INNOVATIVE

CITY-

BUSINESS COLLABORATION

Urban Infrastructure Initiative – Framework
for city-business collaboration

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ABSTRACT

Conducted between 2010 and 2014, the WBCSD Urban infrastructure Initiative (UII) was an innovative global project that contributed to setting the framework for city-business collaboration at the early planning stage and demonstrated the role of business as a strategic partner to help cities turn their ambitious sustainability visions into reality.

This multi-sector collaboration between 14 leading global companies worked with 10 cities around the world using a structured engagement process. Bridging organizations played an important role in facilitating the development of a relationship between the UII teams and the cities, especially in early discussions to identify the scope of engagement and the urban challenges to be addressed. The UII teams then conducted transformation assessments to create "solutions landscape" reports for the cities with integrated, cross-sector solution recommendations.

An important outcome of this major initiative suggests that all cities seeking to realize their sustainability objectives can benefit substantially from engaging with business early in the planning and strategy development process. Another important observation from the overall evaluation is that global companies can bring a wealth of experience and knowledge of what works from their global operations, to which even cities in highly developed economies do not always have access.

CONTEXT

The WBCSD established the UII to showcase a new model of strategic engagement between cities and business early in the planning process.

Cities are at the leading edge of the global sustainability agenda. By 2050, 70% of the world's population will live in cities—this is where the battle for a sustainable future for humanity will be won or lost. Cities around the world are rising to this challenge by pursuing ambitious objectives that will make them more competitive, resource efficient, resilient and inclusive.

Realizing their sustainability visions in practice is a complex challenge for city leaders. It typically necessitates major transformations in the design, construction and operation of a city's infrastructure systems—including buildings, energy, mobility, telecommunications, water, sanitation and waste management services—and optimizing the linkages between these systems.

Businesses that are committed to sustainability and experienced in delivering effective solutions can help cities navigate these challenges, contributing to the strategy as well as providing specific infrastructure, technology, services and financing solutions.

Cities have long sourced solutions and services from the private sector and have engaged businesses to design, build, operate and maintain major infrastructure. However, under this traditional model, businesses are generally involved late in the city's planning/implementation life cycle, with limited opportunities to provide strategic input.

OBJECTIVES

The UII was established to demonstrate the valuable role that business can play in supporting cities in turning their sustainability vision into a practical, cost-effective action plan through early engagement in the strategy and planning process. The initiative developed an innovative engagement platform to mobilize multi-company, multi-sector expertise. The aim was to work collaboratively with cities to identify a portfolio of potential solutions to holistically address the complex cross-cutting sustainability challenges cities face.

BUSINESS PARTICIPANTS

The UII brought together 14 leading member companies:

Co-Chairs
- Cemex (building materials)
- GDF SUEZ (energy and environmental services)
- Siemens (urban infrastructure)

Members
- Acciona,(renewable energy and water)
- AECOM (support services)
- AGC (materials and components)
- EDF (energy)
- Honda (motorcycle and auto manufacturing)
- Nissan (auto manufacturing)
- Philips (healthcare, lifestyle and lighting)
- Schneider Electric (energy management)
- TNT Express (goods transfer)
- Toyota (auto manufacturing)
- United Technologies (building systems and aerospace)

These companies are sustainability leaders and have a strategic interest in unlocking markets for the innovative solutions that will be essential in driving urban sustainability transformations around the world. The opportunity to align sustainability with the expansion of strategically important future markets provides a strong rationale for collaboration, even between companies that are traditionally competitors.

CITY PARTICIPANTS

The UII worked with 10 cities in different regions of the world. The partner cities were at different stages of development, offered different systems of governance, and had different urban development and sustainability challenges.

UII PARTNER CITIES

TILBURG
The Netherlands

Tilburg has a bold ambition to be climate neutral and climate resilient by 2045—zero net carbon emissions and protected against climate change effects.

PHILADELPHIA
USA

Philadelphia aims to be the greenest city in North America and has established the Greenworks Philadelphia plan focusing on energy, environment, equity, economy and engagement.

GUADALAJARA
Mexico

Guadalajara has a vision to transform the city into a modern, sustainable metropolis at the center of an integrated and rejuvenated region.

Tilburg

Philadelphia

Guadalajara

TURKU
Finland

Turku's Climate and Environment Program, launched in 2009, targets greenhouse gas (GHG) emissions per capita 30% below the 1990 level by 2020.

KOBE
Japan

Kobe has developed the Kobe Environmental Future City Initiative, which is focused on addressing major sustainability challenges including disaster resilience and a rapidly aging society. It targets GHG emissions of 25% below the 1990 level by 2020

YIXING
China

Yixing has set a clear goal to become China's "demonstration city of scientific and sustainable development" by 2020.

Turku
Kobe
Yixing
Gujarat cities

GUJARAT CITIES
India

Ahmedabad, Surat, Rajkot, Vadodara Gujarat is the only Indian state with a Climate Change Department and was the first state to announce a comprehensive solar energy policy. Cities are taking the lead: Ahmedabad's bus rapid transit system is being replicated in other Indian cities.

OTHER PARTIES/STAKEHOLDERS

The initial city selection and engagement was facilitated by "bridging organizations"—respected third-party stakeholders that have a detailed understanding of the local context. The bridging organizations were:

- ICLEI – Local Governments for Sustainability (Turku and Tilburg)
- The State Government of Gujarat (Gujarat cities)
- The China Business Council for Sustainable Development (Yixing)
- Japan Facility Solutions (Kobe)
- The Inter-American Development Bank (Guadalajara)
- The Urban Land Institute (Philadelphia).

PROCESS
AND GOVERNANCE

Collaboration governance

A detailed governance document codified the project's governance, decision-making processes, and the process for city engagements.

The agreement to partner with each city was documented in a non-legally binding memorandum of understanding (MoU) detailing the objectives, the engagement process and the scope of the engagement. The collaboration was a temporary agreement ending with the publication of a "solutions landscape" report for the city.

In common with other WBCSD projects, UII established an Assurance Group as a core element of the project's governance. It was charged with ensuring, and ultimately testifying, that the UII maintained a high level of integrity, independence and accountability. Made up of highly experienced and knowledgeable urban planning and sustainability experts, the Assurance Group was also able to offer important guidance and advice on UII design, development and implementation.

COLLABORATION PROCESS OVERVIEW

SCOPE OF COLLABORATION

The scope of the collaboration was based on the needs and challenges of each city and the expertise of UII partners.

The geographical scope of the engagement was generally defined by the administrative boundary of the partner city. However, in some instances challenges or solutions extended across these boundaries. For example, in Guadalajara the UII worked with the Municipality of Guadalajara, the central municipality of the seven that make up the broader metropolitan area of the city.

The general process for the UII city engagements consisted of five main steps:

1 Identify partner cities, working with the bridging organizations. The criteria for the selection were: an existing sustainability vision; the strong commitment of the city leadership to implement this vision; and a willingness to engage constructively with business.

2 Agree on the scope and process for engagement during initial discussions. A meeting with city leaders helped to identify the main topics to be considered by the UII and to determine the process to be followed. This discussion triggered a dialogue which led to agreement on priority issues to be addressed during the engagement.

3 Engage in dialogue with the city to put together an "issues landscape". This dialogue brought together businesses and city officials to jointly discuss the issues the city faced and the areas where businesses could best contribute to developing practical solutions. During the dialogue, the UII team gained a full understanding of the city's sustainability vision and targets and the barriers to progress. The dialogue ended with agreement on the transformation process to follow.

4 Organize a transformation assessment to create a "solutions landscape". In each city, the UII mobilized a multi-disciplinary team of company experts to work collaboratively with senior city officials. These teams took an integrated, cross-sector approach to analyzing the city's major sustainability challenges and to developing a "solutions landscape" (i.e. a portfolio of solutions) to address these challenges. The UII engagements were several steps removed from tendering and procurement processes, allowing for wide-ranging conversation with total transparency. The UII functioned like a laboratory in which cities explored and tested different options.

5 Publish a public report on the conclusions and recommendations. Individual city solution landscape reports are available at www.wbcsd.org/urban-infrastructure.aspx.

TABLE 2: OUTPUTS OF THE COLLABORATIONS WITH EXAMPLES

Business contributions to strategy development and decision-making	UII Examples

Innovative and effective solutions	• **New technologies.**
	  o Intelligent transport systems: Turku, Tilburg, Yixing, Kobe, Guadalajara, Philadelphia.
	  o Smart electrical grids and local energy management systems: Turku, Kobe, Philadelphia.
	  o Green infrastructure: Gujarat cities, Yixing, Philadelphia.
	
	• **Energy efficiency in buildings.** Improving the energy efficiency of a city's building stock was a priority issue in all 10 UII partner cities. Proposed solutions cover design and planning regulations, technology, market enhancement measures, policy incentives, consumer awareness and engagement, and innovative financing mechanisms.
	
	• **Sharing experiences from other cities.**
	  o In Tilburg and Turku the UII team was able to share the experiences of other European cities in developing green logistics schemes.
	  o In Guadalajara the UII team was able to bring knowledge of how Mexico City had established a single integrated planning regulation to facilitate the renewal of the historic city center.
	  o Solutions for wastewater management in Gujarat benefited from the team's knowledge of successful projects in Chennai and private sector involvement in natural wetland restoration in China.
	  o The Philadelphia UII team drew on the experiences of other leading US cities in defining the value of the EcoDistrict model.

Integrated approaches to addressing urban challenges	• **Urban planning.** In both Yixing and Gujarat the UII team worked with the cities to identify how enhanced urban planning approaches could help address urban infrastructure challenges in an integrated manner. • **Integrated solution development.** In Guadalajara the UII team was able to map how solutions across four main areas—mobility and logistics, buildings and housing, security, and waste—could support and reinforce each other. In Philadelphia the UII team helped develop a package of integrated solutions using the EcoDistrict model as a platform to optimize and integrate innovative infrastructure solutions at the district level. • **Working across departments.** A key benefit of the UII engagements was the platform for promoting and supporting inter-departmental dialogue and overcoming concerns about shared functional responsibilities, duties and budgets. • **Working across municipal boundaries.** In Guadalajara the UII team explicitly identified the solutions that required cross-boundary approaches for effective action and implementation. • **Integrated assessment tools.** Working with Kobe the UII introduced the use of the CASBEE-City tool as a platform for the integrated understanding of the challenges and the evaluation of solutions.

TABLE 2: OUTPUTS OF THE COLLABORATIONS WITH EXAMPLES

Business contributions to strategy development and decision-making	UII Examples
Financing and implementation	• **Solution prioritization.** In all the UII engagements, the team assisted the city by identifying the key considerations and next steps, and developed a basic prioritization analysis of the suggested solutions landscape. • **Implementation roadmaps**. In Yixing and Guadalajara the UII teams developed high-level implementation roadmaps at the request of the cities to assist with the prioritization and sequencing of key solution proposals. • **Private finance options.** In Gujarat the UII team presented a range of potential options for the mobilization of private capital to support the implementation of proposed wastewater management solutions. In Philadelphia, the UII team made specific financing recommendations for proposed infrastructure and technology solutions. • **Market mechanisms.** A number of the UII engagements provide solutions and recommendations to create and enhance local markets for energy efficiency technologies and services. For example, in Yixing the UII proposed several market-based policies to encourage energy efficiency improvements and suggested possible financing mechanisms.
Development of the local green economy	• **Green economic development.** In Tilburg the UII made recommendations on enhancing the sustainability of the city's business parks—a central element of the local economy. In Kobe and Philadelphia the UII emphasized the opportunity for city authorities to support the local establishment and growth of green businesses by driving demand for sustainable solutions and providing opportunities for their market deployment.
Private sector sustainability leadership	• **Energy Efficiency in Buildings (EEB) Manifesto.** The UII teams in Tilburg and Kobe proposed local versions of the innovative EEB Manifesto—a set of voluntary measures to drive action on building energy efficiency that was a key outcome of the WBCSD's Energy Efficiency in Buildings Project • **City fleet management.** The UII team was able to share best practices from the private sector in improving the operational and environmental efficiency of large vehicle fleets as well as supporting the uptake of low-emissions vehicle technologies.

CITY PERSPECTIVES ON THE VALUE OF THE UII

"Our experience with the WBCSD's Urban Infrastructure Initiative has been very encouraging and has brought new solutions and cooperation possibilities to our awareness… Together with the UII partners we developed a portfolio of new actions for our sustainability program…We are now better aware of the solutions and new forms of cooperation that advanced businesses can offer. The early engagement of businesses means we are now well-placed to use this knowledge in planning our new strategies and actions. We will also look for ways to make this new approach part of our regular strategy and program process."

Jarkko Virtanen, Deputy Mayor of Turku

"[The UII engagement] reinforced our thinking that the stakeholder approach is the way to go...Working with the UII opened up an entire new network for us. Dialogue is crucial and mutual inspiration can lead to new ideas and business cases. We want to follow up and turn those business cases into local Green Deals."

Berend de Vries, Deputy Mayor of Tilburg

"I am confident that through the in-depth cooperation with WBCSD and the scientific guidance of the Yixing UII report, the city, as the 'Capital of Chinese Pottery' and 'Oriental Water City', will pragmatically take a better path towards sustainability."

Zhang Lijun, Mayor of Yixing

"The sustainability of cities cannot be achieved by isolated efforts but requires the involvement of governments, society and business. Guadalajara's transformation requires a modern and sustainable infrastructure program that ensures high quality of life, integrity and safety. It is with this intention that Guadalajara has developed together with the WBCSD a transformation plan for our city, with a comprehensive, modern and far-reaching vision."

Francisco Ayón López, Mayor of Guadalajara

"In order to build capacity for urban sustainability solutions and accelerate their adoption, we simply must work collaboratively. Cities need to continue to share best practices with one another while also problem solving alongside our partners in the private sector who share many of our goals. The Urban Infrastructure Initiative engagement allowed us to do just this…We came away with new ideas, benefitted from technical expertise, and gained meaningful external validation."

Michael A Nutter, Mayor of Philadelphia

OUTCOMES

Outputs

The immediate output of each city engagement was the solutions landscape report. Each report is publically available and is summarized in the Final Report of the UII. Table 2 presents an overall analysis of the UII engagements and the resulting solutions and summarizes specific examples of how the UII engagements added value to partner cities.

Longer term impacts

In the longer term, the value of these contributions will be measured by how these business inputs help cities accelerate progress toward their sustainability vision. It is too early to evaluate this long term impact, but both Turku and Yixing are conducting a detailed assessment of mobility options. The city of Yixing has also been chosen in December 2014 as one of the Sino-German Low Carbon Ecological Pilot Demonstration Cities. The city of Tilburg has expanded its use of the UII dialogue model to enhance the effectiveness of sustainability planning processes. The City of Philadelphia is drawing on the UII's recommendations to improve the efficiency of its vehicle fleet and to strengthen the administration's ability to advance progress toward their municipal building energy use reduction target.

Performance against objectives

The most important measure of performance is city leaders' perception of the value of the collaboration.

The UII also met its objective of developing an evidence base demonstrating that the early strategic involvement of business can be of real benefit to city administrations aiming to advance sustainability.

More broadly, the UII demonstrated the willingness and capabilities of leading businesses to be strategic partners in advancing the urban sustainability agenda. It showed that business has a detailed understanding of the challenges and constraints that cities face in pursuing their sustainability agenda and that business can be a valuable contributor in helping cities find solutions to overcome these challenges— particularly when involved early in the planning process.

Future or additional collaboration

The WBCSD's new Zero Emissions Cities project will build on the success of the WBCSD's Urban Infrastructure Initiative. Using a similar engagement model, it aims to catalyze global action to create low-carbon cities. It will work with city governments and other key stakeholders to help develop roadmaps to transform city energy systems towards zero emissions and then identify opportunities to drive implementation. The goal of the project is to use this innovative partnership model to work with at least 20 cities by 2020.

ANALYSIS

INNOVATION

The UII developed and tested an innovative new approach for dialogue and collaborative engagement between cities and business early in the sustainability planning process. This approach was applied in a number of different countries/regions around the world, confirming its applicability in a range of economic, political, social and cultural contexts.

The UII made an important contribution in pioneering how to bring together city sustainability leadership and business innovation to drive rapid transformation towards sustainable development.

SUCCESS FACTORS AND OVERCOMING CHALLENGES

The UII project identified several factors that support effective dialogue and collaboration between cities and business:

- **Support and involvement of the city leadership.** The support and involvement of the mayor in UII engagement was an essential ingredient for success. It sent a clear signal of its importance and value. It also provided a mandate for the participation of other senior civic leaders, managers of key departments within the administration, as well as other senior planning, technical and sustainability professionals.

- **Effective exchange between experts.** A unique characteristic of the UII approach was the opportunity for city experts and company team members to have broad-based interactions in their areas of expertise, sharing ideas and insights. These two-way exchanges were central to the effectiveness of the UII dialogues.

- **Local, national and international expertise.** While the required company expertise varied from city to city, the UII transformation teams were able to bring a mix of expertise. This ensured a detailed understanding of the local context while also providing best practices from other cities in the same country or internationally.

- **Bridging organizations.** Bridging organizations played an important role in facilitating the development of a relationship between the UII team and the city, especially in early discussions to identify the issues landscape and the scope of UII engagement.

LESSONS LEARNED

The UII project experience resulted in numerous general lessons.

1 There are several barriers to city-business engagement and the UII project has shown how these can be overcome:

- Lack of awareness of the potential business contribution—Cities are often unaware of the constructive role that business can play and/or the value business can bring to their strategic planning processes.

- Perception of biased input—City officials may not have full confidence that business representatives will give input that is in the city's best interests and assume that they will use engagement only as means to pursue their own commercial interests.

- Lack of suitable engagement processes—Cities may not have processes that enable strategic engagement with business early in the planning cycle, or they may be unsure of how such a process could be established or integrated into existing regulations or stakeholder engagement and planning processes.

- Regulatory-related constraints—Regulations, especially those relating to public procurement, can limit interactions between cities and the private sector. Such regulations are intended to ensure the integrity and effectiveness of public procurement and planning processes. However, they may have the unintended consequence of losing valuable input from business that could benefit the city and its citizens.

2 The UII process is flexible and broadly applicable. It was able to generate value for a diverse range of cities around the world with different economic, political, social and cultural contexts. These cities also spanned a broad range of sizes—with populations from 180,000 to more than 5 million. This suggests the broad applicability of this approach.

3 The UII process is applicable to a range of city strategy and planning activities. The UII engaged with cities on a range of strategies, programs and initiatives that supported their overall sustainability vision. This experience indicates that early strategic engagement with business could make a beneficial contribution to a variety of city strategy and planning activities.

Company participants also learned valuable lessons:

- Cities face serious resource and capacity constraints that are different to those experienced by businesses.
- City processes and decision-making are made complex by political priorities and considerations.
- Urban sustainability challenges cut across departments and technical functions.
- Collaborating with colleagues from different sectors and different professional backgrounds provides new insights about technologies and industries.

The lessons learned led to the following recommendations for the primary stakeholders on how to promote or encourage early engagement between cities and business on sustainable development.

CITIES TO

1   Work with business as a key stakeholder in sustainability strategy development.

2   Develop or enhance stakeholder engagement and consultation processes to leverage the value of working collaboratively with business.

3   Clarify the scope for early business engagement in sustainability strategy development under local regulatory frameworks and consider removing the barriers to business engagement that are not in the public interest.

4   Create or strengthen cross-departmental coordination to enable integrated solutions to urban sustainability challenges.

BUSINESSES TO

5   Pursue opportunities for sustainability strategy partnership with cities.

6   Collaborate with other businesses and professional experts on urban sustainability strategy development.

INTERNATIONAL ORGANIZATIONS, NON-GOVERNMENTAL ORGANIZATIONS (NGOS) AND URBAN PROFESSIONAL ASSOCIATIONS TO

7   Support and facilitate strategic engagement between cities and business as an effective tool to drive urban sustainability.
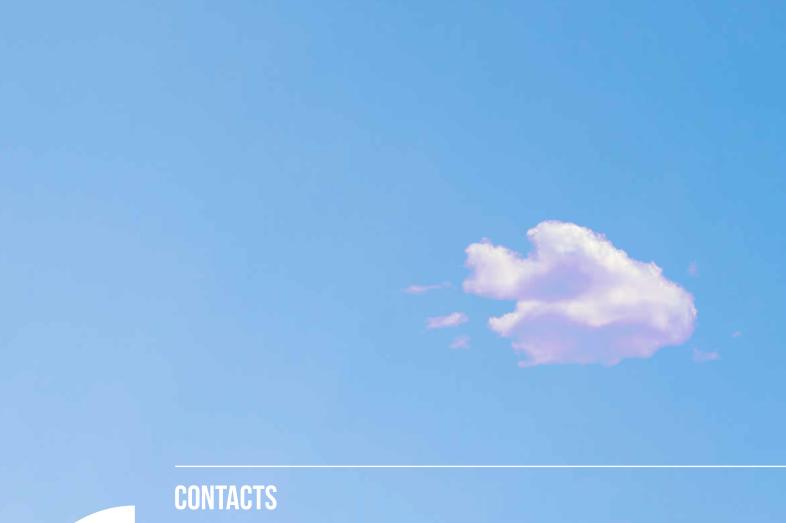
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IMPRESSUM

About the WBCSD

The World Business Council for Sustainable Development (WBCSD), a CEO-led organization of some 200 forward-thinking global companies, is committed to galvanizing the global business community to create a sustainable future for business, society and the environment. Together with its members, the council applies its respected thought leadership and effective advocacy to generate constructive solutions and take shared action. Leveraging its strong relationships with stakeholders as the leading advocate for business, the council helps drive debate and policy change in favor of sustainable development solutions.

The WBCSD provides a forum for its member companies - who represent all business sectors, all continents and a combined revenue of more than $8.5 trillion, 19 million employees - to share best practices on sustainable development issues and to develop innovative tools that change the status quo. The council also benefits from a network of 70 national and regional business councils and partner organizations, a majority of which are based in developing countries.

About ICLEI

ICLEI - Local Governments for Sustainability is the world's leading network of over 1,000 cities, towns and metropolises committed to building a sustainable future. By helping our Members to make their cities sustainable, low-carbon, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, we impact over 20% of the world's urban population.

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