



Handbook


on communication
and engagement
for solid waste
management



**CLIMATE &
CLEAN AIR
COALITION**
TO REDUCE SHORT-LIVED
CLIMATE POLLUTANTS

Introduction





This handbook is part of the scope for the technical assistance project for solid waste management in Curitiba/Brazil. The project is carried out by ABRELPE, the Brazilian Association of Public Cleansing and Waste Management Companies, with the financial resources by the Climate and Clean Air Coalition through the Municipal Solid Waste Initiative. This is one of the outcomes from project activity 2 – “Enhancement of Communication and Awareness Actions on Municipal Solid Waste (MSW) Management Towards Mitigation of SLCP¹ Emissions”. Among other inspirations, this handbook is based on the presentations from the workshop on "New Communication Practices for Municipal Solid Waste Management", which is also an outcome from project Activity 2. The workshop gathered experts and government officials from municipal, national and international levels that work with communication for MSW management.

This handbook aims to provide municipal managers with considerations, concepts and state-of-the-art tools to engage their citizens and other actors to fulfill their responsibilities within MSW management, from ethical consumption to a better destination of MSW.

Our work is based on the belief that messages are not enough if we want to transform consumption and disposal behaviors. This vertical communication model is not able to promote the necessary engagement to reach the target of changing our relationship with waste. It is necessary to have a horizontal approach to communication, and to process of creating solutions, calling the society to work together, and letting them to take part in the problem and its solutions.


Towards this target, this handbook starts with a brief overview of the cultural evolution of waste over the past decades, and goes on with insights about the role that communication plays in this process. Later on, the handbook presents a set of best practices to make a strategic development of communication projects, as well as innovative and state-of-the-art tools that can be used to raise the level of engagement of society with this matter.

People are behind waste. With people, we will build new cities.

¹Short-Lived Climate Pollutants (SLCP), for example methane and black carbon, which contribute to climate change

Summary






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Cultural Evolution of Waste: An Overview





In the early 1990s, when waste management was still a subject far away from the overall urban population, the ECO92² summit highlighted the need to recycle, a term that was just starting a long journey to become well-known and understood. The challenge was to introduce the subject, along with a new behavior.

Almost thirty years later, “recycling” is a term quite widespread among society, thanks to diffuse initiatives from education, media, public authorities, private sector, and civil society itself. During these years, efforts were made to give a proper destination to other categories of waste, such as e-waste – which has grown dramatically in the past 20 years – and organic waste, which is an extremely representative fraction of total MSW, but yet little recognized by citizens, with few options of municipal services and solutions for them. Composting, one of the ways of processing organic waste, is probably at the same stage in which recycling was 30 years ago – a little explored concept with a strange name, but with potential (and need) to become an instinctive practice.

During this same period, the environmental issue as a broad concept gained prominence, and inspired contemporary initiatives – from fashion and lifestyle to technology and cause marketing. Organic food has set a new ideal food pattern, while the very urban life standards have been reimagined with new experiences such as urban agriculture, thrift stores and barter fairs, local/ethical consumption, among others, primarily by the action of young people that were educated under the values of collaboration and sustainability, and were intensely pressured to show their identity and expression.

Today’s environmental issue is much more than “saving the planet”. In fact, it involves values and practices that build up contemporary life – although there is always a long distance between values and practices. Climate change demands a behavioral transformation that does not relate only to restrictions and efforts, but also to lifestyles that have been increasingly appreciated among urban societies, such as organic food, circular economy, DIY, community spirit, and even aspects like clean mobility, health, wellness and education. These features are highly strategic to the engagement of citizens in public policies on waste.

With regard to MSW, we need to advance from the “save the planet” approach, which reminds of everything that has been already damaged by human action and brings the notion of guilt and sadness, to a “smart cities” approach, which suggests future and optimism, and is in line with the new urban experiences cited above. This smart-city perspective is not only based on the structural/technologic feature, but especially in the way how citizens live in, and build, this particular city.

²The United Nation Conference on Environment and Development, also known as Rio Earth Summit 1992.

Solid **Waste**



Organic **Food**



**Health and
Wellness**



**Kids and
Education**



DIY and Makers



Cradle-to-Cradle



Eating **Local**



Urban **Agriculture**





Under this vision, autonomy, creativity and participation of civil society are as important as the offered framework.

Furthermore, the notion of “shared responsibilities” puts the citizen in a different position than before, since the generator (i.e., the industry or consumer) is also responsible for the waste. His/her participation becomes active, minimizing the voluntary approach and strengthening a civic practice position.

To municipalities, the work to deviate waste from landfills should be based on at least four assumptions: **1.** Provide a broad framework for the most diverse types of waste; **2.** Example, leading by example with the proper disposal/treatment of public waste; **3.** Practical proposals that offer not only exciting messages, but also means for citizens to take action; and **4.** Citizen protagonism for mobilization and creation of solutions.

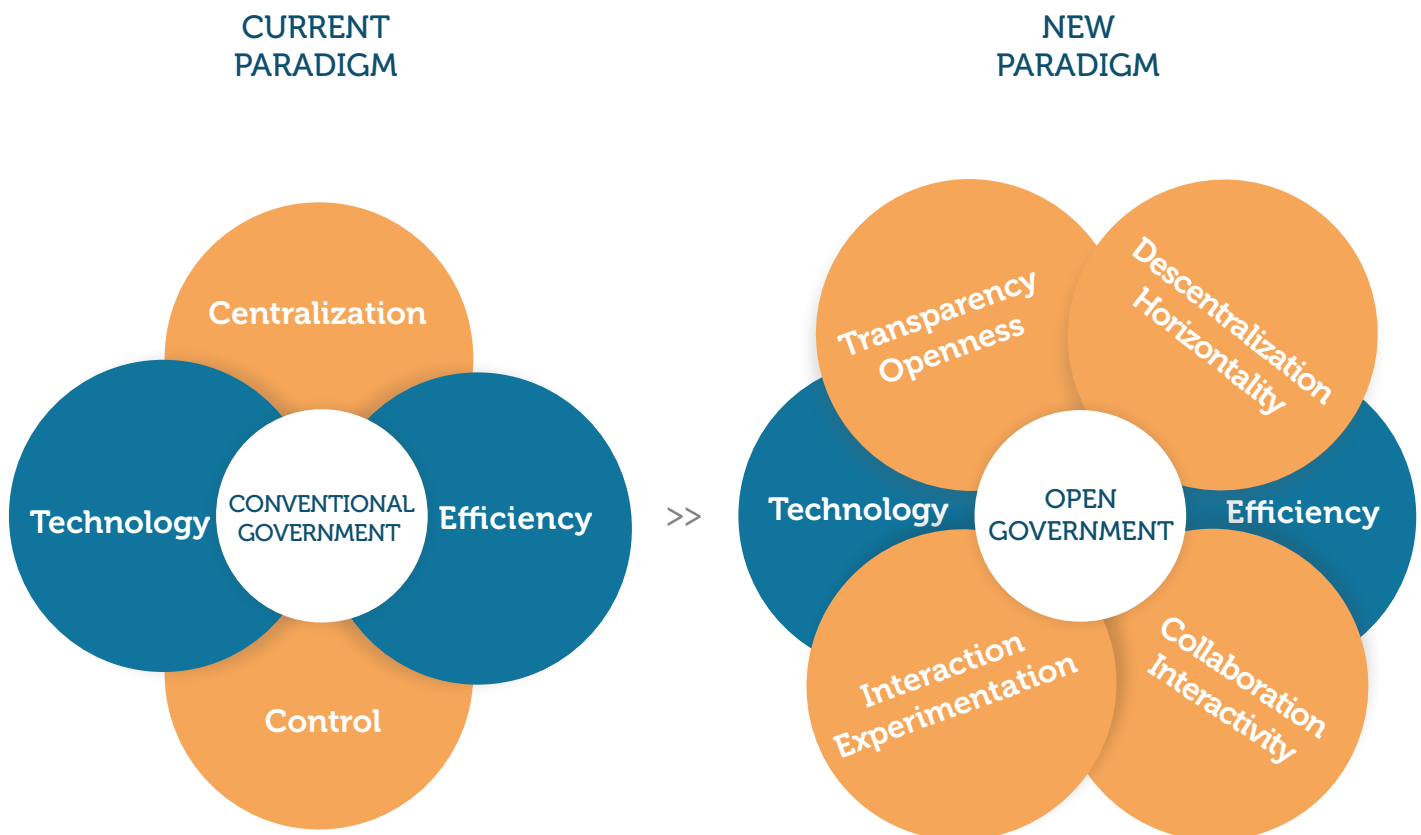
Regarding this last aspect, we bring some reflections in the next segment.

Social Communication in the 21st Century



Thomas Kuhn’s scientific thought also applies to Public Management: the difference between EVOLUTION and REVOLUTION is that Evolution relates to the advances within a known framework, and Revolution sets up a NEW PARADIGM.

We are living under a revolution in public management. We left a conventional government³ logic and went to an open-government logic, where society does not only DEMANDS solutions, but PROVIDES them.



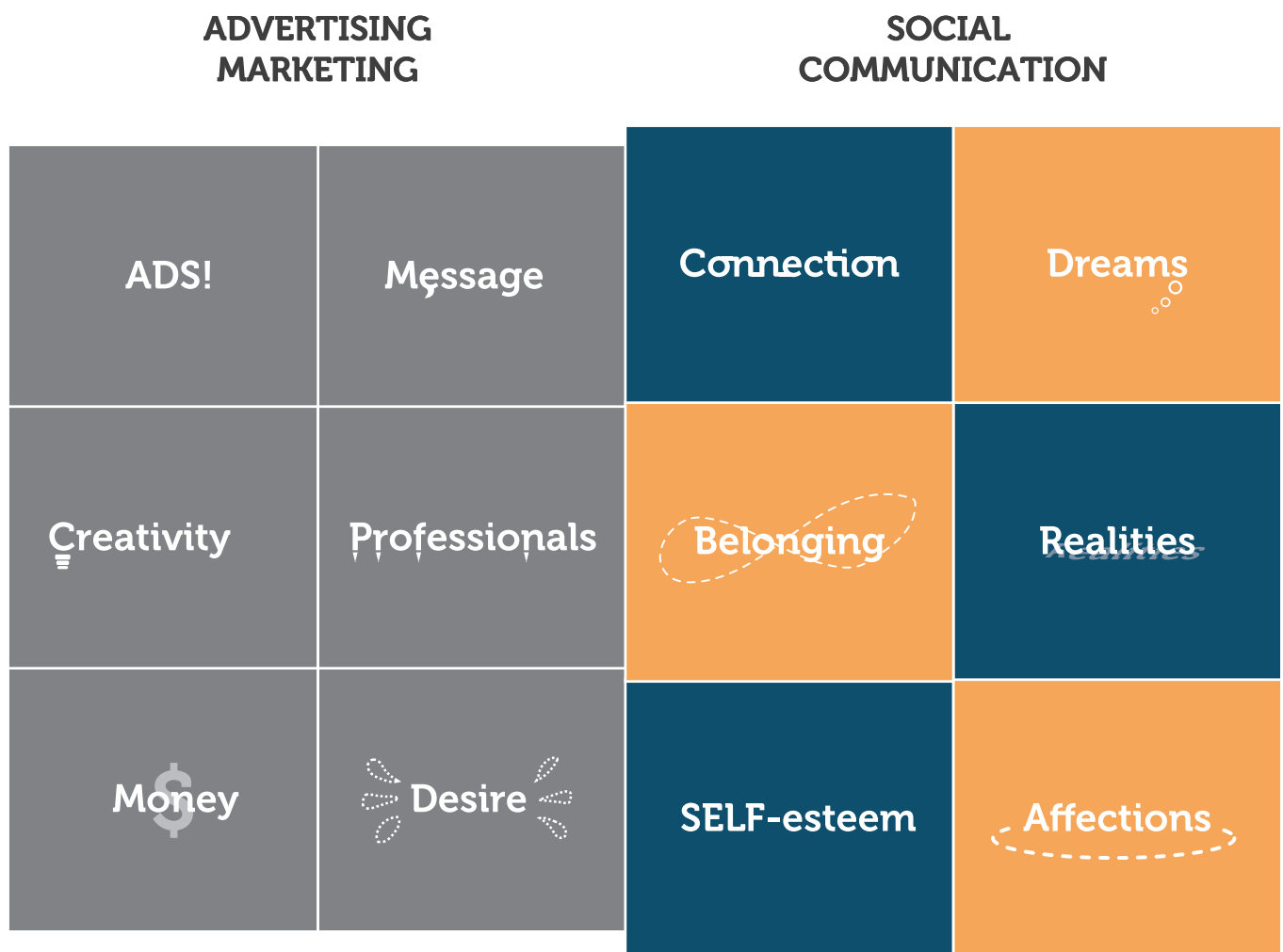
The Open Government concept is not only about transparency – which is really a critical element. Open Government is a management view that recognizes SOCIETY as the bearer of solutions for the most diverse challenges. Thus, Open Government proposes a model that

³ In this format, the government provides solutions to the city, while in open government, citizens also collaborate to create solutions.

intends to integrate features such as experimentation and collaboration to solve public issues, and puts citizens and society not only as beneficiaries of an action, but also co-authors of it.

This philosophy has been applied since the early 2000s, especially in the field of technology solutions. The clearest, most emblematic example is WAZE, a mobile app that takes data from users to make an overview of a city's traffic in a more precise and efficient way than public central systems. Many other examples in this field have shown that civil society's mass intelligence is much more capable of providing innovative, replicable, and customizable solutions.

However, technology is not the only field where decentralization and intelligence show their value. Public communication has also undergone a revolution of its own. Over the last 50 years, social communication has been referenced (and seized) under the concepts of Advertising and Marketing. Nevertheless, social communication is not only about speaking (producing messages) – it is also about listening, discussing, and learning.



For most of the management matters, talk with society is based on government-led campaigns. Big investment in communication really brought much success in the past. However, with today's global increase in content production, sole communication campaign strategies became little efficient to change behaviors and meet targets. Information or inspirational messages are not enough anymore. It is necessary to engage people and let them take over the problem, the targets, and the solutions. Particularly in regard to behavioral transformation on waste production and disposal, and mainly in regard to a daily, private practice that involves intimate consumption choices – that is, with identity and expression. This poses a challenge to find ways of doing public policies and actions not only FOR people, but WITH people.

IT'S TIME TO MAKE


PUBLIC POLICIES

~~FOR~~ WITH

PEOPLE

Best Practices of Communication and Engagement





Social mobilization for the transformation of civic behaviors relies on multiple other tools that go beyond direct, inspirational or informative communication. The prominence of citizens (and groups) to produce solutions is a content that also impacts depth, capillarity, and generation of engagement. This prominence needs to be stimulated, mapped, valued and strategically used. The following are some best practices to set up mobilization strategies on waste.

Mapping stakeholders

Know the local players that already develop their work with solid waste, such as NGOs, collectives, artists, communities, and associations. Mapping stakeholders and their actions can be useful to develop efforts, as well as have an in-depth knowledge of the cultural features of a certain community, and innovative solutions.

Setting up allies

Starting from the “mass interest” assumption, every public project has its natural allies: from those who have already been working with the subject, to those who have access to and knowledge of the target audience. By considering this it is important to recognize which local allies can echo the efforts. Educators, wastepickers, businesspeople, scholars, self-managed groups; all these are examples that must be attracted.

Communicating through example

Generally speaking, one of the most effective ways of communication is through example – using practice to instruct and raise awareness. Thus, one of the most powerful ways to raise awareness and engage citizens into best waste disposal practices is by means of effective work with the waste produced by the municipality. It is important that a citizen who goes into public places and facilities such as parks, schools and hospitals realize that the City Authorities are really making their effort by putting into practice what they expect from citizens, that is, the correct segregation and disposal of waste.

Sharing problems, targets, solutions

Public communication has a bias to focus on what has already been done, emphasizing qualities and actions of the administrators. With this, they do not explore the concept of the imaginary, of things that are yet to be done, and they usually prevent the citizens from having a deep understanding of the problem. Sharing current deficiencies, needs, and capacities, as well as the long-term targets, in a transparent way, has great importance in the public talk and can result in a better participation of the citizens in order to create solutions.

Being the first follower

The first follower is the one who recognizes the value of an initiative and gives it support to grow. We are taught from early age that we need to lead movements to create transformation in society, which is effectively a way. But when it comes to municipalities acting on waste, we can also be the first follower of initiatives that have already been created. This means to recognize the proposed solution, give it visibility, and perhaps resources in order to make it grow. The commitment must be with the target, rather than leadership.

Citizen Protagonism

Today's people have their online profiles and there is a massive sharing of ideas and everyday actions – I am what I do (or post). This is why we need to recognize the importance of the citizens' self-expression on public actions and affairs, as well as create mechanisms that give people a personal benefit from being part of these actions. To recognize and amplify the people's voices, and let them express themselves and take over the action, can play an important role in engagement and adherence.

We do not need everyone. We need who really cares

We need to understand that waste generation and disposal are cultural affairs, with habits that have been built over many years. Making a cultural transformation demands recreating culture. This takes time and action of society itself. Let us admit that not everyone will accept and adopt new habits immediately. Thus it is more interesting to focus on those who have some affinity with the matter, or are already willing to rethink their habits and start over new practices. Focusing on strategic audiences such as young people, educators, vegetarians, bikers, besides helping ensure success and good feedback during the pilot stage, will help build a new culture.

Welcoming voluntaries and enthusiasts

Following the path of the above, welcoming volunteers is crucial. Every city has at least some people that really care about environmental subjects (especially waste). Municipalities must create channels for talk and ways to accept people interested in understanding and exercising best practices on waste and, especially, to multiply knowledge. Preparing and supporting people that want to take action in their networks and territories is a low-cost, high-impact strategy.

Micro-targeting (audience strategies)

Action with children in schools is already a well-established practice in environmental education. However, we need to extend our mapping and strategies for diverse audiences. There are many social groups that cannot be simply defined by social and demographic features; some are defined by their attitudes. Doing a good mapping of audiences and setting up specific strategies and actions is a way of spreading actions and driving discourses. We should ask: What could drive young people to take part in this action? How will we make elderly and retired people know and participate? How retailers in a certain neighborhood contribute and participate? These questions will make us take simple but powerful directional actions.

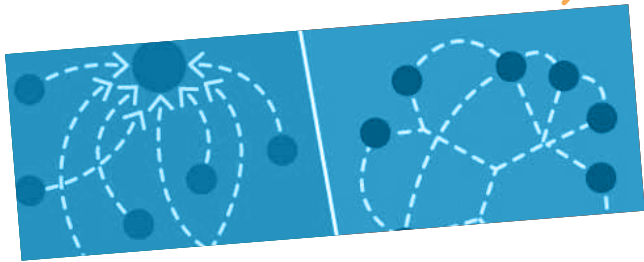
Practices and Tools

The following are some state-of-the-art tools and practices that, alone or together, can be used to play a significant role in MSW projects:

Virtual Reality

Virtual Reality (VR) is a tool that uses entertainment to bring the user to an unknown reality. VR can be used to “transport” the citizen to landfills, sorting centers, and other places related to waste management.

Example - Using VR on the Amazon:
<https://goo.gl/HfGzpj>



Crowdsourcing

Crowdsourcing relies on using collective data and intelligence, as the already-mentioned Waze app. The “Composta São Paulo” project used crowdsourcing in an interesting way, where citizens started practicing household composting and participated in a Facebook group on which project technicians, as well as more experienced users, gave the necessary support, which resulted in customized solutions.

Information design

Information design uses aesthetics and organization to present information in a more attractive, intelligible way. For example, this is crucial to make signage that will motivate segregation of waste at the source.

Example - Signmaker 2.0 of the City of San Francisco: <https://goo.gl/9pxhR5>



Open Source Logic

Open-source-logic projects give society a tool for collaboration and to enhance improvement. This logic allows replication and evolution of projects and content, and can be used to reduce public investment by means of open-source applications and free licenses.



Participation Platforms

These digital platforms are aimed at collaboration, rule enforcement, and social validation for public impact projects. They can be used to create public programs to improve disposal and treatment of waste.



Geolocation APIs

These free tools allow finding points of interest on a map, from public devices linked to environmental education and waste disposal or community initiatives on this subject.

Example - New York City tree geo-location tool:
<https://goo.gl/oukavn>



Crowdfunding

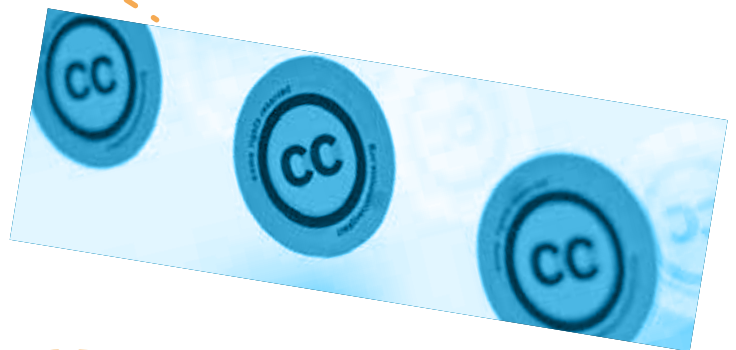
Crowdfunding is a way of funding projects through collective contribution that collects financial and human resources to carry out an initiative. One example is a Brazilian project with the public school "Diret Jamir Dagir", which promoted crowdfunding campaign to implement a pedagogical proposal that includes environmental issues and contributes to changing attitudes and behaviour, including the composting of 100% of the school's organic waste .

Learn more about this initiative:
<https://goo.gl/5v6Kki>

Creative Commons

This free license allows the use of content by other community players. Creative Commons must be set as a premise on building any public content on waste and urban sustainability so that other institutions can use it and help spreading information.

Example - Composta São Paulo's small urban garden han-dbook, free-license content:
<https://goo.gl/TvpiLR>



Open Libraries

Open libraries are free digital repositories for content like videos, texts, articles, etc. They can be used to create a qualified content repertoire for people that want to be qualified and more informed on waste management.

Example - Permaculture, bio construction and sustainability library: <https://goo.gl/AVDfrL>



Bots

Bots (or robots) are software applications that run automated tasks to solve FAQs and customized questions for users. Bots can be used to answer questions from citizens about different ways of waste disposal, for example.





Hackathons

Hackathons are marathons for development of projects and applications, with the support of society. Hackathons can be used to gather community players to develop projects focused on increasing social participation in waste disposal programs and other related subjects.

Example - Example - Waste Hackathons
<https://goo.gl/cKTDGw>

Makerspace and Hacker lab

Public or private spaces that aim to drive, qualify and provide tools for people to fulfill their projects. These spaces can be great allies for the development of innovation, such as adapted household composters, garden waste crushers, and even electronic or digital devices that can be useful for better disposal and treatment of waste.

Example - Fab Foundation:
<https://goo.gl/SdasJn>



Matchfunding

This one follows the same logic of crowdfunding, but allows private companies to participate with financial support. Generally speaking, when a certain project meets its financial target, the supporting institution increases the amount by providing an equal amount. This is an interesting way to give visibility to the matter and calls other citizens to participate.

Web series

This web-based audiovisual format makes use of entertainment features to produce in-depth information and create content-based relationships. Web series allow publicizing actions from the municipality on waste management, and can raise awareness and enable people to do best practices to reduce and segregate waste.

Example - Web series "Lixo é só o começo"
[Waste is just the start]:
<https://goo.gl/6SPqWW>



Digital Communities

Digital communities are theme groups in different platforms that promote discussion and social speech. They help to encourage discussion, create solutions, and spread information.

Example - Digital community "Composta São Paulo": <https://goo.gl/hEzwS1>

Digital Influencers

Digital influencers have gathered a relevant public of their own by means of digital content channels. Usually, they focus on a specific theme – such as healthy food, sustainability, fashion, politics, etc. – and can be used to reinforce messages, spread content and, more specifically, create new languages to predefined contents.

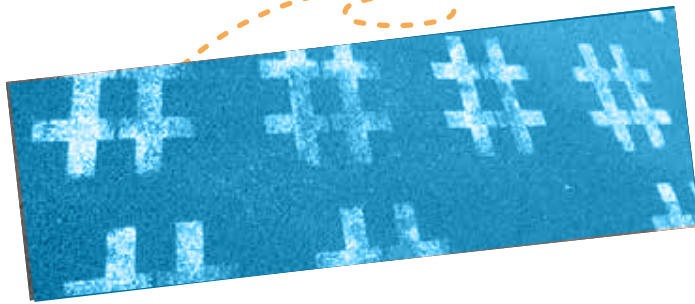
Example – "Canal da Bela": <https://goo.gl/UCEkKi>



User Content

User-generated content is created by amateur users but gains significance and high visibility when pieces of the same content are grouped together. An example of user content is hashtags (#), which organize individual content within a collective proposal. Hashtags can be used as a way to create leadership and participation in household actions towards waste (#composting, #segregateatsource).

Example – Try out #CloseDumpsites on social media



Games

People born in the 1980s – the so-called “videogame generation” – are family heads now. Similarly, games are no longer a child’s play but became part of global culture. To produce a game that teaches and encourages segregating waste at source, and make composting, among other things, is a way to draw interest to the subject.

Example – "Clean City", a game from the Municipality of Curitiba: <https://goo.gl/fqWUaM>



Gammification

Gammification is the application of the game logic to public programs and actions. Our everyday experiences gain a new meaning by means of game principles such as challenges, rewards, levels, ludic elements, and fun. This allows raising awareness and helping citizens on how to dispose of their waste, as well as to promote public dialog and visibility.

Example – An action from Volkswagen:

<https://goo.gl/2TwCQR>

Urban interventions

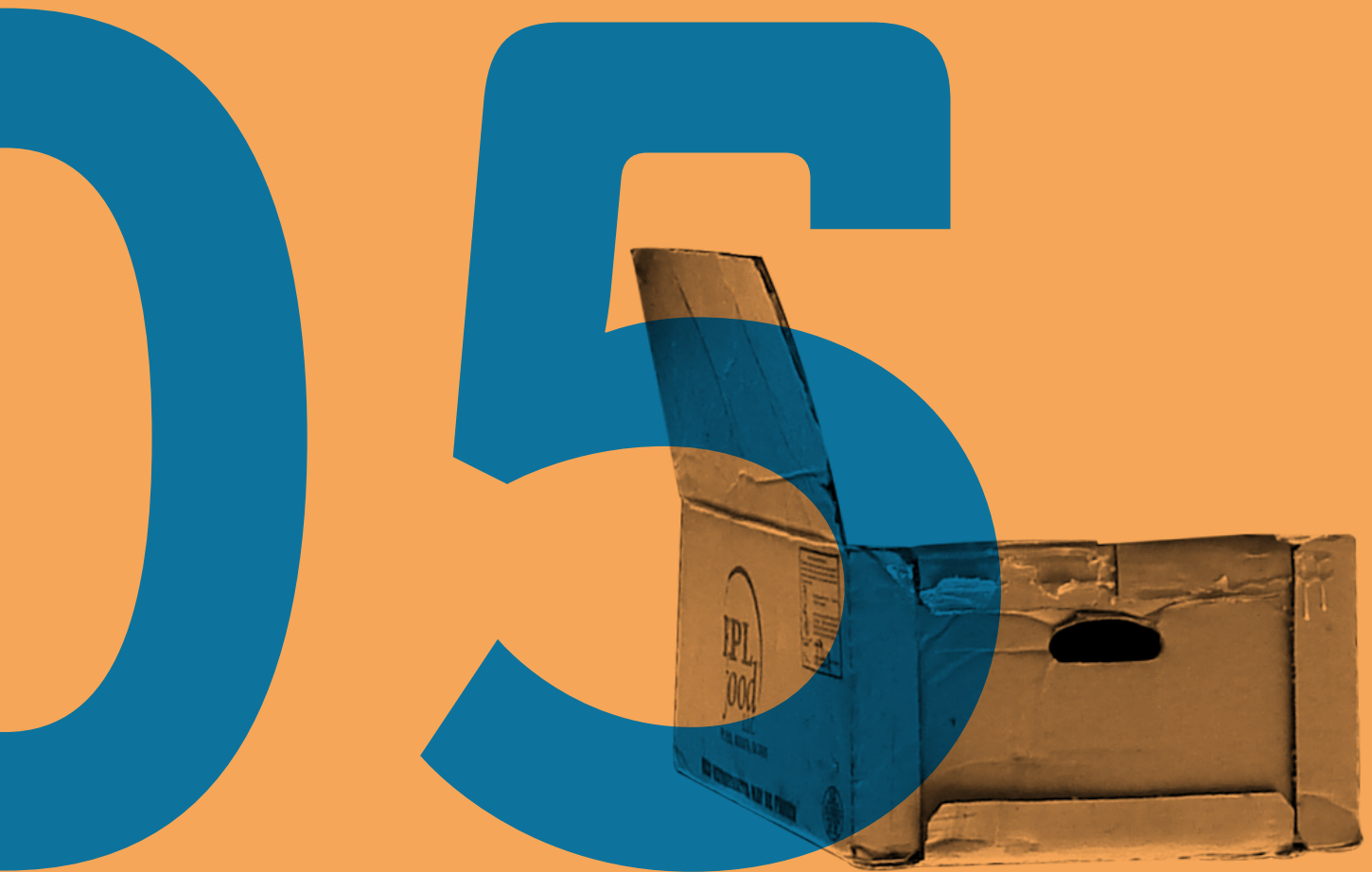
This is a broad concept that can include several actions, from physical facilities to performances such as plays and flash mobs. Buenos Aires, Argentina, gave an interesting example of urban intervention towards waste management: a big running event, with two teams – recyclables, in green, and organics, in black – starting from the same place, but following different paths, as a representation of waste separation at source.


Learn about this urban intervention:

<https://goo.gl/jzyxhy>



How to Get Started?





Now that you are aware of the challenges, opportunities and state-of-the-art tools for communication and engagement to dealing with MSW, it is time to put an experimental project into practice. See some suggestions on how to organize and plan the steps.

1 Make an inter-secretarial, multidisciplinary team

A team with people of diverse backgrounds and activities convened from the diverse municipal departments (health, education, communication, public services, etc.)

2 Know the laws and targets already applicable for waste in your municipality

Knowledge of municipal laws, regulations and targets can reveal paths, needs and opportunities for action. This knowledge is instrumental in providing legal safety, and even showing possibilities to finance the project.

3 Technical and political definition on the challenge(s) that we want to deal with

Matching the technical view on needs and available solutions with the political view on co-venants and efforts to be carried out is fundamental to align strategies and achieve success.

4 Know the municipality's action and result history

The actions history could be a good source of learning to take advantage of successful formats, but also to avoid mistakes from the past.

5 Map the local players and their action models

To build action, we must know, understand and invite people and local organizations that work with waste and urban sustainability. Experience and creativity from civil society, together with technical knowledge from public employees, are a key to a creative, efficient project.

6 Use a CANVAS to develop a project in a collaborative, organized way

CANVAS is a model that organizes ideas for business and project planning. The following canvas was especially developed to streamline processes for creating and planning MSW projects.

<p>Problem/ Opportunity</p> <p>Which problem/ opportunity we are trying to deliver?</p>	<p>Idea</p> <p>What are we proposing?</p>	<p>Targets</p> <p>What targets we intend to reach and which kind of involvement do we need to achieve them?</p>	<p>Expected behaviors</p> <p>Which behaviors do we expect to reach/ transform?</p>
<p>Participation Mechanics</p> <p>Who can participate and in which ways?</p>	<p>Communication and Relationship</p> <p>How will we communicate and relate to the participants and others involved? What channels and strategies will we use?</p>	<p>Engagement Actions</p> <p>What actions will be taken to engage and motivate people to participate to support them?</p>	<p>Messages</p> <p>What messages do we want to pass? Will we have a slogan?</p>
<p>Partners</p> <p>Who are the internal (government) and external (society) partners of the initiative? Which are the important actors to be involved?</p>	<p>Exponential Impact</p> <p>How can society collaborate by broadening the impact of action? How will we encourage and benefit from this cooperation?</p>	<p>Necessary Resources</p> <p>What resources (financial human, technological, logistical, etc.) are needed? How will we get them?</p>	<p>Goals and Metrics</p> <p>What goals do we want to achieve? How will we measure them?</p>

The CANVAS is aimed at making a visual map of the features, strategies, resources, targets, and many other relevant topics to produce a good project design. Try it out, and feel free to make changes in features, or include those features that you consider necessary for a better project planning.

7 Share it with society to find suggestions

Create "points of contact" so that people (beneficiaries or other local allies) can contribute creatively (and with resources), feel participant, and take part of the project. Also, listening and including public employees that will operate the project is a critical request. Digital platforms might be excellent points of talk. If these are not possible though, open meetings and roundtables are other efficient, low-cost tools.

8 Create participative evaluation mechanisms and be open to change strategies

Numerical targets are important to measure results. But another key need is to create ways to verify subjectivities: surprises, strengths and weaknesses, and mainly project-based opportunities. To do that, surveys, research and digital monitoring are quite valuable. Besides, the project design must allow changing paths and directions of the efforts so that they hit the most sensitive points. Planning is important, but the ability to observe and react is a critical factor that is oftentimes overlooked by municipalities.

9 Show the results and learning to the entire society

Doing accountability of results and learning from the project cannot be only for project managers. Usually these formal reports have language incomprehensible to the general public. Accountability of the project must be aimed primarily at society, in an accessible language, to invite people to debate and produce outcomes.

Acknowledgements

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Technical Profile

Design and Coordination: Brazilian Association of Public Cleaning and Waste Management Companies (ABRELPE) / secretaria@abrelpe.org.br

Founded in 1976, ABRELPE is a non-profit civil association with principles of environmental preservation and sustainable development, and its main objective is to promote the technical-operational development of the solid waste sector in Brazil. Since 2014 is an implementer of municipal and national projects of the Municipal Solid Waste Initiative of CCAC.

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Guilherme has a 15-year experience with behavior and consumption research to investigate individual and collective subjectivities that can form social habits and behaviors. Over 4 years, he has devoted himself to study and run projects that focus on transforming waste generation and disposal behaviors, acting with municipalities, the Ministry of the Environment, and private entities working on that matter. He was research, strategy, content and engagement coordinator for the “Composta São Paulo” project, Brazil’s biggest initiative on household vermicomposting.

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