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TRANSFORMATION AGENDA
FOR LOW CARBON CITIES

TRANSFORM Project
Intake workshop & SWOT methodology

Amsterdam
September 2nd 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 is 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.
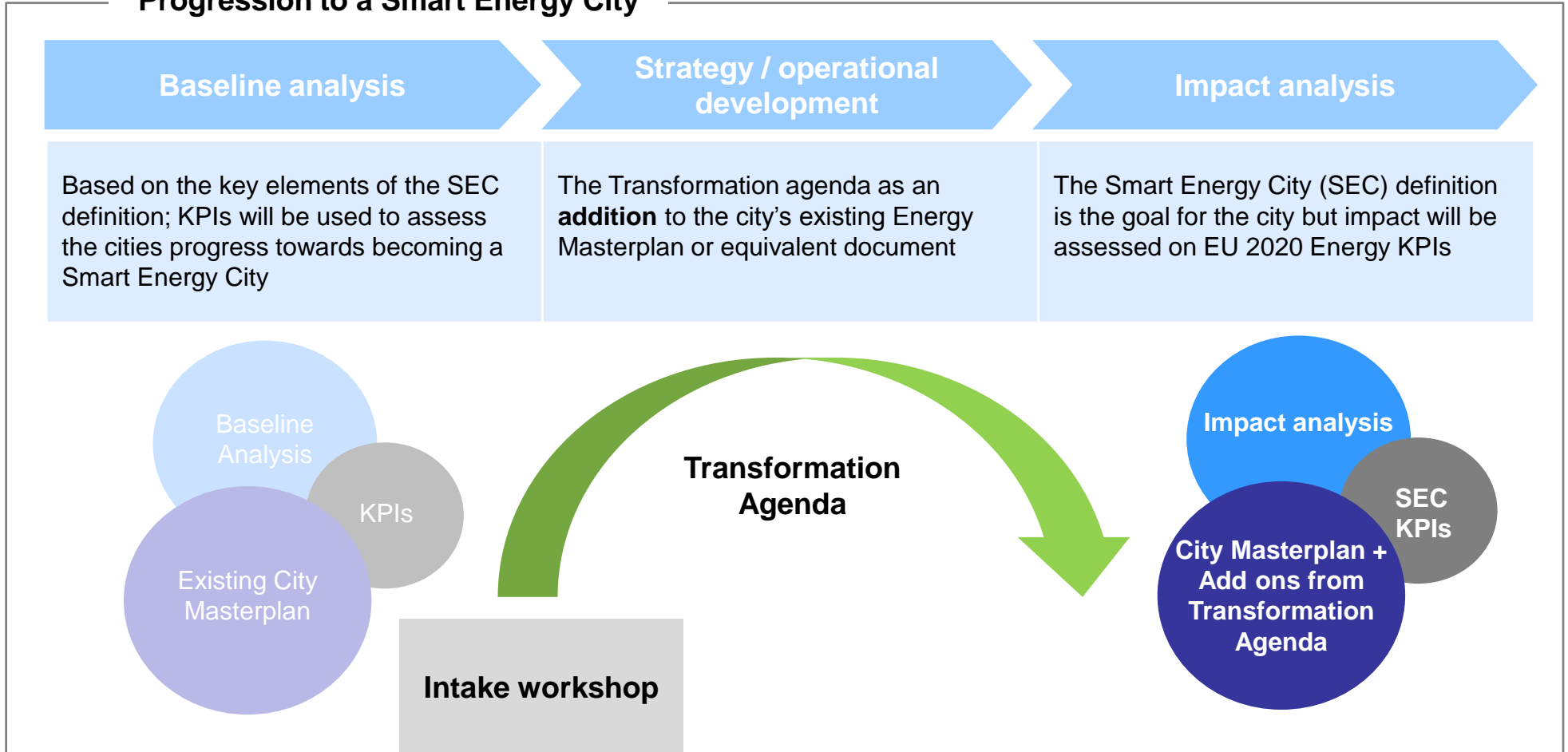
Visual representation of the Smart Energy City definition

Smart projects	Energy city objectives	Sustainable city objectives
Integrated and resilient resource system / Insight-driven and innovative approaches to strategic planning	*Relies on…*	Supports the needs and interests of its users: Liveable
Information Communication Technology	**Smart Energy City:** energy and resource efficient Increasingly powered by renewable energy sources	Affordable Climate-friendly Engaging environment
	Means to meet → *Provides* → *users…*	Sustainable Economy

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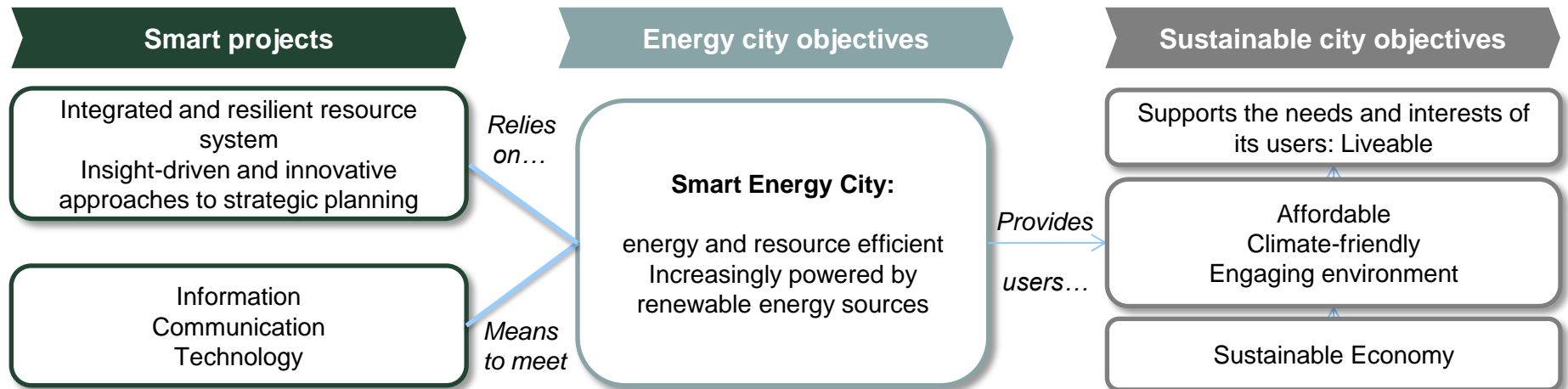
Transformation to a Smart Energy City

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

Progression to a Smart Energy City

Baseline analysis	Strategy / operational development	Impact analysis
Based on the key elements of the SEC definition; KPIs will be used to assess the cities progress towards becoming a Smart Energy City	The Transformation agenda as an **addition** to the city's existing Energy Masterplan or equivalent document	The Smart Energy City (SEC) definition is the goal for the city but impact will be assessed on EU 2020 Energy KPIs

Baseline Analysis

KPIs

Existing City Masterplan

Transformation Agenda

Intake workshop

Impact analysis

SEC KPIs

City Masterplan + Add ons from Transformation Agenda

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Introduction to the Transformation Agenda

The main outcome of the workshop will 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

Smart City / climate action plan/

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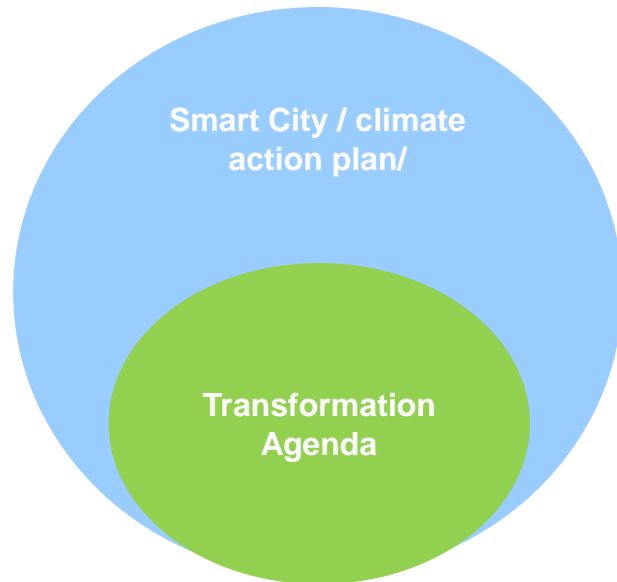
The outcomes of the intake workshop should help the city with:

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:

Per city focus on key intervention themes

In scope

Out of scope

Coordinated action around themes

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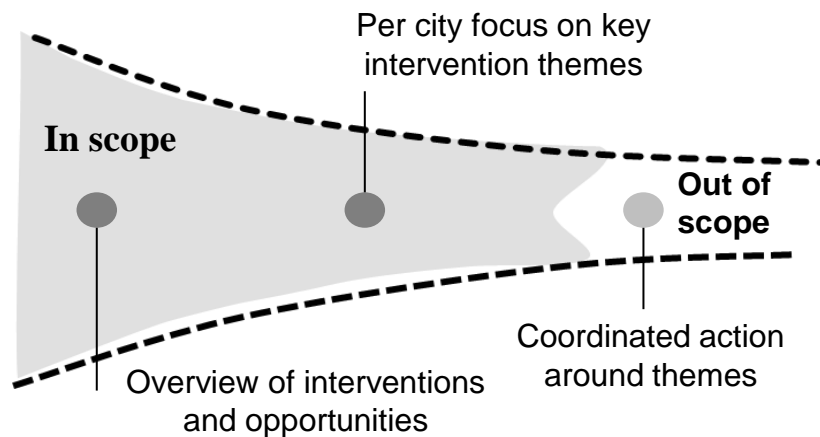
- The Intake workshop is the first step in the development of a TA
- The output of the intake workshop will be used to drive coordinated action with stakeholders

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

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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

City input for key questions

<<Input based on city situation>>

<<Input based on city situation>>

Illustrative

Energy
Masterplan

Key Themes

Enablers

Stakeholders

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Introduction to the Transformation Agenda

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(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.

½ day	6-8 weeks	2 days
1. Kick off call	**2. City Preparation**	**3. Intake Workshop**

80+ Key Themes   10 Key Themes   3-5 Key Themes
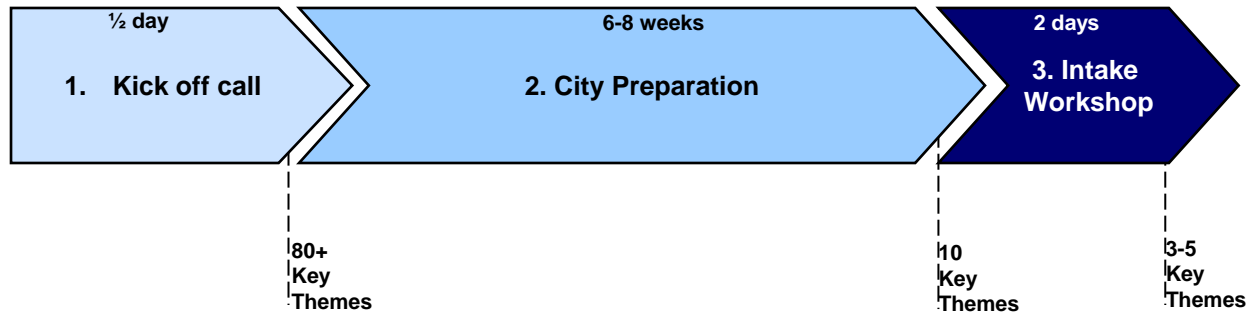
1. Kick off call

- 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?

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Kick-off call

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?

City Preparation part 1

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

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

City preparation part 2

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

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

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

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

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

Transport

Cities emit over 300 million Tonnes of CO_2 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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Key elements of the Smart Energy City

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

| Themes / Enabling Themes | Impact: main KPI's | & values | Ability to implement (PESTLEGS) |

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

Column headers: Category | Measure | CO2 | % RES | %EE | City sustainability (economy, society, environment) | (P) Political involvement | (E) Financial feasability | Market Development | (S) Stakeholder engagement | (T) Technological enablers (ICT) | (L) Legislation | (E) Environmental | (G) Governance) | (S) Spatial opportunities

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City preparation part 3

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

City

1. City provides list of themes across all six categories that they wish to explore

3. City finalizes set of measures and analysis of impact

WP1

2. WP 1 provides feedback on impact of measures & ability to implement based on baseline questionnaire and KPI document
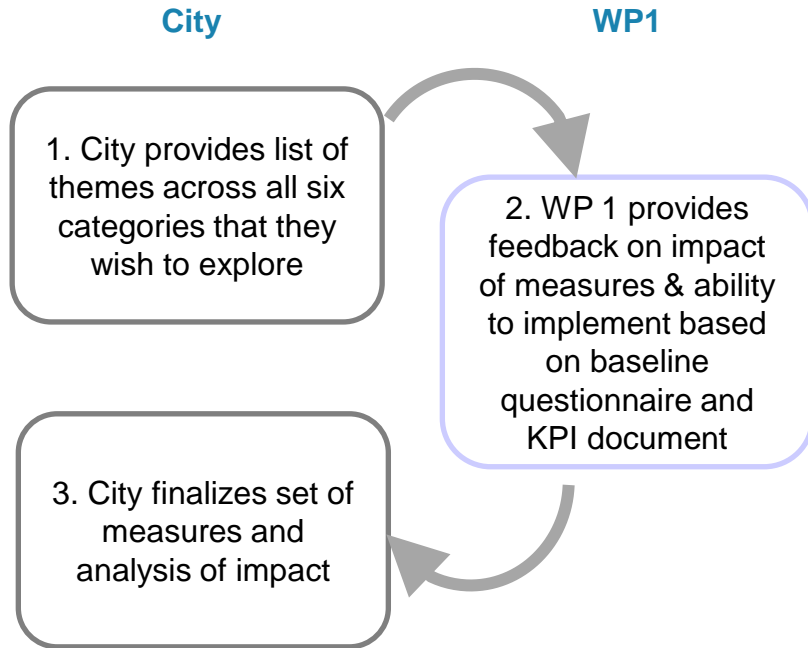
Expected outputs and inputs

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

Themes — **Impact** — **Ability to implement**

Inputs:

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

Inputs:

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

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Workshop workflow

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	**Presentation Facilitator WP1** o Introduce TRANSFORM project & individual intro's o Present Baseline report / KPIs and SEC definition	Set expectations & explain TRANSFORM goals
2. Themes and objectives	**Presentation City Coordinator** o The generic framework for the TA, Focus Areas o Presenting the list of Tier II themes considered	Understanding how TRANSFORM can help to achieve goals of the city
3. Plotting the themes	**Plenary exercise: Plotting the themes** o Plotting themes :cost effectiveness versus ability to implement o Group discussion to select main themes to SWOT	Initial analysis of what themes face the largest challenges
4. SWOT	**Group exercise (per Energy theme)** o Discuss SWOT per theme with post-it notes	Consensus on the strengths, weaknesses, opportunity and threats
5. Discussion	**Synthesis and plenary discussion** o Designated group leader presents SWOT o Discussion around linkages and combined opportunities	Overall consensus on main barriers and identify linkages between themes
6. Enabling environment	**Group exercise (per Cross-cutting theme)** o Formulation of hypothesis to increase ability to implement o Discuss governance issues regarding implementation	Identify clear mandate for qualitative decision support: e.g. finance, governance etc
7. Wrap-up	**Presentation WP2** o Wrap-up from TRANSFORM team. o What to expect in the next year and a half of the programme	Clear expectation setting for stakeholders and TRANSFORM for next steps

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- Introduction to the Transformation Agenda

- Objectives of the Transformation Agenda

- Workflow of the Intake workshop

- **(SWOT) Methodologies**

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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'

Intake workshop- SWOT analysis

SWOT Energy — Energy infrastructure | Heat and power supply | Etc.

SWOT Buildings — Energy efficiency | Financial incentives | Etc.

SWOT Mobility — Cycling/pedestrian provision | Public transport | Etc.

Internal — Strengths and weaknesses

External — Opportunities and threats

Political / Economic / Social / Technological / Legal / Environmental

Strengths | Weaknesses
Opportunities | Threats

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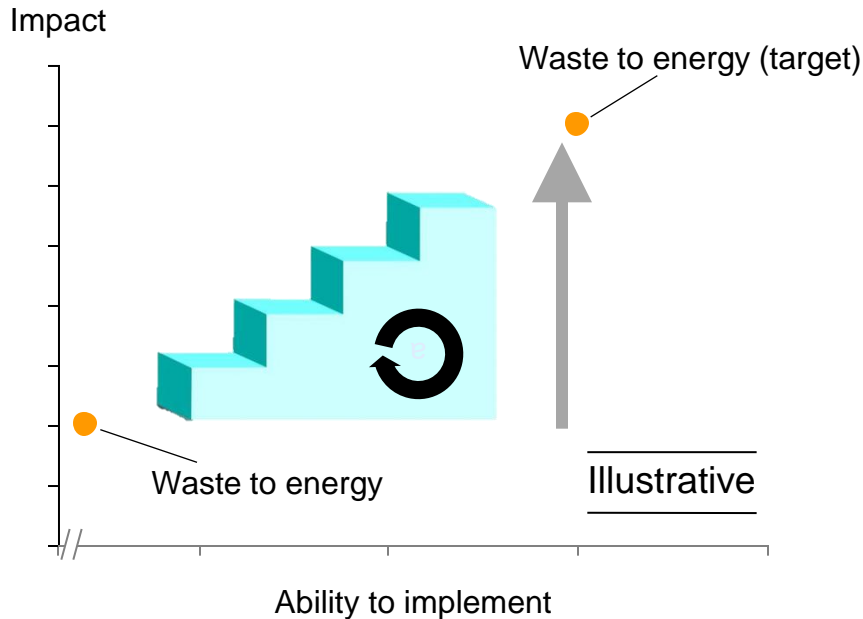
The scope of the themes will be set around expected impact, interventions and interdependencies with enabling factors

Example: Waste to energy

Impact

Waste to energy (target)

Waste to energy

Illustrative

Ability to implement

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

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Appendix:

Background on SEC definition

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):

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:

Smart projects	Energy city objectives	Sustainable city objectives

Integrated and resilient resource system
Insight-driven and innovative approaches to strategic planning

Relies on…

Information Communication Technology

Means to meet

Smart Energy City:

energy and resource efficient
Increasingly powered by renewable energy sources

Provides

users…

Supports the needs and interests of its users: Liveable

Affordable, climate-friendly, engaging environment

Sustainable Economy

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