes and city solutions. The purpose is to equip our urban stakeholders around the world with a set of tools that allow for informed decisions when it comes to ensuring resilient cities. These tools are presented in three steps:



How public decision making can turn cities liveable

How public involvement can improve climate solutions

How to pay for an unknown future





# 1. HOW PUBLIC DECISION MAKING CAN TURN CITIES LIVEABLE

It is a well-described task to build energy efficient buildings or transport facilities. The challenging part is to create solutions that contribute to building resilience, while also enhancing quality of life in a city. Consider these four steps:

1

**Identify and understand** needs and wishes for society development at all relevant stakeholder levels.

2

Work from a **common vision** and set up goals. All strategic decisions should support and enhance this vision, guiding the city towards its **liveability goals**.

3

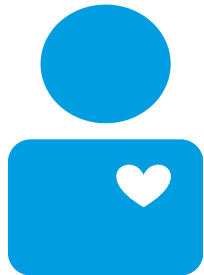
Use necessary investments to **enhance urban equality and security**, both in terms of socioeconomic development and climate change risks.

4

**Prioritise efforts** within as many of the five driving forces for liveable city development as possible: social coherence, economic growth, environmental sustainability, good governance and urban planning.

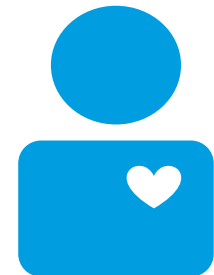


# THE CHALLENGES OF GETTING TO KNOW YOUR STAKEHOLDERS



More often than not, public authorities do not know the **needs and wishes** for development at different stakeholder levels, and organisational structures might not support a holistic approach where multiple purposes are included into climate initiatives. For instance, silo mentality can become a heavy barrier for progress, and Key Performance Indicators often do not allow or motivate overlapping activities and co-creation.

Another challenge is **urban inequality**. Urban areas with run-down buildings, high crime rates and poor or socially vulnerable people may be more at risk and less resilient to the impact of climate change, but might not have the financial clout to act. In other words, the people paying for investments are not always those who enjoy the benefits. This can reinforce the lack of incentives for funding and collaboration and widen the inequality gap.



## CO-CREATION IS KEY

Decision makers must involve their own organisation and facilitate horizontal and vertical dialogue throughout the city administration internally to utilise existing relations and expertise. The environmental, social and economic motivation must be defined and aligned between stakeholders to reach the necessary level of commitment. In other words, co-creation is key.

Co-creating a vision with the inclusion of public stakeholders strengthens all steps in a phased process, and ensures increased social, economic and environmental strength.

[Read about the importance of a holistic approach](#)

[See how we turned a concrete canal into a recreational river in Singapore](#)

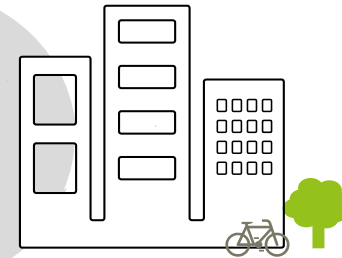
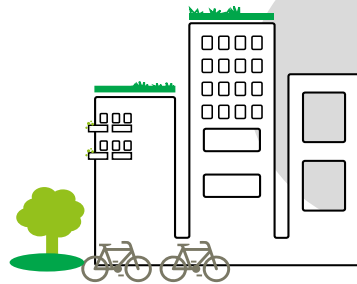


Four steps to consider...

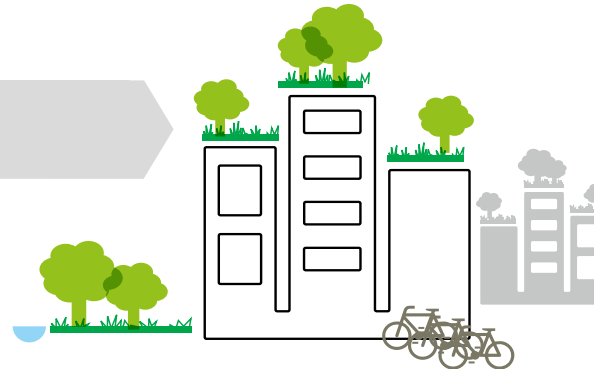


**STEP 1:  
CRAFT A COMPELLING  
VISION FOR THE CITY'S  
DEVELOPMENT AND PHASE  
IN GREEN INITIATIVES**

**STEP 2:  
PICK LOW-HANGING FRUITS**  
Initiatives with low costs and  
quick benefits



**STEP 3:  
CONCRETE GREEN GROWTH AND  
DEVELOPMENT INITIATIVES**  
Initiatives that change and promote  
the strategic objective



**STEP 4:  
CO-CREATE STRATEGIC GOALS**  
Initiatives that can only be achieved  
by co-creating across service areas  
and strategic priorities



# CITIES ACCOUNT FOR 75% OF THE GLOBAL ENERGY CONSUMPTION



## 2. HOW PUBLIC INVOLVEMENT CAN IMPROVE CLIMATE SOLUTIONS

To establish a process that allows for public involvement in a way that benefits and strengthens climate solutions, consider the following 5 points:

- 1** Involve key stakeholders as early as possible and continuously, to **ensure co-ownership** and reduce negative impact from public resistance.
- 2** Take an **open, holistic and dialogue-based approach** to make sure that no needs are ignored.
- 3** **Assess stakeholder's** knowledge base, likeliness to act, bias, and favourite causes to ease prioritisation and resource management.
- 4** **Use socioeconomic impact assessment** as an integrated part of political and administrative decision making to ensure long-term positive impact.
- 5** **Be agile and ready** to act on public input to realise possibilities and maximise synergies.





# THE CHALLENGE OF INVOLVEMENT

Planning and implementing climate solutions demand a certain level of prior understanding. Identifying the different interests at stake can seem like a mountain to climb, and it remains a central barrier for involvement of society stakeholders, whether it be the voices of the business community, knowledge institutions, social organisations or the actual citizens.

There are at least three society groups that can influence climate investments:

- It is crucial to examine the needs and wishes among business leaders. If not, you may miss the commercial concerns and lose out on investment, green growth potential and job creation.
- It is necessary to consult knowledge institutions and industry experts. If this step is omitted, you may lack the evidence-based insights needed to invest in a solution that actually works and stimulates long-term development of the city.
- Finally, involve the citizens. Skipping this step implies that you risk developing a technical solution that only contributes to create resilience, and does not support overall liveability goals that benefit the general public.

The process of engaging stakeholders in climate initiatives can be divided into two phases: Identification and involvement. The benefit of incorporating these two phases in the decision-making process is that your city becomes more resilient and better equipped to tolerate climate change.

[Learn more about the identification and involvement phases](#)



## CASE: A NEW WAY TO INVOLVE CITIZENS IN PUBLIC DECISION MAKING, GERMANY

Setting the direction for an entire region is like flying a plane with hundreds of captains in the cockpit. That is, if you're ambitious enough to invite them in. The German State of Schleswig-Holstein finds itself in the middle of a complex development process where the level of citizen participation reaches new heights. And the forecast is that the approach will empower the regional strategy to become long-term sustainable.

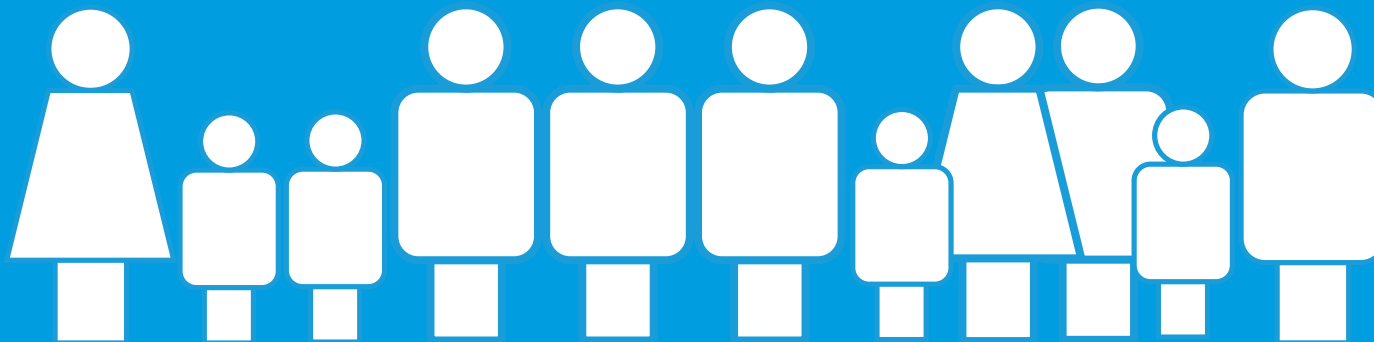
While the approach may seem simple, the complexity of the project is huge. Like many European regions, Schleswig-Holstein deals with more than a few challenging changes: Demographic and climate changes, energy policies, debt-ceiling, increased individualisation and the demands of the knowledge society, just to name a few.

Co-development is at the core of the strategy. From the very beginning of the process, citizens and stakeholders have played a strong role. The idea has been to kick off the strategy building with very limited pre-defined input and content requirements from the government and leave it to citizens and relevant stakeholders to define topics from scratch. Usually, citizen participation begins at a later stage when key aspects of the decision process have already been defined. The risk is that citizens will only get the chance to comment on an existing draft with little chance of changing it. Schleswig-Holstein chooses another path embarking on a new way of involving the public in political decision-making.

[Learn more about this project](#)



# 6 BILLION - THE NUMBER OF PEOPLE LIVING IN CITIES IN 2050



# 3. HOW TO PAY FOR AN UNKNOWN FUTURE

Adapting to climate changes is a financial burden which cities must bear. This means that they need to identify financing options, often requiring a new mindset and knowledge:

- 1** **Analyse** potential risks and map the costs of not acting on these risks - from damage to infrastructure and property loss, social inequality, environmental degradation, insecurity and even lives lost.
- 2** **Encourage** interdisciplinary, multi-stakeholder representation to maximise investments.
- 3** **Identify** all stakeholders, and estimate each stakeholder's costs, benefits and return on investment (ROIs) to create leverage, buy-in and co-ownership.
- 4** **Reprioritize** current practices. Make sure to scrutinize the routine-like budget allocations for infrastructure and maintenance.



# LOOKING FOR THE POWER TO FINANCE

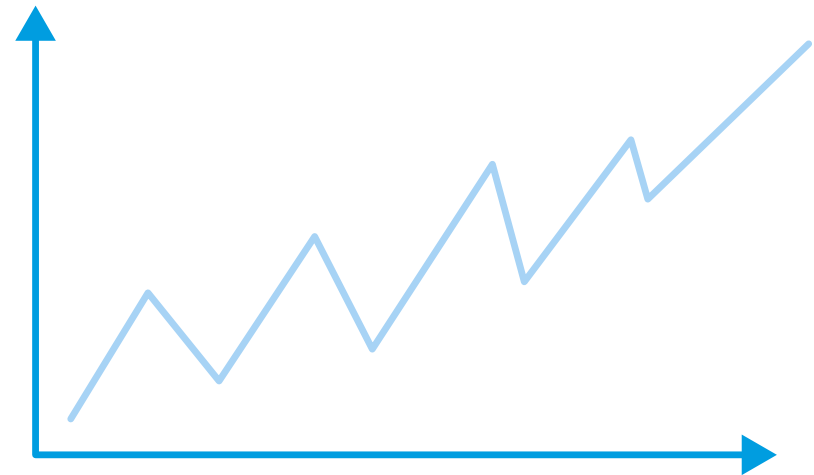
Cities are the nexus of human life, welfare and economic growth. In other words, cities represent the backbone of society. But the backbone risks breaking as extreme flooding, heat waves and storms threaten billions of lives, natural capital and physical infrastructure.

Most cities are ready to act on climate change, and there are solutions available that can build resilience. However, a lack of legislative power and authority to mobilise finances within a national framework can be counterproductive.

We know that climate change affects and will continue to affect city budgets in decades to come. The uncertainty lies in the exact impact of climate changes.

That is why cities also need to consider the costs of doing nothing.

[Learn about our socio-economic framework](#)



# KNOWING THE COST OF DOING NOTHING

Mapping the costs of action and inaction and gaining an understanding of the full consequences in a financial perspective is beneficial because:

1. An analysis is instrumental in achieving overview and scope.
2. An analysis will pinpoint areas that can be used as business cases and for demonstration purposes.

The costs of inaction often outweigh the costs of action. These cost of doing nothing is not only measured in material damages, but also in lost investments, loss of working hours, insecurity, and in the worst instance – lives.

Decision makers should apply a holistic approach to analyse economic, social and environmental consequences for all stakeholders involved. Making investments for climate adaptation and mitigation do not always require a unique business case.

## It is key to:

- Understand the wider socioeconomic potential of urban planning and design projects.
- Identify winners and losers and their expected ROIs to form a common language.
- Bring different professions and competences such as public utilities and private companies together in co-creation.

[How climate adaptation can improve quality of life and save costs](#)

[Zooming in on New York's climate challenges](#)





## IN MOST CASES, BUILDING A MORE RESILIENT CITY WILL BRING ADDED BENEFITS, INCLUDING:



Better, healthier and more democratic transportation systems



Energy security and flexibility



Access to better, smarter technology



Enhanced business opportunities



Social coherence and cultural stimulation



More liveable cities and green growth



# FINAL THOUGHTS

At Ramboll, we believe that knowledge connects people across professional and personal borders. We have seen first-hand how co-creation adds value to urban planning processes. Over the years we have equipped our clients and stakeholders with a set of tools that allow for informed decisions ensures resilient cities, while enhancing quality of life around the world.

Our global stronghold lies in bridging the gap between the classic engineering disciplines and the strategic development of cities. We work with the people on the ground, the local engineer who handles waste water, the gardener who takes care of green infrastructure in the city, with the local stakeholder group. If we did not work with multiple perspectives in the decision process, all the way from idea to implementation, we could not truly be sustainable society consultants.

Would you like to know more?

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