

# Transform – WP1 Deliverable 1.3



## TRANSFORM Project Intake workshop & SWOT methodology

Amsterdam  
September 2<sup>nd</sup> 2013



# TRANSFORM Intake workshop & SWOT methodology

The intake workshop methodology was developed to support cities in deciding what to focus on in the TRANSFORM programme. The workshop also facilitates a natural flow between the conclusion of WP1 and the start of the support for cities from WP2. The analysis conducted by WP1 including the baseline analysis and the scoring of cities on their performance on elements of the Smart Energy City definition is the starting point. The SWOT methodology will build on this and provide a more detailed analysis of the specific barriers and opportunities for the city. Lastly, the decision will be made on what will be asked from the TRANSFORM programme, mainly focusing on qualitative decision support tools, such as financial models, legal frameworks and stakeholder engagement.

## How To Use This Document

This document provides information on the intake workshop and the Transformation Agenda. This document is a proposed set up of the intake workshop. The workshop design and the tools (SWOT methodology and impact versus ability to implement matrix) are yet to be finalised. The main addition will be to process feedback from the city and adjust the tools and methodologies after feedback from facilitators.

In the coming months the generic proposal will be tested in the city workshops, which are planned as follows:

City	Proposed Split	Date
Vienna	Accenture & Arup	17-18 Sept
Amsterdam	Accenture	8-9 Oct
Copenhagen	Arup	Early Oct
Hamburg	Arup	Early Oct
Genoa	Accenture	24-25 Oct
Lyon	Accenture	1-2 Nov

Deadline for reviewed methodology is set for December

- 
- **Introduction to the Transformation Agenda**
  - Objectives of the Transformation Agenda
  - Workflow of the Intake workshop
  - (SWOT) Methodologies

# Definition of a Smart Energy City

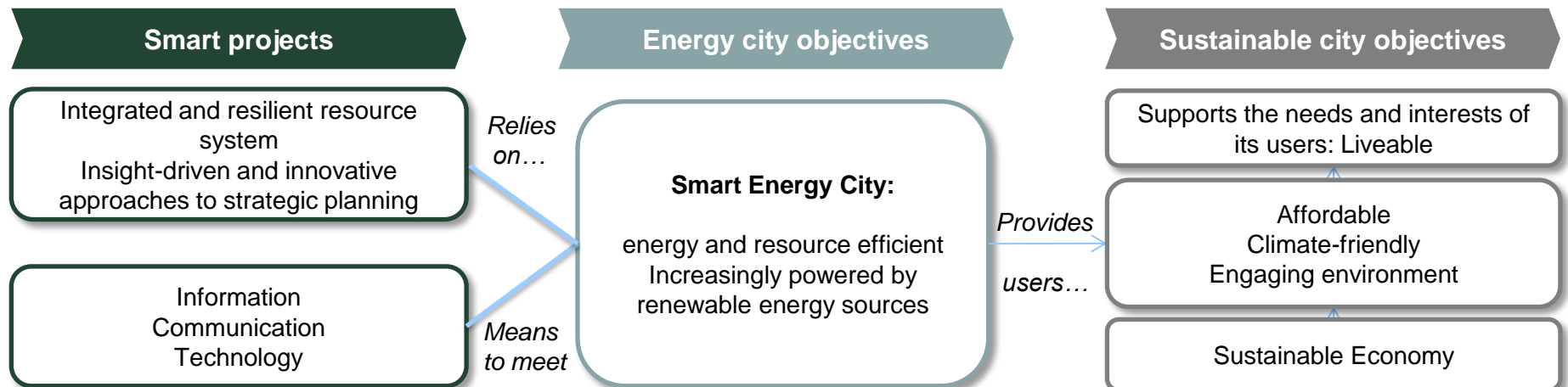
The smart energy city definition combines the EU carbon reduction targets within the environmental, social and economic goals of the city

## Smart Energy City definition

The Smart Energy City, as a core to the concept of the Smart City, provides its users with a liveable, affordable, climate-friendly and engaging environment that supports the needs and interests of its users and is based on a sustainable economy.

The Smart Energy City is highly energy and resource efficient, and is increasingly powered by renewable energy sources; it relies on integrated and resilient resource systems, as well as insight-driven and innovative approaches to strategic planning. The application of information, communication and technology are commonly a means to meet, these objectives.

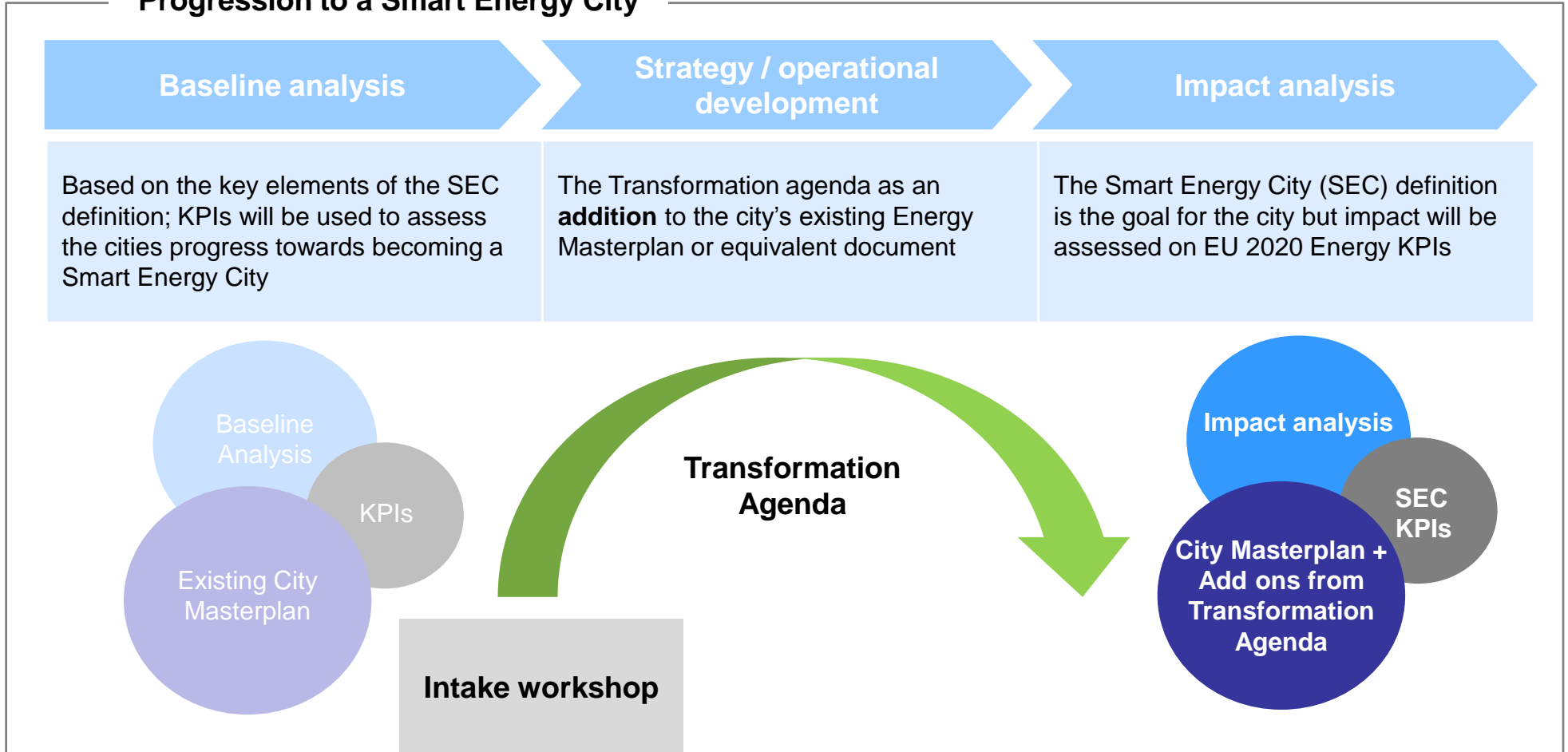
## Visual representation of the Smart Energy City definition



# Transformation to a Smart Energy City

The Transformation Agenda will set out how the city progresses from its current state- demonstrated in the Baseline Analysis- to become a Smart Energy City. The KPIs measure this progress.

## Progression to a Smart Energy City

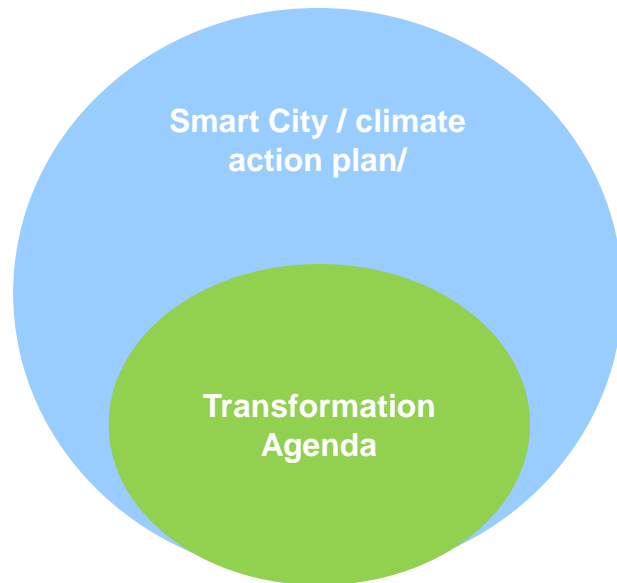


# Introduction to the Transformation Agenda

The main outcome of the workshop will be a prioritization on 3-5 themes that will be worked on in the rest of the TRANSFORM programme within a governance structure decided on by the stakeholders

## City objectives of the intake workshop

The Transformation Agenda will not re-write the city's entire Energy Master Plan but will help on certain areas of the city strategy



The outcomes of the intake workshop should help the city with:

### 1) What to focus on within TRANSFORM:

Produce 3 integrated themes with commitment to work on these themes within TRANSFORM by stakeholders

For the three integrated themes understand the key strengths and weaknesses related to the enabling factors

### 2) How to ensure coordinated action by focusing on governance, enablers and ability to implement:

Plan a governance structure around the 3 integrated themes

Involve stakeholders in the process to experience how the framework strategy can be implemented

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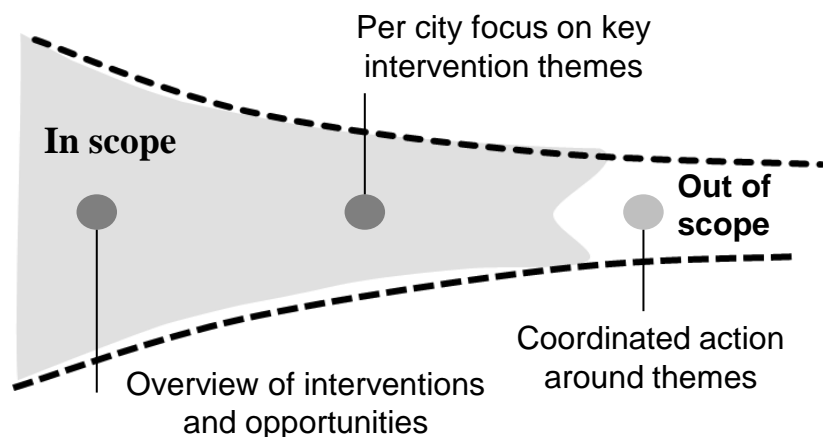
# TRANSFORM objectives for intake workshop

The objective of the city should align closely with the objectives of the TRANSFORM work packages where the focus lies on testing and developing key methodologies such as the SWOT and down-selection methodology

## TRANSFORM objectives of the intake workshop

The intake workshop is a key process-step in the development of the Transformation Agenda that will provide input for the Transformation Agenda and help the process of developing a generic handbook for the EU

### Generic city Transformation Agenda process:



- The Intake workshop is the first step in the development of a TA
- The output of the intake workshop will be used to drive coordinated action with stakeholders

### EU generic objectives

#### WP 1:

- Review of baseline scenario
- Review and write-up SWOT methodology

#### WP 2:

- Identify key priorities for the TA
- Test down-selection process for the TA and interdependency with enabling factors
- Test entire process of intake workshop

#### WP 3:

- Support decision-making process through data and modelling
- Test down-selection methodology

#### WP 5:

- Develop Transformation Agenda Handbook for dissemination in EU cities







# City objectives for intake workshop

The city of <<>> wants to use the intake workshop to decide on key priorities in the framework strategy and how to act on these key priorities within a new governance structure

## Current situation in City

<<Input based on city situation>>

**Illustrative**

- Energy Masterplan 
- Key Themes 
- Enablers 
- Stakeholders 

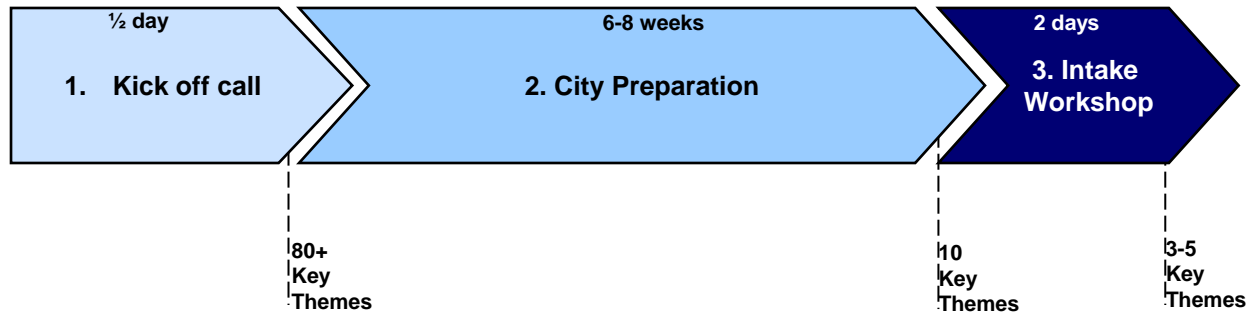
## City input for key questions

<<Input based on city situation>>

- 
- Introduction to the Transformation Agenda
  - Objectives of the Transformation Agenda
  - **Workflow of the Intake workshop**
  - (SWOT) Methodologies

# Intake Workshop

This note introduces the Intake Workshop. Each city will have a two day workshop which will engage a range of key stakeholders, allowing the Transform cities to focus and define the aspirations for their Transform Agenda.



## 1. Kick off call

- To prepare for the workshops a call will take place 2 months in advance between WP1 and the city coordinator.
- The city will be provided with a long list of possible key themes typically assumed to be 80+ options at this stage.
- Prior to the workshop, and in collaboration with WP1, the city will select 10 of these key themes they would like to focus upon.

## 2. City Preparation

- Prior to the workshop, and in collaboration with WP1, the city will select 10 of these key themes they would like to focus upon.
- The city will select the stakeholders for collaboration on the themes to invite to the intake workshop.

## 3. Intake Workshop

- The workshop will build on:
  - Existing work carried out by WP1: the Smart Energy City definition, the KPIs and the City Baseline Analysis.
  - The city's list of 10 selected key themes.
- A city-wide SWOT analysis will be undertaken to set the context
- Review of the baseline data for the city and the 10 selected themes,
- Down-selection from 10 key themes to highlight 3 - 5
- **Intake Workshop deliverables:**
  - SWOT analyses for the city and for their selected three key themes.
  - Feeding into WP2: (Concept) Qualitative model and identification of cross-cutting and enabling themes for WP2

### **Question for City coordinators: Two day intake workshop**

- Should the first day be internal to the city, and the second day include external stakeholders?
- Should the two days be consecutive?

The first step will be a phone call between each city and WP1. The intake workshop will identify the specific needs of each city; the call will assist all parties in with their preparation for the intake workshop.

**When:** 6 – 8 weeks prior to the scheduled Intake workshop for that city

**Who:** Parties on the call will be the city coordinator, the Smart Urban Lab coordinator, WP1 representatives (Arup / Accenture and WP1 Package Leader), and local manager for WP2.

## Agenda:

### 1. Objectives for the city- *What does the city want to get out of the intake workshop?*

A discussion to agree the objectives for the city, exploring the following questions: What does the city want to achieve from the intake workshop? What are the key drivers for the city? What is the local context for the workshop? It is crucial that the workshop is planned in such a way that it is relevant to each specific city and aligns with the local environment.

### 2. Key themes - *What does the city want to focus on?*

The intake workshop will refine the priorities for each city, by selecting a group of key themes to focus on.

During the kick-off call WP1 will present a sample list of 80+ themes for the city to consider, the city will then be guided by WP1 on how to refine this list.

- I. **Localise the list-** The city will be encouraged to review the sample list and freely tailor it. We will explore how the sample list aligns with the city's existing local policies, strategies and existing initiatives as well as their Climate Change Action Plan, sustainability plans and their Smart Urban Lab. The aim of this will be to create a baseline, benchmark list of themes for action within each city.
- II. **Down-selection criteria-** Over the following weeks , the city will be asked to refine their list of key themes. A clear set of downsizing criteria have been produced to help the city achieve this. On the kick-off call, WP1 will provide the rationale behind the down-selection criteria and explain how the city can use them.

### 3. Stakeholders- *Who does the city want to involve?*

In preparation for the intake workshop, the city will be asked to invite local stakeholder who they would like to engage in the process. During the kick-off call, WP1 will provide some guidance on which stakeholders could be invited, and also discuss a process for inviting them.

### 4. Outputs- *What does the City need?*

Finally, the city and WP1 will review what outputs they hope to get from the workshop. Does this align with the City's requirements? Does this align with the requirements of the other Transform work packages?

In preparation for the Intake workshop, the city will have two main objectives, firstly to select their 10 top key themes to focus on in the workshop and produce and invite a delegate list of stakeholders to attend the workshop.

## Key Themes

- A list of 80+ key themes for consideration will be issued to the city prior to the intake workshop.
- This list is not intended to be exhaustive and should be supplemented with additional themes as the city requires.

## Criteria for selection of key themes

- Prior to, and during the workshop, the city will refine their focus for their Transformation Agenda by down selecting their list of key themes based on the following criteria.
- The chosen key themes will be refined from 10 down to a final 3-5. The final select of key themes will be those which:
  - Facilitate a high level of stakeholder engagement;
  - Align with the Smart Energy City definition and achievement of the KPIs;
  - Display through the SWOT analysis maximum impact and achievability;
  - Represent a diverse sample of industries/disciplines/subject areas;
  - Are applicable in the Smart Urban Lab;
  - Contain replicable elements for other cities;
- Based on this criteria, the selected three to five key themes will deliver the necessary balanced coverage of industry systems for the formulation of the transformation agenda.

### Question for City coordinators:

#### Selecting the key themes

- Should we request that themes are selected which cover a range of categories?
- Should cities be free to select or not select certain areas?

## Potential stakeholders for engagement

<b>Existing Buildings</b>	Housing authority	Building regulation authority and/or Planning authority.	Social housing organization(s).	Building retrofit trade body
<b>Waste Management</b>	Waste operators / management companies	Waste treatment companies	Municipal waste operator / Contract Management	Advanced Treatment Technology Providers
<b>Public Land Use</b>	City Planners	Transport Planning Authority	Local NGOs	Major Land Owners
<b>Water</b>	Water utility companies	Waste water treatment providers	Technology Providers	
<b>Energy Supply</b>	Energy generators	Network operators	Electricity / gas / other	Energy suppliers
<b>Transport</b>	Freight transport companies	Dept. of Transport	Public transport operators.	Private transport manufacturers

The Key Themes selected by the cities for the Intake Workshop should represent each of the areas below to ensure that the work undertaken during work package three can be representative of the city as an integrated system.

### Existing Buildings

Buildings account for 45% of emissions, and far more in cities in volatile climates which require large amounts of heating and cooling. Mayoral powers in the building sector are usually strong.

#### List of themes



Existing Buildings	Energy Supply	Energy Transport	Energy Efficiency
Energy efficiency / Retrofit buildings, replacement CFL, LED, energy saving mechanisms, insulation etc.			Increase efficiency
Heating and cooling efficiency			
Demand side management		Lowers amount of energy loss on the grid due to peak shaving	
Increase energy efficient appliance purchases			Lowers demand for electricity through increase in efficiency
On-site renewable heat generation			Lowers demand for electricity from the grid if heat generation is a substitute
On-site renewable electricity generation	Increase amount of energy from renewables if electricity is sold on the grid		Lowers demand for electricity from the grid

### Waste Management

Globally, waste accounts for 3% of greenhouse gas emissions. Cities are introducing ways to reduce the quantity, through recycling and composting, and of turning waste material in to energy.

#### List of themes



Existing Buildings	Energy Supply	Energy Transport	Energy Efficiency
Energy efficiency / Retrofit buildings, replacement CFL, LED, energy saving mechanisms, insulation etc.			Increase efficiency
Heating and cooling efficiency			
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### Public Land Use

Planning powers are critical for mayors to adapt their cities to the impacts of climate change. For example, increasing tree cover and protecting green space improves quality of life and absorbs carbon emissions, but also helps reduce urban heat island effects and provides flood protection.

#### List of themes



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### Water

Producing, treating and pumping water requires a high amount of energy, so actions to reduce water use contribute significantly towards emissions reduction. Cities must also find sustainable ways to manage stormwater and wastewater

#### List of themes



Transport	Energy Supply	Energy Transport	Energy Efficiency
Allowances for the use of private vehicles / carpooling / car sharing			Lowers the number of trips made by car, public transport
Increase the efficiency of private transport vehicles			Increase efficiency of fuel per km of transport
Transport demand management			Direct effect on
Use electric vehicles that are a means for the storage of energy		Can enable an increase in % of RE that can effectively be used	
Increase the traffic flow			Increase efficiency of fuel per km of transport due to a decrease in time of trip
Electric vehicle transport encouragement			Increase the amount of people per vehicle
Increase the use of public transport			

### Energy Supply

65% of energy is generated from fossil fuels. Cities are providing innovative solutions to move towards low carbon and renewable energy systems

#### List of themes



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### Transport

Cities emit over 300 million Tonnes of CO2 per year from the transport sector. Cities usually exercise strong powers in the transport sector, in particular through the ownership or operational control of key transport assets and the ability to set and or enforce regulations.

#### List of themes

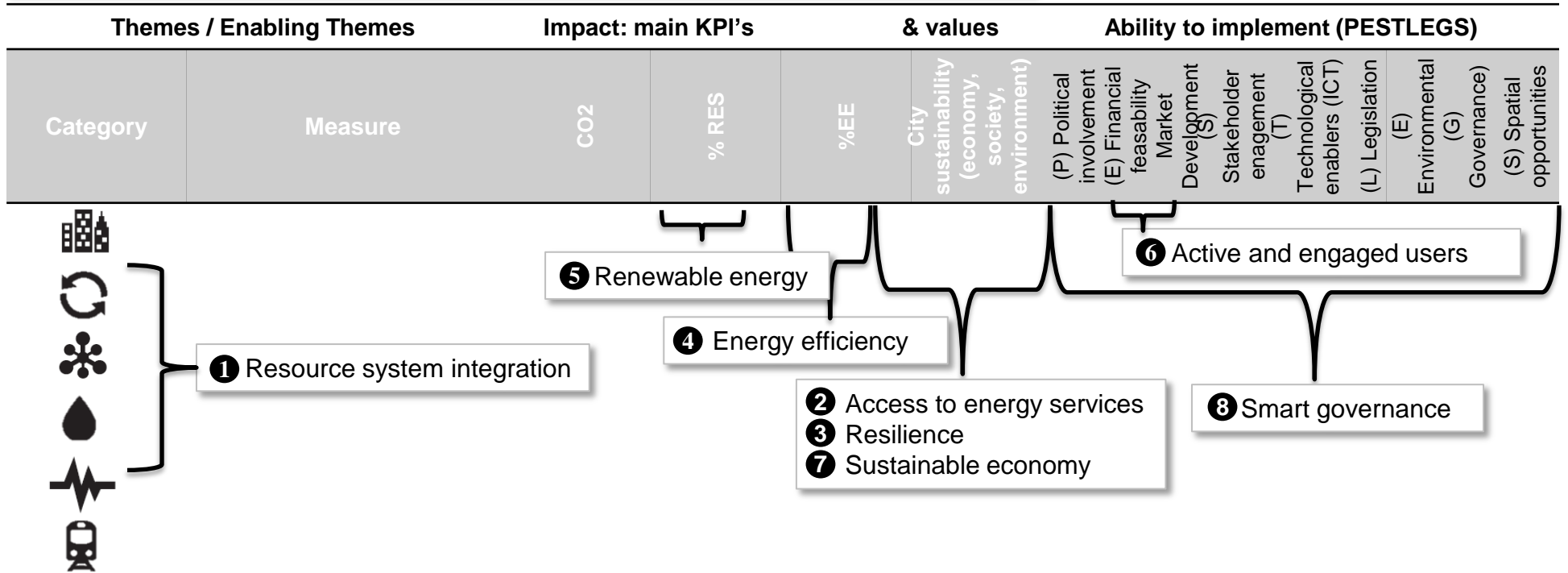


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The key elements of the SEC definition are incorporated into the structure in which to analyse the impact and ability to implement the different themes

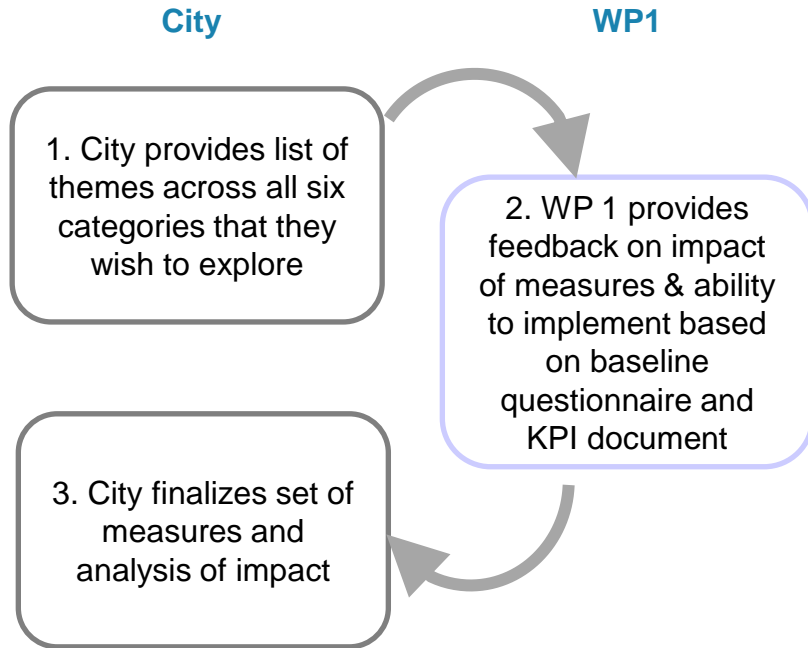
## Key elements of the overall SEC definition

- ① Resource system integration
- ② Access to energy services
- ③ Resilience
- ④ Energy efficiency
- ⑤ Renewable energy
- ⑥ Active and engaged users
- ⑦ Sustainable economy
- ⑧ Smart governance



The city and WP 1 will work closely together to prepare the inputs from the workshop based on work already done in the baseline scenario and the KPI document

## Flow of work for preparation



## Expected outputs and inputs

Themes		Impact				Ability to implement					
Category	Measure	CO2	% RES	%EE	City sustainability (economy, society, environment)	Finance	Stakeholder engagement	Market Development	Legislation	Technological enablers (ICT)	Smart Grid
Buildings	1. Retrofit buildings	●		●	Descriptive story	●	●	●	●	●	●
	2. Geothermal heat capture	●			Descriptive story	●	●	●	●	●	●
Waste	3. Gas capture from land fills	●			Descriptive story	●	●	●	●	●	●
Lighting	4. Replace outdoor lighting system	●		●	Descriptive story	●	●	●	●	●	●
Water	5. Reduce leakages in water infrastructure	●		●	Descriptive story	●	●	●	●	●	●
Energy	6. Waste to Energy	●	●	●	Descriptive story	●	●	●	●	●	●
	7. Wind Farm	●		●	Descriptive story	●	●	●	●	●	●
Transport	8. Maintenance and upgrade of distribution system	●		●	Descriptive story	●	●	●	●	●	●
	9. Lower the use of private transport in the city	●		●	Descriptive story	●	●	●	●	●	●
	10. Increase the traffic flow in the city	●		●	Descriptive story	●	●	●	●	●	●

**Inputs:**  
KPI document (level 1 – 4)  
Baseline scenario: data on Energy KPIs

**Inputs:**  
KPI document (level 1 – 4)  
Baseline scenario: Influence on assets



The workshop flow is divided into seven sections which is centred around the analysis of the potential impacts versus the enabling environment of the energy-related themes

Work Flow	Description	Objective
1. Introduction	<b>Presentation Facilitator WP1</b> <ul style="list-style-type: none"> <li>○ Introduce TRANSFORM project &amp; individual intro's</li> <li>○ Present Baseline report / KPIs and SEC definition</li> </ul>	Set expectations & explain TRANSFORM goals
2. Themes and objectives	<b>Presentation City Coordinator</b> <ul style="list-style-type: none"> <li>○ The generic framework for the TA, Focus Areas</li> <li>○ Presenting the list of Tier II themes considered</li> </ul>	Understanding how TRANSFORM can help to achieve goals of the city
3. Plotting the themes	<b>Plenary exercise: Plotting the themes</b> <ul style="list-style-type: none"> <li>○ Plotting themes :cost effectiveness versus ability to implement</li> <li>○ Group discussion to select main themes to SWOT</li> </ul>	Initial analysis of what themes face the largest challenges
4. SWOT	<b>Group exercise (per Energy theme)</b> <ul style="list-style-type: none"> <li>○ Discuss SWOT per theme with post-it notes</li> </ul>	Consensus on the strengths, weaknesses, opportunity and threats
5. Discussion	<b>Synthesis and plenary discussion</b> <ul style="list-style-type: none"> <li>○ Designated group leader presents SWOT</li> <li>○ Discussion around linkages and combined opportunities</li> </ul>	Overall consensus on main barriers and identify linkages between themes
6. Enabling environment	<b>Group exercise (per Cross-cutting theme)</b> <ul style="list-style-type: none"> <li>○ Formulation of hypothesis to increase ability to implement</li> <li>○ Discuss governance issues regarding implementation</li> </ul>	Identify clear mandate for qualitative decision support: e.g. finance, governance etc
7. Wrap-up	<b>Presentation WP2</b> <ul style="list-style-type: none"> <li>○ Wrap-up from TRANSFORM team.</li> <li>○ What to expect in the next year and a half of the programme</li> </ul>	Clear expectation setting for stakeholders and TRANSFORM for next steps

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# SWOT methodology

The SWOT analysis will be carried out on day 1 of the intake workshop.

## SWOT Methodology

### 1) Tier 1 selection: Key themes

- In Vienna's case- three high level themes have been selected through the framework strategy

### 2) Tier 2 selection: Strategic themes

- Each key theme will foster 3-5 more detailed 'strategic themes'.
- These will be selected such that each can be considered in isolation during the workshop (i.e. 'Building energy efficiency' is suitably specific, whereas 'CO2 reduction' is too general)

### 3) SWOT part 1: Internal factors

- Each 'strategic theme' will be analysed in turn.
- The questions will follow a PESTLE framework to ensure all considerations are covered.
- The first set of questions will cover internal factors; Strengths and weaknesses within the city's control

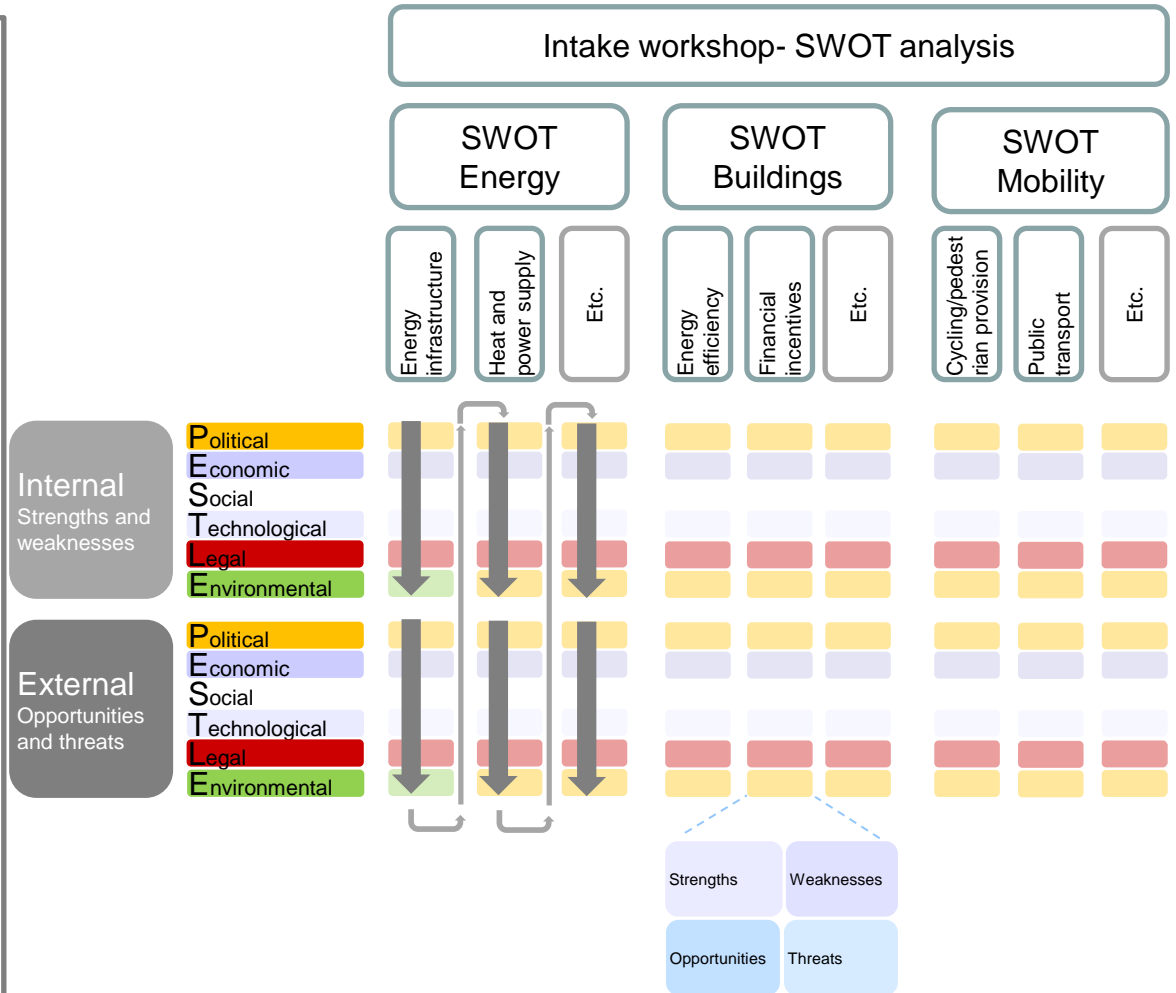
### 4) SWOT part 2: External considerations

- The second set of questions will cover external factors; opportunities and threats beyond the city's control

Stages 3) and 4) are repeated for each strategic theme

### 5) Synthesis: 2x2 matrices

- A 2x2 SWOT matrix will be produced for each 'strategic theme'



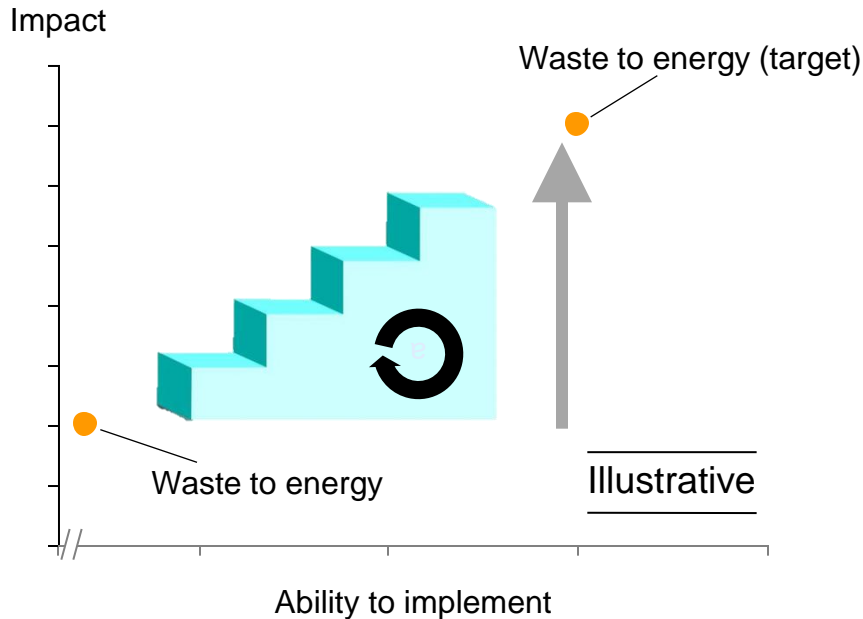
# Impact versus ability to implement




At the end of the workshop each city will commit to 3 – 5 themes with a hypothesis of what actions need to be undertaken to improve the impact of the measure

For each chosen measure the stakeholders will sign off on a scope of the interventions.

The scope of the themes will be set around expected impact, interventions and interdependencies with enabling factors

## Example: Waste to energy



-  Expected or desired impact (goal for interventions) on KPIs (Energy and sustainability)
-  Ideas for needed interventions to overcome barriers to implementations...
-  .... including interdependencies, synergies and enabling factors



# Background from WP1

The smart energy city definition combines the EU carbon reduction targets within the environmental, social and economic goals of the city.

## Vision for the Smart City:

A liveable, resilient city, which is inclusive, climate friendly, data insight driven and fosters innovation and a sustainable economy.

## Definition of a Smart Energy City (SEC):

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## Visual representation of the Smart Energy City definition:

