MODEL

Consumeless   Consumeless

CONSUME-LESS

Consume Less in Mediterranean Touristic Communities

Guidance for implementing and monitoring the ConsumelessMed tourism model

PRIORITY AXIS 3: Protecting and promoting Mediterranean natural and cultural resources

OBJECTIVE 3.1: To enhance sustainable the development policies for more efficient valorisation of natural resources and cultural heritage in coastal and adjacent maritime areasof a sustainable and responsible coastal and maritime tourism in the MED Area

Edited by the Partner: Ambiente Italia

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This version of the guideline has been edited to develop the test phase around the pilot areas. The final version will be published at the end of this phase (summer 2018).

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1 PREFACE

This document provides a common guidance for designing a local action plan for the development of the **ConsumelessMed tourism model**, aimed at promoting a sustainable tourism in Mediterranean coastal territories.

The model is based on the qualification of the coastal territories as ConsumelessMed locations and on the enhancement of this peculiarity through an innovative communication and territorial marketing campaign, both implemented by directly involving all interested actors (local authorities, tourism operators and service providers, tourists).

The implementation approach of the model is based on 3 main principles:

1. **Integrated approach**, including multiple types of energy and water saving actions and waste prevention and management measures;

1. **Offer of consume-less services** through the active involvement of tourism service providers in the re-organization of their services, in order to offer to tourists a choice of services that will consent them to minimize water and energy consumption and waste generation and to better know and appreciate local products during their stay;

2. **Awareness raising and behavioural change** campaigns based on the use of multiple behaviour change approaches and innovative solutions including a mix of storytelling and SoLoMo (Social-Location-Mobile solutions).

The implementation strategy is characterized in particular by the introduction of the concept of a **territorial ConsumelessMed label**. The label is defined taking into account already existing experiences (at local and EU level), first of all the EU Eco-label, but finding a simplified approach that would enable even the smallest and less organized activities to become engaged in the project implementation. The ConsumelessMed label is also used to define and implement a territorial marketing strategy for promoting a sustainable tourism in the Mediterranean area.

2 THE CONCEPT OF THE CONSUMELESSMED TOURISM MODEL

The ConsumelessMed tourism model identifies a set of integrated activities that should be implemented in a Mediterranean touristic territories for increasing the sustainability of tourism. The model activities include:

1. **ConsumelessMed label**: implementation of a ConsumelessMed label by tourism service providers. The label is assigned to private or public operators (tourism service providers) which apply specific energy, water and waste sustainable management actions in their activities, offering to tourists a choice of services able to minimize the consumption of water and energy and the generation of waste and to better know and appreciate local products during their stay.

2. **ConsumelessMed demonstrative measures**: implementation, at city level, of demonstrative measures aimed at reducing water and energy consumption or waste production, by installing some visible and concrete equipment in popular public or private spaces/buildings having a high visibility for tourists. The aim of such demonstrative

measures is to communicate to tourists the commitment of the municipalities in saving water and energy and reducing waste.

3. **ConsumelessMed awareness raising campaign**: implementation of extensive awareness raising campaigns targeted to tourists, that will involve both the private facilities awarding the label (point 1) and the public sector and will include the enhancement of the demonstrative measures (point 2). The aim is to communicate to tourists how to behave in a more sustainable way, taking care of the territories they are visiting and, at the same time, promoting the local historical heritage, natural resources and products. The campaign is based on multiple behaviour change approaches, including the 'nudges, smacks, hugs and shoves' approach, the environmental marketing of the ConsumelessMed brand, as well as additional tools such as the feedbacks, norm appeals, commitments and prompts.

4. **ConsumelessMed monitoring**: implementation of a common monitoring approach in the territories implementing the model, communication of the results of all the model activities and assessment of their contribution to tourism sustainability to enhance the further implementation of the model in the Mediterranean area.

5. **ConsumelessMed marketing strategy**: implementation of an ad-hoc territorial marketing strategy aimed at enhancing the ConsumelessMed label and model implemented in the Mediterranean tourist locations. The strategy focuses on promoting the ConsumelessMed brand awareness (i.e. objective, identity, logo and main message), taking also into account the specific identity in each area (i.e. target, origin of tourists, attractive locations etc.) and the main media and physic tools (i.e. banner, postcards, stickers, video etc.).

The model activities are described in detail in the following paragraphs.

2.1 ConsumelessMed label

As previously highlighted, the label is assigned to private or public operators (tourism service providers) which apply specific energy, water and waste sustainable management actions in their activities. The ConsumelessMed label can be awarded to the following categories:

- Hotels and accommodation;
- Camping sites;
- Cafes and restaurants;
- Food and handicraft shops;
- Beach resorts.

Facilities willing to apply the ConsumelessMed label should sign a **ConsumelessMedadhesion form** including the following commitments:

- implementation of mandatory and voluntary actions aiming to reduce waste, water and energy consumption. The mandatoryactions have to be easily met by the facilities and represent the minimum requirements to guarantee an improvement in the prevention and reduction of waste, water and energy consumption. Voluntary actions are more challenging and encourages the business to constantly make an extra effort to lower the environmental costs and to reduce environmental impact in and around the company.

- the management must ensure that the employees are aware of the establishment's environmental undertakings and behave in a more sustainable way;

- implementation of communication activities: ConsumelessMed label must be displayed in a prominent place, information materials about the environmental commitment and the

ConsumelessMed initiatives must be visible and accessible for guests and published on the web.

The contents and the implementation approach of the ConsumelessMed label are described in detail in the project deliverable "3.1.1 Guidelines of the ConsumelessMed label".

2.2 ConsumelessMed demonstrative measures

As previously highlighted, the demonstrative measures are intended as installations, located in places with a high visibility, aimed at reducing waste, saving water, saving energy or producing energy by renewable sources.

These measures play an important role in communicating to tourists the commitment of the municipalities in reducing the consumption of environmental resources, becoming a key element of the local awareness campaign. Therefore, they should be highly visible for tourists visiting the tourism location and they should be specifically promoted through the communication materials and events of the awareness raising campaign.

The ConsumelessMed tourism location can choose to realize one or more demonstrative measures, focusing on one or all the environmental issues (energy, water, waste). During the testing phase of the MED Consume-less project, the pilot cities are asked to focus the attention just on one issue, but the concept of the ConsumelessMed model foresees the gradual realization of multiple demonstrative measures covering all the three themes.

The demonstrative measures are freely defined by the tourism locations, but in the following paragraphs some examples, related to the three different issues, are described, in order to provide inspiration.

2.2.1 Energy

The following factsheets give a general overview of the kind of tools related to energy saving or to the use of renewable energy, which can be installed in different public spaces having a high visibility.

Example 1 - Photovoltaic LED Public Lighting

2011 Comune di Isera
foto by Florio Badocchi

General description

The public lighting is one of the main cost items for a local authority. The electric consumption to satisfy the lighting demand varies generally between 40% and 70% of the total energy consumption directly to territorial administration load. It is therefore very important to make the service as efficient as possible, reducing the unintended use (minimizing the so-called light pollution) and using renewable energy sources and low environmental impact. In addition, the distributed deployment and widespread points of light, not only provides broad exposure to those who benefit, but also characterizes the quality in terms of luminous efficiency, security and landscaping services.

The following action brings together all the aspects mentioned above, proposing the installation of solar street lights in the more tourist (and naturalistic) areas of the territory.

The action consists in the installation of solar lights for public lighting of pedestrian areas and cycle paths. The device is composed of a pole (generally of variable height steel) between 4 and 8 meters with a light point on the top with a lamp holder and LED illuminating device. This last one is fed by a photovoltaic system composed of a small panel (of variable peak power between 50W and 100W) and a storage battery can supply energy in the hours of lighting request. It has a high demonstration impact and provide economic, environmental and social sustainability.

Technical specifications

- Light point Height variable between 4 and 8 meters
- Galvanized steel pole
- Lamps absorbed electric power between 40W and 80W

Example 1 - Photovoltaic LED Public Lighting

- Useful life of the lighting device> 40000 h
- Annual operating hours 4000 h
- Connection to power grid is not required
- Light Scattering over 90° under 0.5 cd/klm

Environmental benefits

- Energy saving per light point: 150 - 300 kWh/year
- CO_2 savings: 70 to 140 kg CO_2/year[1]

Economics

The cost of the proposed system depends on several aspects including the number of purchased devices, the type of pole, the power and the type of the light point. On a purely indicative level, the cost per unit may vary from 600 € up to 1.200 € and over. Require no special maintenance other than the replacement of the storage battery and LED light approximately every eight / ten years.

Example 2 - Photovoltaic BUS Shelter

General description

Local transportation is certainly the most sustainable ways to move inside urban centre or in

[1] CO_2European Emission Factor 2015 for electric energy consumption 0,460 kg/kWh

Example 2 - Photovoltaic BUS Shelter

neighbouring cities. The higher the quality of the service, the more users who will use it.

In this context can enter the installation of high-tech photovoltaic shelters in public transport station areas. Besides the classic function of the waiting users protection, the structure represents an application of energy sustainability high visibility and can generate interest and curiosity in people who use the additional services.

The action consists in the installation of photovoltaic shelters for public bus stops. The aluminium structure has in cover a glass part and a photovoltaic system whose power varies as a function of the size of the structure itself, from a minimum of 500 W (2 panels) up to 1 kW (3/4 panels). The shelter can be connected to the electricity grid, but it works just as well in stand – alone mode with a battery for the night supply. It can provide users with a wide range of services, ranging from charging points for mobile devices, wi fi access points, up to cooling and ventilation of the waiting users. It installs very quickly without foundation excavation.

Technical specifications

- Long durability aluminium structure

- No need of excavations or foundations for the installation

- PV system peak power variable between 500 W and 1 kW

- LED Night lights (storage battery needed). Absorbed power between 20W to 50W

- Works as a charging point for mobile devices, point of wi fi access and as ventilation system to cool the people waiting during the warmer periods. Can accommodate multimedia info points

- Ideal for sponsorship, can be equipped with LED screens with high visual impact

- Connection to power grid is not required

Environmental benefits

This measure represents an action with no environmental impact, at least with regards to its use phase. The aluminium with which it is made is completely recyclable and energy production does not involve emission of any kind. Below the esteem of the production e the avoided emission of carbon dioxide

- Energy production : 750 – 1500 kWh/year

- Avoided CO_2 emission: 345 – 700 kg di CO_2/Year

Economics

The cost of the proposed system varies, depending on the size of the shelter, approximately between € 8,000 and € 10,000 including the photovoltaic system on the roof. The smart devices can cost between 2,000 € and 4,000 €.

No special maintenance activities are required except the replacement of the storage battery (if present), approximately every eight / ten years. The LED lights for night illumination have an average life of over 40,000 hours making very little frequent replacements.

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Example 3 - Cycle electric mobility

General description

The use of the bicycle as well as providing benefits to the overall health of the user, is a mode of transportation with no environmental impact. The limit is linked to the distances that are covered which obviously can not be excessively high. This aspect can be overcome by the use of electric or pedal assistance bicycles, which allow the coverage of considerable distances without tiring the user. Promote the use of public electric bicycles in a bike sharing network, it is a high-visibility environmental action that can cause the user to circulating them for private use.

The action consists in the installation of one or more photovoltaic charging points for electric bike sharing located in the major tourist interest points like historic centres and tourist information offices. Although the technology is thoroughly tested, it generates a high level of interest and pleasure of use. The charging point can be powered by a photovoltaic system installed on the cover of the shelter, making a zero impact production the electricity needed to recharge. For night recharges, if required, it can be used a storage battery or connect the platform to the power grid. The structure of the shelter it's generally in aluminium and don't need particular maintenance activity. It can be also a charging point for laptops, mobiles and smartphones.

Technical specifications

- Type of bicycle battery: lithium
- Max power of bicycle battery: 500 W
- Recharging time: 4/6 hours for a 25/40 km
- Battery durability: 600 cycles

Example 3 - Cycle electric mobility

- Battery weight: 2,5/3,5 kg
- Long durability of aluminium shelter structure
- No need of excavations or foundations for the installation
- PV system peak power variable between 1 kW and 2 kW
- LED Night lights (storage battery needed). Absorbed power between 40W to 100W
- Works also as a charging point for mobile
- Connection to power grid is not required

Environmental benefits

This measure represents an action with no environmental impact, at least with regards to its use phase. The aluminium with which it is made is completely recyclable and energy production does not involve emission of any kind. Below the esteem of the production e the avoided emission of carbon dioxide

- Energy production : 1500 – 3000 kWh/year
- Avoided CO_2 emission: 700 – 1400 kg di CO_2/Year

Economics

The cost of the proposed system varies, depending on the size of the shelter and on the number of bicycles connected. For the shelter it can be considered a cost approximately between € 10,000 and € 15,000 including the photovoltaic system on the roof. The cost for every bicycle is around 400/600 €.

No special maintenance activities are required except the replacement of the storage battery (if present), approximately every eight / ten years and the substitution opf the bicycle battery every 15000/20000 km.

Example 4 - Photovoltaic tourism info point

General description

The simple and easy access to tourist nature information is, for a local authority, a goal to achieve in a capillary and exhaustive matter. Make users autonomous in choosing places to visit or routes to be taken allows pleasant and efficient tourist experience. The difficulty is often to reach the most remote natural areas not served by the national electric grid. A special network of photovoltaic info points located on the sidelines of nature trails or environmentally protected areas makes possible to provide information on places or even on paths away from urban centers.

The action consists in the installation of one or more photovoltaic tourism info points located in the major tourist interest points or nature trails. It has a high demonstration impact and utility and don't need electricity network. It can be also used as a charging point for laptops, mobiles and smartphones. There are different types of devices and can be installed very easily. The small photovoltaic panel provide electric energy for the functioning.

Technical specifications

- galvanized steel structure with powder paint
- No need foundations for the installation
- PV system peak power variable between 20 W and 100 W
- 21/26" touchscreen
- Can work also as a charging point for mobile devices or for emergency situations.
- Connection to power grid is not required but is necessary the coverage of the mobile network
- A small electric storage system for night operation is necessary.
- Need a vandalism protection system and must not interfere with the natural environment

Example 4 - Photovoltaic tourism info point

Environmental benefits

This measure represents an action with no environmental impact, at least with regards to its use phase. Energy production does not involve emission of any kind but provide a very useful service for tourists. Below the esteem of the production and the avoided emission of carbon dioxide

- Energy production : 30 – 150 kWh/year
- Avoided CO_2 emission: 14 – 70 kg di CO_2/Year

Economics

The cost of the proposed devices varies, depending on the size and the services given, approximately between € 800 and € 1,000. The smart devices can cost between 250 € and 500 €.

No special maintenance activities are required except the replacement of the storage battery (if present), approximately every eight / ten years.

Example 5 Solar Shower

General description

The possibility to use the thermal energy produced by the sun during the summer months, is an efficient savings opportunities of fossil energy sources. The main demand for heat during the warmer months of the year, is linked to the use of sanitary hot water. Solar showers meet those needs in a simple and cheap way and are a measure that can spread awareness on energy saving and use of renewable sources.

The shower with a capacity of at least 20 liters of hot water (which is continually renewed in the day) can be easily installed in camping, swimming pools and bathing areas. There is no need to carry pipes for hot water but just a simple connection to the cold water pipe to the integrated solar collector. A built-in modular solar panel along its back side heats the water in its solar collection tube to temperatures up to 55° C. Operating like a regular shower, its two

Example 5 Solar Shower

chrome-plated valves allows to adjust the water temperature from warm to cold (cold water is delivered directly via the garden hose), for the desired temperature.

Technical specifications

- No batteries or electricity required — 100% solar heated

- Connects to a standard garden hose

- Large, central column fills with water in about 2 minutes

- Water heats in approximately 1 hour (depending on weather conditions)

- Adjustable water temperature (water reaches up to 55°C)

- Non-corrosive brass and PVC construction

- No need of excavations or foundations for the installation

Environmental benefits

This measure represents an action with no environmental impact, at least with regards to its use phase. Assuming a use of five showers a day for 90 days a year, the savings that results can be quantified in about 30 cubic meters of natural gas or 20/22 litres of diesel per year. The avoided CO_2 emission con be quantified in about 60/65 kg, in the case of natural gas, and 80/85 kg for diesel fuel.

Economics

The average cost of a solar shower varies between 200 and 400 euro. Generally it does not include the support structure.

No special maintenance activities are required except that it has to be preferably stored in a dry space during the cold and wet months.

2.2.2 Water

The following factsheets give a general overview of the kind of tools related to water saving, which can be installed in different public touristic structures (such bathing establishment, museums, public toilets, tourist service points, parks,…) having a high visibility.

Example 1 –Water saving devices

General description

The measure includes

- the application of water flow reducers and mechanical timers to showers and taps
- the installation of water saving measures to reduce the consumption in WCs

Technical specifications

Flow reducers and mechanical timers

Flow reducers are devices which reduce the flow of water at the main outflow points such as faucets and showers, as **water efficient shower heads** and **tap aerators**. These devices are considered as soft-measures which are applicable to all the built-up typologies since once fitted they will reduce the flow and therefore the consumption of water.

There are also types of measures that require a high level of engagement with the eventual user since to be effective they require direct and timely inputs from the user when actually utilising the water outflow point, as **shower on-off switches** and **shower timer**. The shower on-off switch permits the user to stop water flow by pushing a button, therefore water flow can be stopped when the user is lathering, to be immediately resumed to continue showering. The shower timer is used to help the user gauge the time spent showering: an alarm goes off after a pre-set time to make the user aware that she/he has exceeded the intended 'showering time'. Since water consumption when showering is directly proportional to the time spent under the shower, reduction in 'showering time' results in lower water consumption.

Water Efficient Shower Head, tap aerators, shower on-off switch

Volume displacement devices

Example 1 – Water saving devices

Volume displacement devices address water use in toilet flushing. A very simple and low cost measure is the introduction of 1 or 2-litre **toilet tank bag** in the cassette, ensuring the use of a lower volume of water with each flush.

Another possibility is to replace conventional toilet with **dual flushtoilets**(generally 3-4 litres/6-9 litres): in this case the behaviour of the user is also important to achieve a relevant water saving; there are also particular cassettes (**low-flush toilets**) designed to maintain all the time a low-flush, consuming 3 litres or less per flush.

Toilet Tank Bag, cassette with double flush, waterless urinals

Waterless urinals can also be installed in public toilets: they use cutting edge technology that eliminates the need for flush or low flush urinals, guarantying at the same time hygienic conditions and the absence of odour.

The selection of the proper water saving devices depends by an analysis of the existing systems in the toilet, the toilet location, the type of users.

Environmental benefits

The main environmental benefit is the reduction of the daily water consumption; a secondary advantage is also the energy saving where the tool is applied to hot water (i.e. shower heads). In the following table the potential water saving that is possible to achieve with these kinds of measures.

Flow restrictors	30-40%
tap aerators	30-50%
Water saving showers	40-50%
Shower on-off switch and shower timers	30-40%
WC with dual flush	20-50%
Low flush toilets	40-70%
Waterless urinals	90%

Economics

These systems are characterized generally by low cost and a very low level of required maintenance.

Measure Type	Device	Estimated cost
Water Flow Restrictor	Efficient Shower Head	3-10 €
	Aerators	2-6 €
	Shower on-off switch	3-8 €

Example 1 –Water saving devices		
WC Volume Displacement	Toilet Tank Bag	0.5-2 €
WC Volume Displacement	New cassette with dual flush	50-100 €
WC Volume Displacement	Waterless urinals	300-600 €

Example 2–Recycling grey waterby Constructed Wetland Technology

General description

The measure includes:

▪ the installation of grey waters reuse system by small constructed wetland systems, where recovered water is reused for WC flushing or green areas watering

Shower, sink, laundry, and dishwashing effluents represent up to 70-80% of residential and touristic wastewater and as it is relatively clean, it is easier to treat. As drinking water is constantly used, generally domestic grey-water is available in a constant quality and quantity. This is an important advantage for the grey-water reuse for toilet flushing, indoor and outdoor irrigation of plants and cleaning purposes.

Grey-water is collected by a separate sewer, pre-treated by simple static degreaser, piped into a treatment system to reach the reuse limits and then stocked in a reservoir from which the treated water comes out that can be inserted again into a dual network connected to the points of reuse. Constructed wetlands and compact precast plants (most of them based on SBR technology, but in some case also simplified MBR (membrane bio reactors) and MBBR (mobile bed biological reactors) are the most diffused treatment tools. Compact systems are more expensive and need a higher level of maintenance, whereas constructed wetlands are easier and economic to realize and to operate, therefore they are often more suitable for the installation in public touristic structures.

Technical specifications

Constructed Wetlands are nowadays one of the most worldwide diffused technologies for the wastewater treatment; their functioning principles are based on biological, physical and chemical processes that occur in natural wetlands, even if the CWs (especially subsurface types) are engineered systems studied and monitored since the end of '70s.

Example 2—Recycling grey waterby Constructed Wetland Technology

The most diffused CWs are the submerged flow system (horizontal and vertical flow type) where the wastewater is filtered by a medium (composed by gravel and/or sand) planted with aquatic emergent plants (generally *PhragmitesAustralis*, *Typhalatifolia* or *Iris Pseudacorus*). Because the water is not exposed during the treatment process, the risk associated with human exposure to pathogenic organisms is minimized. If the design requires expert knowledge, the implementation is very easy because it requires only a basic knowledge of simple hydraulic and civil works (earthmoving, waterproofing by synthetic liners, hydraulic connections, small concrete structures); for small systems sometimes a self-construction is also possible. Moreover CWs can be maintained by the local community as no high-tech spare parts, electrical energy or chemicals are required.

Constructed wetland systems are typically constituted by:

- a shallow basin (about 1-1.5 m deep), generally obtained by earthmoving and excavation works and only in rare cases using concrete structures;

- a synthetic liner (generally made of HDPE, EPDM or PVC) to waterproof the bottom and the banks; for small systems it is possible to find precast liners);

- filter media: fine washed gravel in horizontal flow, a combination of fine gravel and coarse sand in vertical flow systems), for a total height of 0.6-1 m;

- a loading system, located at the inlet in horizontal flow systems and on the whole upper surface in the vertical flow systems);

- a drainage system for emptying the bed from the treated water, constituted by slotted pipes connected to a special device that permits to control the water level in the bed.

The purification of household grey-water in a vertical-flow or horizontal flow reed bed requires a specific area of 0.5-1 m^2 every 100 liters/day of grey-water to be treated.
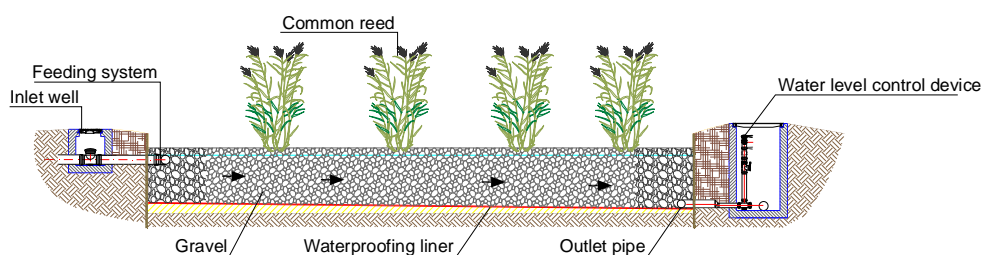
Schematic profile of a horizontal submerged flow constructed wetland

Environmental benefits

The main environmental benefit is the reduction of the daily water consumption; in addition to water saving devices, the grey water recycle permits to use not-potable water for WC flushing or irrigation, strongly increasing the volume of saved water daily.

Other advantages of CWs in comparison with other grey water recycling technologies are the high treatment efficiency, the excellent environmental integration, the low investment cost and low maintenance requirements, the null or very low energy consumption, the high tolerance to seasonal and daily fluctuation of fluxes and dry periods typical of touristic structures.

Example 2—Recycling grey waterby Constructed Wetland Technology

Economics

The construction costs (without pretreatment) may vary among 100–200 €/m2 depending the capacity of the system.

Operating and maintenance costs are very low, considering that there is no energy consumption and that the maintenance operation (as the yearly cut of the vegetation, or the checking routine) can be done by unskilled personnel; a yearly cost of 0,5-2 €/m^3 of recycled water can be assumed depending on the size of the system and the seasonal production of grey-water.

## Example 3—Recycling grey waterby Green Walls

General description

The measure includes:

- the installation of greywater reuse systems by vertical gardens, where recovered water is reused for WC flushing or green areas irrigation.

Technical specifications

The vertical garden, (or green wall, bio wall or living wall) is a light framed, mostly self – supporting plant community where the necessary water, light and liquid plant food are provided by a highly automatized system. The system is based on the principles of hydroponics where the plants are rooted in a porous material soaked in fertilizer instead of soil. Adapting its construction to improve the filtration capacity, a vertical garden can be used also as grey-water treatment, permitting to reuse the treated water.

Example 3—Recycling grey waterby Green Walls
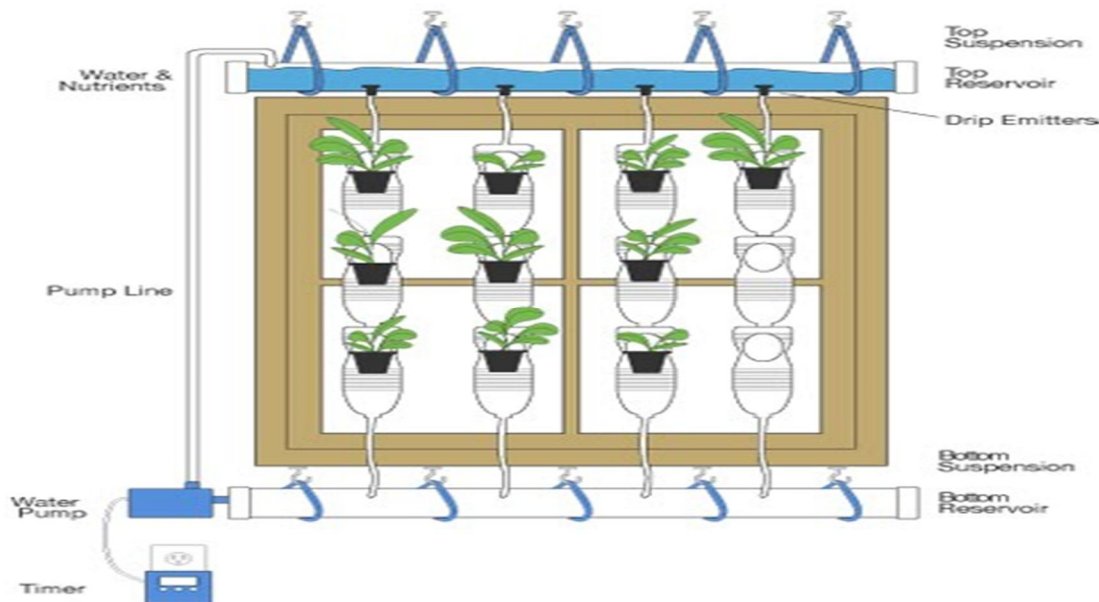
There are very few applications in the world of greenwalls with treatment purposes; even though these experiences are successful and interesting, currently it is difficult to individuate a precise application level, as well as to draft precise guidelines. Their application is therefore limited to experimental and demonstrative applications, with the aim of optimizing the technique, the design and the construction principles.

Some pilot systems have been recently developed with hydraulic loading rate of 35-50 litres/day per m^2 of vertical wall, showing removals of 75-95% for organic content.

The design of vertical gardens depends on the available material, space and local preferences; from very simple designs like tray models similar to nursery flats, where rectangular, plastic trays are divided into planting cells, to more complex realizations with the usage of stainless metal frames. The selection of the plants is a technical criterion of utmost importance because it determines the texture, the colour-combination, shape variety and life span of the wall and in case of treatment also the removal efficiency

The inlet system includes a water-tank from where the water is pumped to an automatized drip irrigation system, or similar pressure structure, in order to distribute the water into the several pots. Treated water is usually collected by gravity at the bottom of the green wall by small open channels.

Grey-water have to be pre-treated (degreaser and a pre-filter are suggested to avoid obstruction of the drip irrigation system and of the vertical filters)

Environmental benefits

The main environmental benefit is the reduction of the daily water consumption; in addition to water saving devices, the grey-water recycle permits to use not-potable water for WC flushing or irrigation, increasing the saved water volume daily.

The advantages of a vertical wall in comparison with other recycling technologies are the quite easy construction and management, the landscaping opportunities, the positive effects on the building energetic efficiency, the limited horizontal space required and the possibility to exploit unused surfaces in urban areas, the quite low operating cost, the need of unskilled

Example 3—Recycling grey waterby Green Walls
labour for their maintenance.

Economics

The implementation cost is difficult to assess, giving the few experiences worldwide, the different ways to realize a green wall at different locations; roughly a cost of about 200-300 € every 100 liters/day of grey-water to be treated can be considered. It has to be noted that in most of the cases a green wall for grey-water treatment is a classical green wall adapted to treat grey-water: in this case the additional cost for the adaptation of a classical green wall is very low and moreover the loaded grey-water permit to avoid a high water consumption for their watering, generally a critical point in a full-scale application.

2.2.3 Waste

The following factsheets give a general overview of the kind of measures related to waste prevention or sustainable waste management, that can be realized in public places having a high visibility.

Example 1—Public fountain of high quality water from the waterworks

General description

The measure consists in the installation of public fountains of either still and sparkling water from which the town dwellers can get supplies of depurated drinking-water coming from the town waterworks. The fountains must be installed in strategic urban places, easily accessible by tourists.

The public fountains countervail the common practice of buying water exclusively in plastic bottles; therefore can give a remarkable contribution to decrease the volume of plastic waste

Technical specifications

There are many producers of outdoor drinking water fountains and many different type of fountains.

As they are powered by water from the aqueduct, the quality of water is generally potable at the origin in accordance with the requirements of law. Anyhow they are usually equipped with systems to improve some of the most organoleptic characteristics in order to encounter the favour of end users, in particular with reference to carbonation and/or refrigeration, possibly

Example 1—Public fountain of high quality water from the waterworks

accompanied by processes of filtration and disinfection with ultraviolet rays, also for the purpose to ensure the functionality of the plants over time and to improve their usability in widely public spaces.

First of all, the equipment should be placed in a space hygienically fit, appropriately prepared, and located in areas where citizens and tourists can easily take the water distributed.

The technologies for water distribution can have an hourly production variable depending on the context in which they are installed; the installations that have been realized nowadays mostly operate in an average hourly delivery range of between 150 and 500 l/h.

In general, such installations include the following treatment sections:

– Micrometric filtration (> 50 micron), to eliminate from the water the presence of sand and foreign bodies which could cause damage to pipes, valves and equipment in general;
– Feed water pressure reduction when it is too high and in any case above 6 bar;
– monitoring device providing information to users
– reporting software for the creation of delivery statistics
– composite filter to further refine the water supplied;
– possible disinfection sections with different systems, from ultraviolet (UV) light fixtures to physical barriers of various technologies (absolute micro filtration, ultrafiltration etc.).
– gaseous section with carbonation groups that allow you to add anhydrous carbon dioxide (at room temperature)
– refrigeration section with cooling units
– Possible final disinfection section with UV rays.

In general, they are also characterized by the following technical features:

– safety canopy protection
– internal insulation to give protection against freezing
– equipped with electrical buttons to choose the amount and type of water (still or sparkling)
– support tray for the bottles to be filled and for those already filled
– drip tray directly connected to the drain to prevent any overflow that could freeze in winter
– night lighting

Further optional accessories can include:

– solar cells to reduce power consumption
– authentication system using magnetic cards
– electronic system for the management of payments with magnetic cards
– PC for the management of communications and advertising
– UV lamp to protect the supply area against microbial contamination

For taking water, a stainless steel tap is generally provided to minimize manual contact and possible entry of foreign bodies or insects. The distance between the taps and the collecting tank is often such as to allow the use of bottles but not of large capacity tanks; in this way, it is not allowed to extract large quantities of water and avoid the formation of tails.

Environmental benefits

The litres of water supplied by the public fountains will reduce the production of waste. It is assumed in fact that the amount of water drawn using reusable containers entail the non-purchase of bottled water in disposable containers.

Example 1—Public fountain of high quality water from the waterworks

Therefore, the quantitative data about the litres of water supplied, acquired by the Municipality, allow to estimate the amount of plastic and glass waste not produced by applying the estimation method shown in the table below.

Estimation of waste savings		
	Formula	**Measure unit**
Litres supplied (A)	Input data required	l
Litres supplied in plastic bottles (80%) (B)	A*80%	l
Litres supplied in glass bottles (20%) (C)	A*20%	l
N. of plastic bottles saved (da 1,5l) (D)	B/1,5	n
N. of glass bottles saved (da 1l) (E)	C/1	n
Unitary weight per plastic bottle (F)	38	g
Unitary weight per glass bottle (G)	450	g
Total weight of plastic waste saved	**(D*F/1000)/1000**	**t**
Total weight of glass waste saved	**(E*G/1000)/1000**	**t**

If we consider for example a public fountain that supplies annually 500.000 litres, which can be considered a good reference number, we can expect to save 10 tons of plastic waste and 45 tons of glass waste.

Moreover, they help to reduce CO_2 and petroleum emissions caused by PET production and carbon emissions of trucks carrying plastic bottles.

Economics

The costs for purchasing and installing the equipment range between €7.000-€20.000 depending on the number of taps and the complexity of the installation.

Approximately €2.000 are needed for the connection to the aqueduct and the counters. The annual maintenance and laboratory analysis activities cost around € 6.000 on average.

The entire installation can then have very variable costs depending on the type of construction used. Fountains are sometimes also realized in masonry structures, designed for hosting also communication materials: in this regard, the costs of works and structures can be comparable to the cost of the plant alone.

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Example 2—Separate waste collection in beaches
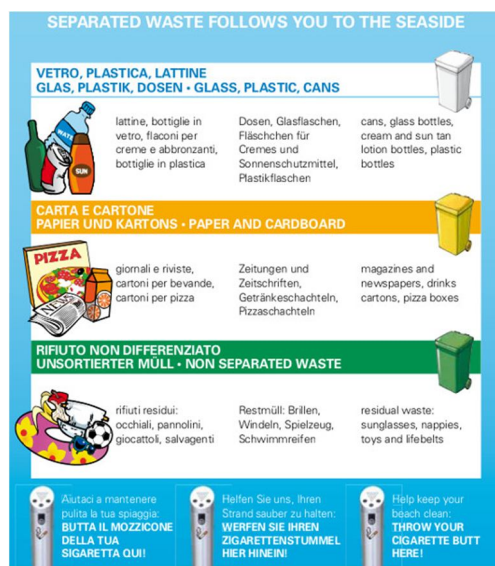
General description

The measure consists in organizing an effective separate waste collection service over the beaches, in cooperation also with bathing establishments.

Technical specifications

The waste collection system requires the installation of bins for the different waste fractions, with a specific focus on bottles and cans, and it must include also specific equipment for the collection of cigarette butts. Each evening specific waste collection vehicles, able to move without problems on the beach, collect waste from the bins.

A specific communication campaign must also accompany the implementation of this measure, in order to raise the awareness of tourists and inform them on how and where waste disposal can be made.

Environmental benefits

The environmental benefit is related to the possibility to recover materials from recycling the separately corrected waste fractions instead of sending them to incineration or landfilling.

Economics

The costs of this service depend on the extension of the beach and are related to the number of bins that need to be purchased and installed and to the collection frequencies, i.e. the costs of the operators and vehicles needed for delivering the separate collection service.

Project co-financed by the European
Regional Development Fund

Example 3—Reverse vending machines for plastic bottles and cans

General description

The measure consists in the installation of reverse vending machines in public spaces, i.e. devices that accepts used (empty) beverage containers and return rewards, such us discounts in shops or tourist attractions. Tourists can thus recycle their empty containers getting points generated by the machine itself and can then redeem these points for rewards.

Technical specifications

Reverse Vending Machines, (RVM's) are automated machines that utilise advanced technology to identify, sort, collect and process used beverage containers. To ensure smooth implementation of the measure there must be an operator of the system providing regular maintenance services and correct material´s recovery. The public administration controls the transparency of management data and audits the accounts of the system.

In business practice there are two most common models for reverse vending machine operation: the first is conventional sale model, where the reverse automated machine is purchased by the customer and as owner of it he collects the disposed recycled products compensates the depositors and later he gets monetary compensation or reimbursement of deposit from the fillers, bottlers, importers or recyclers. The second is lease model which is very flexible, allowing central recycling organization to maintain ownership on reverse vending machines. That provides many opportunities for placement and installation the machines in convenient public places. This approach increases the capacity to collect product packaging for its future recycling or reusing in many locations.

Automated reverse vending technology, especially in the case of lease model use, allows the use of RVM full time on all days of the week. In case of reaching a certain degree of fullness, the remote monitoring of the reverse vending machines can execute a command and submit early information or real time information about the need for replacing, no available capacity, repairs or the need for the respective technical maintenance, etc.

There are many producers of Reverse Vending Machines, that generally provide a full service including design and installation, regular maintenance services and full waste management services. The RVM available on the market vary a lot with respect to many different features, such as container specifications, speed capability, connectivity, configuration, recognition system, user interaction etc.

Just to provide an example, we provide in the following figure the technical specification of a standard model of RVM.

Example 3—Reverse vending machines for plastic bottles and cans

Dimensions		Compatibility

Combi
Weight: 200 kg
Footprint: 0.58m²

Optional
Steel wall frames (in cabinet color)
Width: + 100mm each side

T-9 is compatible with:

EasyPac™
Based on a building-block concept providing a unique grade of flexibility. Each cabinet is an independent unit with sorter, compactor and up to two storage destinations.

Container specifications	Speed capability	Environmental	Electrical	Connectivity
Bottle size Diameter 50-130mm, Height 85-380mm **Can size** Diameter 50-100mm, Height 80-200mm Glass, plastic and cans (steel and aluminum) **Crate** Min: W: 120, H: 100, L: 120 mm Max: W: 405, H: 405, L: 530 mm	**Shape & barcode reading** Up to 60 containers per minute **Crate recognition** Up to 21 crates per minute	**Humidity** Maximum 90% relative humidity, non-condensing **Temperature** +10°C to +40°C The machine has been designed for indoor use only	**Power consumption** Idle 65W **Mains:** 230 V AC 1-phase w/ground 50 Hz, min 10A, max 16A	LAN (Ethernet TCP/IP) interface POS compatible

Models	Recognition	User interaction	Door colors
Combi machine (Bottle and Crate) Bottle machine	**TOMRA FlowTechnology™** **TOMRA True Vision™** **Technology** **For both refillable and non-refillable** Barcode recognition Shape recognition Full container detection Metal detection **Optional** Security mark recognition in addition	10,4" high resolution color touch display User guidance in display and in crate part Video and sound Includes TOMRAPlus BASE Prepared for TOMRA Value Adding Services	Acrylic sheet, one side glossy, one side matt (door) **Standard colors:** Light grey NCS S3005-R80B Dark grey NCS S7005-R80B Red NCS S1580-Y90R Black ALTUGLAS 121 48000 Custom color and décor print upon request

Environmental benefits

The Reverse Vending Machines (RVM) makes recycling easy as the Reverse Vending Machines (RVM) is stationed in public spaces highly visible and easily accessible by citizens and tourists, in not directly inside or in the entrance of grocery retail stores. It makes recycling convenient as it is fast and clean, and in combination with the instant reward this motivates repeated use. The reverse vending machine (RVM) engages users even further when the owner exploits the possibilities to use the RVS as a tool for sales-promotions, branding and CSR-programs.

Reverse Vending Machines (RVM) maximizes material value and maintains material properties as the containers are sorted by material type. This keeps the material fractions so clean they can even be recycled into new containers thus closing the material loop and avoiding downgrading. It decreases transportation needs as the material is sorted and compacted on site, optimizing transportation capacity and avoiding transport movements to do sorting.

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Example 3—Reverse vending machines for plastic bottles and cans

Economics

The machines can be purchased, with costs ranging between €4.000-30.000, or leased.

Example 4—Waste art installations

General description

The measure consists in involving artists in the realization of art installations made using waste materials.

Waste art installations located in public places with high visibility are very effective to raise awareness of tourists about the waste problem

The measure can be realized with one or more permanent installations, but also as temporary exhibitions organized during the tourism season.

Technical specifications

As the measure can be organized in many different ways and it implies mainly organizational activities than technical ones, it is not possible to provide general technical specifications.

In case of a temporary exhibition, for example, the measure will consist in the set-up of the exhibition by collecting a series of works by artists working with recycled materials and realizing the related communication activities. The artists will work with the materials they love most, and the result is a rich show that speaks of sustainability and of the commitment that we should all have towards this theme.

Environmental benefits

The measure doesn't imply relevant direct environmental benefits, as it only consist in using a small amount of waste material to realize installation. But the indirect environmental benefits can be very high as the measure can be very effective for raising the awareness of citizens and tourists on the relevance of the reuse and recycling of waste.

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Example 4—Waste art installations

Economics

The costs can vary a lot, depending on the choice of realizing a single installation, an exhibition, a price competition involving schools. It is therefore difficult to provide reference figures.

Just to provide an example, in case of a temporary exhibition the needed investments are of two types:

- one is variable and depends on the number of invited artists and on any request from the exhibition site for large format works. Each artist is generally compensated by a lump sum of € 500/1.000. regarding any expenses requested by the host structure, the organizer's effort will be to have it as partner of the show.

- the other is a fixed cost necessary for setting up an promoting the exhibition and can be estimated in a total ranging between € 6.000/12.000 that can include:
  – the catalog (max 48 pg; 100 print copies);
  – exhibition stands;
  – reimbursement of expenses for organizers-curators.

2.3 ConsumelessMed awareness raising campaign

2.3.1 Objectives of the campaign

The ConsumelessMed awareness raising campaign has two main objectives:

- on one side, to **mobilize and involve tourism operators and tourism service providers** (hotels, restaurants, bars, tourists shops) at local level in improving the environmental sustainability of the services offered to tourists, by implementing specific good practices aimed at reducing waste and saving energy and water, thus preserving the attractiveness and competitiveness of the tourism location;

- on the other side, thanks also to the direct involvement of tourism operators and tourism service providers, to **raise the awareness of tourists and citizens** on the importance to adopt sustainable ConsumelessMedbehaviours in order to preserve the ecosystem services and the related attractiveness of the tourism location.

2.3.2 The ConsumelessMed logo

2.3.3 Key message of the campaign

The key message of the awareness raising campaign is the minimization of the environmental impacts determined by the tourism flows, the sustainable use of natural resources in the tourism locations, the preservation of the local ecosystems and natural and cultural heritage, to be enhanced in all the communication materials and events through the key message:

"Come to visit our place and feel one of us!"

"Become a consumelesstraveler" (for tourists)

"Become a ConsumelessMed companion" (for economic operators)

2.3.4 Target audience

The main target audience of the awareness raising campaign are **tourists**, that through the communication tools and initiatives must become aware of the efforts of the tourism location in promoting a sustainable tourism and should progressively be induced to adopt sustainable tourism behaviours or to choose the tourism location because of its ConsumelessMed commitment.

A relevant target audience are also **tourist service providers**, as they have a crucial role in the successful implementation of the tourism model and should therefore be stimulated in taking action for improving the environmental sustainability of the services offered to tourists by joining the ConsumelessMed label.

Finally also citizens have to be considered a target audience, as they can also contribute to guarantee a sustainable development of the tourism location by adopting environmentally wise behaviours.

2.3.5 Communication strategy in the ConsumelessMed tourism locations

The communication strategy is based on three main components:

- **Communication initiatives and tools for a "widespread information" at Municipal level**, aimed at promoting the ConsumelessMed brand, thus enhancing the commitment of the tourism location in the implementation of a sustainable tourism model. In general each local communities can decide and apply the best territorial communication strategy for supporting the knowledge and spreading of the label, by means of key message to launch around the more visited places of the municipality. Some examples of events and tools are supplied here:

Type of material	Short description	Picture or link/reference
Communication initiatives and tools for a "widespread information" at Municipal level		
Atypical events	Festivals, popular celebrations sponsoring typical food, traditions and promoting the facilities applying the ConsumelessMed label and Workation. Create funny events involving tourists and citizens, where the demonstrative measures and the label will be showcased. Within these events a video corner is foreseen, for the view of the project video and with the possibility to make own video "storytelling" style, as well as info points supplying necessary information on devices used for saving water, energy and waste	
Informative materials by the demonstrative installations	Organization of an info point, eventually also with the possibility to show the project video, by the site where the demonstrative measures are installed	

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Type of material	Short description	Picture or link/reference
Street lamp flags	Realized in durable materials, to be placed during the tourist season in the main streets of the city centre or along the seaside streets	
Hanging flyers (for public transport)	Realized in recycled paper, to be placed in the public transport fleet or tourist buses, where available	
Informative totems	Realized in durable materials, promoting the commitment of the tourism location for a sustainable tourism, as well as enhancing main water, energy and waste sustainable measures or main environmental resources	

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Type of material	Short description	Picture or link/reference
Street banners	Realized in durable materials, to be placed during the tourist season in the main streets of the city centre or along the seaside streets	
Posters	Big posters (6x3 meters) to be posted in highly visible places for tourists (train stations, airports, main entrance on the tourism locations etc.)	

- **Communication initiatives and tools realized by the sites of tourism service providers** (hotels, B&B, camping sites, beach resorts, food and handicraft shops etc.), consisting in the distribution of the project communication materials and messages by local facilities applying the consumelessMed label to their customers. Specific communication kits are provided to each local facility, as for example the following:

Type of material	Short description	Picture or link/reference
Communication initiatives and tools realized by the sites of tourism service providers(hotels, B&B, camping sites, beach resorts, food and handicraft shops etc.)		
Window film	Stickers for windows 8x8 cm, CMYK *(for all types of tourism service providers – **should be compulsory**)*	

Type of material	Short description	Picture or link/reference
Plaque displaying the label	realized using a sustainable material (recycled plastic, FSC or recycled wood etc.) *(for all types of tourism service providers)*	
Brochure about the label and the tourism location, including a map displaying the participants to the label	A5 - CMYK - recycled paper / 10 pages, two of which personalized in each pilot area + map displaying participants to the eco-label, specific for each pilot area *(for all types of tourism service providers - **should be compulsory**)*	
Poster describing main commitments in local language + English	Realized in paper or durable materials (textile, forex, foam board), indicative format: 35x50 cm *(for all types of tourism service providers - **should be compulsory**)*	
Poster describing main environmental issues (energy/water, waste) and more issues	Realized in paper or durable materials (textile, forex, foam board), indicative format: 35x50 cm *(for all types of tourism service providers)*	

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Type of material	Short description	Picture or link/reference
Menu/breakfast/room cards or placemats	Printable in various formats and over different materials, according to the styles of the facilities / various format (A5, A6 etc.) *(for all types of tourism service providers except food and handicraft shops)*	
Sugar bowls or other durable items (caraffs, soap dispensers etc.) displaying the label	Realized in recycled glass or other recycled materials *(for all types of tourism service providers – to be chosen in the specific tourism location)*	
Shelf labels	To be used in shops for enhancing the shelves where sustainable products are placed *(only for food and handicraft shops)*	

- **On line communication strategy and tools.** In order to promote a model of sustainable tourism in the Mediterranean communities, the project develops a social media communication strategy which puts the tourist/traveller at the heart of the process. In this way he/she becomes the spokesman of the ConsumelessMed brand core values. By promoting the territories (video-storytelling) and advising tourist/traveller on the use of services/tourism products displaying the ConsumelessMed label/badge (Map SoLoMo approach), the partners encourage other tourism service providers to take a responsible attitude. In general tourists and citizens are involved through the collection of video and audio messages, pictures or other messages with the Hash-tag #consumelesstraveler and if necessary also #consumelessmed_ "name of the city" (e.g. consumelessmed_ragusa) testifying that they have liked the commitment of the tourism location for a sustainable tourism. The messages collected are then used to promote the tourism location through the marketing strategy. Specific gadgets are given to the tourists that leave a message about the ConsumelessMed brand, as for example water flasks, reusable bags, recycled plastic beach Ashtrays, fan in recycled materials and so on. Furthermore some "storytelling" messages are collected around the territory for showing their attitude to a sustainable development and short video could be uploaded on the map for each tourism service

providers applying the label. All these video, messages, storytelling, posts and so on will animate constantly the "consumelessMed.org" on-line platform. The first storytelling audio-visual tools are produced at professional level for promoting the territory with its peculiarities and thus the main pillars of the ConsumelessMed label. A specific document will be attached at the end of the testing phase for describing the online communication strategy and the related marketing opportunities.

Some specific events can be organized in order to animate and involve the territory for creating this communication and marketing strategy, like "workations" involving the digital nomads, and some gadgets can be supplied for involving tourists for animating the social communication strategy, as the following examples:

Type of material	Short description	Picture or link/reference
Communication initiatives realized involving directly tourists and citizens		
Video, audio, written messages collected from tourists (Storytelling / So-Lo-Mo approach)	These messages are collected from tourists. Different approaches can be used: organization of workstations, engagement of video makers, set up of designated stations for leaving messages by the sites of facilities applying the label	
Gadgets for tourists leaving messages for the "storytelling" *(choose at least one to provide to tourists)*	Reusable Shopping bags displaying the logo, realized in recycled or sustainable materials	
	Customized flasks displaying the logo, realized in aluminium	
	Notes booklet with pencil displaying the logo for travellers, with cover in recycled cardboard and pages in recycled paper	
	Fan displaying the logo, realized in recycled material	

Type of material	Short description	Picture or link/reference
	Beach Ashtrays, realized in recycled material	

In the following factsheet it is shortly described the concept of the **"workation"**, as it is an effective example on how to animate the territory involving local communities, social professions and new possible "tourists", the digital nomads, professional freelances, with an aim, for example to organize the collection of "storytelling" messages. The description of the factsheet is based on the approach that the Sicilian partners are going to implement in the pilot area of Ragusa, in Sicily, for the organization of the local Communication campaign.

Workation – Concept and implementation approach

La Prima Workation Professionale in Italia per Nomadi Digitali

Sicilia – Ragusa - Maggio 2017

10 Professionisti e Nomadi Digitali

10 Giorni di Workation Vacanza + Lavoro

Un Progetto da Sviluppare

Un Obiettivo da Raggiungere

General description

The English word "workation" is a combination of the word "work" and the word "vacation"

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and indicates a "working vacation", or creative, or a more or less long time spent in a place, a tourist destination for its historical, nature, food and wine, taking with them their jobs.

The workation is practiced and conceived for the Web entrepreneurs, creatives, for freelancers and for anyone that needs a good Wi-Fi connection and a laptop to work.

Workation and the new professionals of the digital era

Internet has created a new category of workers, the Digital Nomads. They are professionals and Web entrepreneurs who like to travel, discover new places, explore new places, working independently.

For this type of professionals - whose number is increasing dramatically due to the development of mobile technologies related to the Internet and to the smart working, also practiced by companies - the advantage of a workation is to be able to discover new places and enjoy the pleasure of a vacation without the need to stop their work.

The added value of a workation is to carry out the professional activities in a shared working environment, in contact with professionals and entrepreneurs from the same cultural background and work, with which to discuss topics of common interest, in a relaxing environment, heartedness and deceleration that only a vacation can offer.

Several organizations are offering experiences of workation for digital nomads, start-uppers and freelancers – i.e. Refuga.com, Hacker Paradise, Coworkation - providing to the participants tourism facilities, which can usually accommodate 15 to 20 people, to live and work all together for a week or more.

The tourism facilities provide a common area equipped for co-working and net-working among the participants, who share hours and work spaces, but also the most typical experiences of a holiday such as sports, relaxation, excursions, friendly gatherings.

Organization of a workation for realizing the Communication campaign of the MED ConsumelessMed tourism model in the pilot areas

The organization of a workation within the activities for the implementation of the consume-less project in the pilot areas can be used to design and developthe ConsumelessMed communication campaign on social media.

The communication campaign is aimed at raising the awareness of tourists, local stakeholders and tourism service providers to a more sustainable management of energy, water and waste in coastal tourist areas of the Mediterranean.

The professionals to be involved are "digital nomads" communication experts, with different skills specifically useful to the development of a professional communication campaign on Social Media.

Among them, for example, can be included: a Project Manager, a Film Maker, a Copywriter / Storyteller, a Copywriter / Translator, a Web Designer / WordPress Specialist, a Graphic Designer / Front End Developer, a Social Media Manager.

During the period of the workation, the professionals involved will discover the territory that hosts them and will produce "storytelling" materials which will be the final outcome of the period spent in the tourism location.

Under the supervision of a project manager, the participants will work as a team, each for their own professional skills, for the design and implementation of an effective and emotional communication campaign of the ConsumelessMed tourism model in the specific tourist

Workation – Concept and implementation approach

location.

Brainstorming sessions, co-working and team-working will alternate to the more typical holiday moments that, as has been shown in other experiences of workation, are capable of stimulating creativity and productivity.

At the end of the workation the professional team will officially present the designed communication campaign, that can be composed, as an example, by the following materials:

- Web Platform: (Web Site) containing the material produced during the workation (video-storytelling, interviews, textual content and project content)

- Video-storytelling

- Ad hoc viral campaign on social networks

- Backstage Video of the event

which it could therefore be implemented immediately after the conclusion of the workation experience to achieve the objectives of the MED Consume-less project.

Within the project, the first professional Italian workation is organized at least in the pilot case of Ragusa, in Sicily. The initiative will be used by Svi.Med to design also the project ConsumelessMed on-line platform, that will be used for the project capitalization and networking activities and will host also the communication materials (Storytelling) produced in the other pilot areas.

2.4 ConsumelessMed monitoring

The effective monitoring of the results obtained thanks to the implementation of the ConsumelessMed tourism model is a key element of the implementation approach, both because it allows to evaluate the effectiveness of the actions implemented in reducing the environmental pressures in the tourism location and in promoting a sustainable tourism, both because it provides useful data and information for the development of the ConsumelessMed marketing strategy.

The monitoring approach reflects the model concept, and is thus articulated in three different components:

- **Monitoring of the label implementation**, according to the monitoring approach defined in the ConsumelessMed label guidelines (deliverable "3.1.1. Guidelines of the ConsumelessMed label").

- **Monitoring of the demonstrative measures**, according to specific monitoring procedures related to the kind of measures implemented.

- **Monitoring of the sustainability level achieved by the tourism location**, based on the application of the European Tourism Indicators System (ETIS) for sustainable destination management, developed by the European Commission.

In the following paragraphs, the monitoring approach to be applied for each component is described.

2.4.1 Monitoring of the ConsumelessMed label implementation

Monitoring the implementation of the ConsumelessMed label is one of the obligation of the facilities applying the label. The monitoring approach is based on the realization of self-audits by the facilities involved and on periodical on-site audits to the facilities performed by the

ConsumelessMed label committee (i.e. the pool of local organizations responsible for the implementation of the label).

Facilities applying the label have to make a self-audit identifying existing management activities aiming to reduce waste production, to increase separated collection, to reduce water and energy consumption, on the basis of a monitoring check list (one for each type of "target groups"). At the end of each year, the monitoring checklist used for the preliminary analysis have to be filled in again describing the measures adopted in order to satisfy mandatory and voluntary criteria. The compiled checklist have to be sent to the ConsumelessMed committee that will check it through an off-site audit. Additional on-site audits should be organized yearly by the committee on a minimum sample of facilities (20%-25%).

For the first year of application the facilities have to report and show that at least all mandatory criteria have been satisfied. For the following years they have to add - at least – a new voluntary action or to set - at least - one yearly target improving quantitative results related to mandatory criteria (e.g. increase energy efficient light bulbs from 50% to 70%, add a new category of waste collected separately or reduce the number of single use products served at the restaurant) .

The detailed description of the monitoring methods and tools is provided in the ConsumelessMed label guidelines (deliverable "3.1.1. Guidelines of the ConsumelessMed label").

2.4.2 Monitoring of the demonstrative measures

The monitoring of the demonstrative measures has the objective to evaluate and communicate to tourists and citizens the contribution of each single measures to reduce waste generation or save energy and water consumptions. For this scope, specific monitoring procedures must be defined for each specific measures, specifying the type of data that need to be collected and the calculation methods that must be applied in order to express those data in terms of waste, water and energy savings, or more in general in terms of environmental benefits (for example, in terms of CO_2 savings).

In order to provide an example, the following factsheet describes the monitoring procedure that can be applied in the case of the demonstrative measure "Public fountain of high quality water from the waterworks".

Example of monitoring procedure - Public fountain of high quality water from the waterworks

Monitoring approach and data collection

For the purposes of monitoring, the person in charge of the maintenance of the public drinking water fountains is required to provide to the Municipality the data about the liters supplied by each public fountain. These data must be provided every 6 months.

Methods for calculating the results achieved in terms of waste savings

The litres of water supplied by the public fountains will reduce the production of waste. It is assumed in fact that the amount of water drawn using reusable containers entail the non-purchase of bottled water in disposable containers.

Therefore, the quantitative data about the Litres of water supplied, acquired by the Municipality, allow to estimate the amount of plastic and glass waste not produced by applying the estimation method shown in the table below.

Estimation of waste savings		
	Formula	**Measure unit**
Litres supplied (A)	Input data required	l
Litres supplied in plastic bottles (80%) (B)	A*80%	l
Litres supplied in glass bottles (20%) (C)	A*20%	l
N. of plastic bottles saved (da 1,5l) (D)	B/1,5	n
N. of glass bottles saved (da 1l) (E)	C/1	n
Unitary weight per plastic bottle (F)	38	g
Unitary weight per glass bottle (G)	450	g
Total weight of plastic waste saved	**(D*F/1000)/1000**	**ton**
Total weight of glass waste saved	**(E*G/1000)/1000**	**ton**

2.4.3 Monitoring of the sustainability level achieved by the tourism location

In each pilot area, information and data collected for monitoring the implementation of the ConsumelessMed label, the awareness campaign and the demonstrative actions will be used for developing a feasibility analysis of a broader monitoring system able to describe and measure the tourism impact and the sustainability performance of the area: **the European Tourism Indicators System (ETIS)**.

The ETIS is a voluntary tool based on self-assessment, observations, data collection and analysis launched by the European Commission in 2013 with the aim helping destinations to monitor and measure their sustainable tourism performance, by using a common comparable approach. The ETIS toolkit was tested by more 100 destinations across Europe over a 2-year period.

The ETIS is based on 43 core indicators providing destinations with the basic information they need to monitor sustainability and to manage tourism activity more effectively. The indicators are subdivided into four categories:

1. destination management,

2. social and cultural impact,

3. economic value,

4. environmental impact.

The information and data collected through the implementation of the ConsumelessMed model, including further information that could be collected by the public authorities and the other stakeholders involved in pilot activities, will be compared to the data-set required by the 43 ETIS indicators, highlighting possible synergies and the existing gap.

Another key step of the ETIS is the multi-stakeholder approach that encourages destinations to form a stakeholder working group stimulating cooperation and coordination and supports the management and monitoring process. This is coherent with the involvement of public local

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authorities and local stakeholders foreseen both in the implementation of the ConsumelessMed label and the demonstrative actions.

Even if partially implemented, the framework of the ETIS system could be a starting point that, once properly developed, could be used to monitor, manage, and enhance the sustainability performances of the ConsumelessMed tourist destinations after the life span of the project.

2.5 ConsumelessMed marketing strategy

The ConsumelessMed marketing strategy is a key element of the tourism model, aimed on one side at enhancing at Regional, National and International level the effectiveness of the consume-less approach for promoting a sustainable tourism (capitalization objective), and on the other side at promoting the ConsumelessMed brand and increasing the attractiveness of the ConsumelessMed tourism locations, thus busting their economic sustainable development (territorial marketing objective).

The two objectives are strictly linked to one another, as the capitalization of the consume-less approach, i.e. its assumption by Regional and National Governments as a reference approach for implementing a sustainable tourism, is a fundamental step for gaining the needed support for an effective territorial marketing of the ConsumelessMed tourism locations.

The ConsumelessMed marketing strategy will thus first of all identify main channels at Regional, National and International level for capitalizing and introducing policy recommendations for promoting the ConsumelessMed tourism model, thus ensuring its future transferability and durability.

At the same time, the marketing strategy will also define the promotional materials to be realized in each ConsumelessMed tourism location, that will be then promoted through the marketing channels, tools and media identified and set up at Regional, National and International level. The promotional materials at local level will be based on those developed within the local communication campaign, with particular reference to the storytelling and So-Lo-Mo approach.

A fundamental tool of the marketing strategy will be the **ConsumelessMed tourism model on-line platform (www.consumelessmed.org)**, that will promote the ConsumelessMed tourism locations, showcasing all the promotional materials produced at local level (storytelling products). The platform will also guide other interested Regions and Local authorities in the implementation of the model: through the platform, it will be possible to follow step by step the implementation method, to gain practical information and contacts related to case studies, to download all the tools designed, tested and refined within the project.

The ConsumelessMed marketing strategy will be defined in details within the capitalization activities (WP5), based on the results of the project testing (WP3) and transferring (WP4) activities and considering European policies and programmes related to sustainable tourism, and **will consist also in the realization and capitalization of a policy paper**, that will provide to Regional and National governments recommendations and guidelines for including the implementation of the ConsumelessMed tourism model within their policies, plans and programmes related to sustainability and the development of the tourist sector. A specific

document will be produced and included into the proposed model, together with the label communication plan.

3 IMPLEMENTATION STRATEGY OF THE CONSUMELESSMED MODEL

3.1 Involvement of local stakeholders

The involvement of local stakeholders in the development of the ConsumelessMed tourism model is a key element of the implementation approach, as the success of the model relies on the widespread implementation of the model actions in the tourist locations: the more tourism service providers (hotels, restaurants, cafes, beach resorts etc.) will implement the ConsumelessMed label and the more tourists and citizens will contribute to the storytelling, the more the ConsumelessMed approach will be visible, effective in reducing the tourists environmental pressures and successful.

A reference list of local stakeholders that is important to involve in the project implementation, with a short description of their expected role, is provided in the following:

- **Municipality staff and decision makers**: this stakeholders category is strictly essential, as the implementation of the model must be first of assumed as a direct commitment by the local authority and its full implementation requires the set-up of a specific working group within the Municipality technical staff and a clear political commitment of the Municipality Council.

- **Trade and Tourism business associations:** the involvement of this stakeholders category can be very helpful for engaging the tourism service providers in the implementation of the ConsumelessMed label. These associations can be relevant members of the ConsumelessMed label committee, i.e. the committee responsible for managing and monitoring the implementation of the ConsumelessMed label.

- **Public or private companies responsible for waste, water and energy management:** this stakeholders must be involved in order to gain their support in the implementation of the actions foreseen in the ConsumelessMed model for saving waste, water and energy, and more in general in promoting a sustainable management approach in the delivery of the waste, water and energy services at local level. As in the case of the Trade and Tourism business associations, they can be relevant members of the ConsumelessMed label committee.

- **Public or private companies/organizations responsible for managing most relevant tourism attractions in the pilot areas (i.e. museums, natural parks etc**.): the involvement of this stakeholders category can be effective for the implementation of the communication campaign, as they can effectively support the delivery of the consume-less massages and promotional/informative materials to the tourists.

- **Environmental Protection Agencies**: the involvement of this stakeholders category can be helpful for fine tuning the implementation strategy of the ConsumelessMed model in the specific local contexts, as they can provide useful information about the main environmental problems that need to be taken into account, as well as the main natural resources and ecosystem services that need to be enhanced or protected.

- **Environmental NGOs**: the involvement of this stakeholders category can be very helpful for the implementation of the communication activities, as they can support the effort of the municipality in the commitment for reducing the environmental pressures of tourism and for promoting a sustainable use of the natural resources. As in the case of the Trade and Tourism business associations, they can be relevant members of the ConsumelessMed label committee, or they can be engaged in the organization of specific communication initiatives (atypical events, storytelling etc.).

- **Tourism agencies and tour-operators:** the involvement of this stakeholders category can be very helpful for developing the territorial marketing strategy and for disseminating the promotional materials of the ConsumelessMed brand developed at local level, within the communication campaign.

- **Tourism service providers:** they are core stakeholders of the ConsumelessMed model, as they must be involved in the implementation of the ConsumelessMed label by their sites: hotels, B&B, residences, camping sites, cafes, restaurants, beach resorts.

3.2 Steps of the implementation process

The following steps are identified:

1. **Step 1 – Context analysis and preliminary proposal of the Action plan for the implementation of the model**. Within this step, the organization(s) committed to the implementation of the model (project partners and/or associated partners in the MED Consume-less testing phase) must collect data and information about the peculiarities of the tourism location, with reference to the tourism profile, main environmental resources and tourist attractions, management of waste, water and energy (see check-list for data collection provided in Annex 1). Based on these data and taking into account the general guidance for the implementation of the ConsumelessMed tourism model (the present document), they must then prepare a preliminary proposal of the Action plan for the implementation of the model in the specific tourism location. The Action plan defines in detail the specific activities, timing, roles, responsibilities foreseen for the implementation of the ConsumelessMed model in the tourism location.

2. **Step 2 – Involvement of local stakeholders for the fine-tuning and approval of the Action plan**. Within this step, the organization(s) committed to the implementation of the model must engage key local stakeholders in the implementation process, i.e. local authorities, organizations or associations that have a strategic role for the implementation of the model and can support the promoting organization(s) in coordinating the implementation of the model. These stakeholders will be invited to take part inaConsumelessMed label committee, that will manage and monitor the implementation of the model in the tourism location. During this step, they will be invited in particular to participate to a training workshop aimed at providing to the participants the needed know-how for developing the model and at fine-tuning the preliminary proposal of the Action plan defined in step 1. An indicative programme for the training workshop is provided in Annex 2.

3. **Step 3 –Design of the demonstrative measures and of the communication campaign and related tools.** Within this step, two different actions must be implemented

by the organization responsible for the implementation of the model in the tourism locations:

- selection of the demonstrative measures to be realized in the tourism location (they can be one or more measures and they can be related to the management of one or more resources – i.e. water, energy, waste – even though within the project testing phase, each pilot municipality will have to implement just one measure related to one of the issues), executive design of the needed infrastructures and/or purchase of the needed equipment;

- detailed design of the communication initiatives and tools to be realized at local level, based on the communication kit described in previous §2.3.5, but personalized according to the local specific needs; printing/purchasing of the communication materials and tools.

4. **Step 4 – ConsumelessMed agreement for the implementation of the model and launch of the implementation phase.**The commitment of the municipality and of each key local stakeholder involved will be clearly defined within a specific agreement, that will be signed by the ConsumelessMed label committee within a public event, that will launch the implementation phase of the model in the tourism location. The launch event can be either a press conference or any other kind of public initiative, aimed at presenting to the local community, with particular reference to the tourism service providers, the commitment of the Municipality and of the other supporting organizations for the implementation of the ConsumelessMed tourism model. The event will be the occasion to start collecting expressions of interest from the tourism service providers for the implementation of the ConsumelessMed label by their sites.

5. **Step 5 – Training of the tourism service providers for the implementation of the Action plan**. Within this step, the ConsumelessMed label committee will organize informative initiatives aimed at involving the tourism service providers in the implementation of the model and collecting their expressions of interest for the application of label. Specific training workshops will be then organized for each type of tourism service providers, for presenting and discussing the label criteria that they will have to implement in their facilities for obtaining the ConsumelessMed label. The tourism service providers that will confirm their interest in applying the label, will be then asked to subscribe aConsumelessMedletter of commitment or adhesion form. An helpdesk will be organized by the ConsumelessMed label committee in order to support the tourism service providers in applying the label.

6. **Step 6 – Implementation and monitoring of the Action plan**. After the signing on the agreement by the facilities implementing the ConsumelessMed label, the testing phase of the model will officially start. All the project actions will be implemented and monitored according to the procedures defined in the present Guidance and in the local Action plan. The demonstrative measures will be also implemented during this phase, by realizing the public works needed and by installing the purchased equipment. The communication campaign will be implemented as well.

The detailed description of the activities foreseen and of the related outputs in each step of the implementation process will be defined step by step, during the testing phase of the MED

Consume-less project, and will be finally described in detail within the present guidance, taking into account the results achieved in the pilot areas and the effectiveness of the proposed approaches.

3.3 Indicative time plan

The following time-plan is defined with reference to the testing phase of the ConsumelessMed model foreseen in the MED Consume-less project in the 6 project pilot areas (Gozo, Ragusa, Realmonte, Naxos, Saranda, Velez-Malaga), within Work package n. 3 (Testing). The time-plan is defined with reference to the six implementation steps defined in the previous paragraph.

CONSUMELESSMEDTOURISM MODEL – IMPLEMENTATION PHASE IN THE PILOT AREAS	2017												2018		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Step 1 – Context analysis and preliminary proposal of the Action plan for the implementation of the model	■	■	■												
Collection of data and information for the context analysis	■														
Preliminary proposal of the Action plan		■	■												
Step 2 – Involvement of local stakeholders for the fine-tuning and approval of the Action plan		■	■												
Informative initiatives for engaging key local stakeholders		■													
Training workshop aimed at provided know-how and fine-tuning the action plan			■												
Step 3 – Design of the demonstrative measures and of the communication campaign and related tools															
Selection and design of the demonstrative measures			■	■	■	■									
Detailed design and realization of the communication materials			■	■	■	■									
Step 4 – ConsumelessMed agreement for the implementation of the model and launch of the implementation phase				■	■										
Definition and signing of the agreement by the ConsumelessMed label committee				■	■										
Launch event					■										
Step 5 – Training of the tourism service providers for the implementation of the Action plan					■	■									
Step 6 – Implementation and monitoring of the Action plan							■	■	■	■	■	■	■	■	■

ANNEX 1 - DATA REQUIRED FOR THE ANALYSIS OF THE FRAMEWORK CONDITIONS IN EACH PILOT AREA

Contact Information

CONSUMELESSMED Pilot City/Territory	XXX	
Main Contact Person:	Name:	
	E-Mail:	
	Phone-Nr.:	
	Organization/ Authority:	
	Position/ Function	

Tourist profile

Type of tourism (please tick the most appropriate types)	Provide a short description of main tourist attractions in the Pilot City/Territory
o Sun & beach o Cultural o Religious o Natural o Other [Specify …..]	[*short description – max 1000 characters*]

Consumeless   Consumeless

General information on waste, energy and water management in the CONSUMELESSMED pilot cases

Please answer the following general questions:

WASTE MANAGEMENT[2]

1. **Waste prevention and reuse actions:** are there some **waste prevention or reuse actions** active in the area of the CONSUMELESSMED pilot case? (For example: home composting, food waste prevention initiatives, reuse centres and others) (Please, shortly describe the actions in place)

2. **Municipal waste collection:**

   a. Who is responsible for the collection of Municipal Solid Waste (MSW)? Only the local waste management authority (public utility service)? The local waste management authority together with partners from the private sector? Only private enterprises on behalf of the local waste management authority? Which waste streams are collected by public utility, which are collected by private enterprises (on behalf of the local waste management authority)?

   b. Does waste collection by the local waste management authority cover only households or also similar establishments producing waste similar to household waste (e.g. schools, offices, public institutions, hotels, tourist establishments …)?

   c. Is the waste collection service reinforced or changed during the year according to the touristic flows?

   d. Are the bins / containers tagged e.g. with a chip or optical code and linked to a specific location / customer? Is there a PAYT charging system in place?

   e. **Details of waste collection:**
      i. Which **types of waste** are separately collected? (e.g. paper and cardboard, glass, plastics, metals, food and garden waste, clothing/textiles, hazardous waste, co-mingled fractions of recyclables (e.g. metals and plastics are collected together)

      ii. Which **collection system** is used for which type of waste? (i.e. For which types of waste there is a door-to-door collection? For which types of waste fractions there is a street bin system? In case of door-to-door collection, which is the weekly calendar?)

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[2]*In our project the main focus is on municipal solid waste (MSW) which is defined as waste from households or similar establishments (e.g. commercial activities, office buildings, institutions such as schools and government buildings and small businesses) that produce waste similar (in quantity and quality) to household waste (definition in Annex II). Usually, MSW is collected by the municipality or on behalf of the municipality. Nevertheless, for our project it is also important to know if tourist establishments (e.g. hotels, restaurants, camping sites, marinas etc.) are not covered by municipal collection in the pilot case areas, but disposed via other waste collection and disposal systems.*

Consumeless   Consumeless

iii. Are there **other options** available to give away certain types of waste? (e.g. provide clothing to charities, return certain types of waste (e.g. batteries, worn shoes, worn clothes …) to retailers, etc. …)

f. **Details of waste treatment:** Please define the treatment / recycling for each collected waste fraction (including residual waste).

3. **Collection of waste from tourist establishments** (Hotels and similar accommodation (e.g. hostels, Bed&Breakfast), restaurants, camping sites, marinas, public structures such as museums, other tourist establishments important in your area):

a. Is the collection of waste from tourist establishments covered by municipal waste collection?

b. If the collection of waste from tourist establishments is not covered by municipal waste collection, please answer the following questions:

i. **Who is responsible** for the collection of waste (local waste management authority, private enterprises, combination …)?

ii. Which **typesof waste** are separately collected from the different types of establishments? (Don't forget special systems for kitchen waste!)

iii. What kind of **collection system** is used for the different fractions?

iv. How are the different fractions **treated?**

4. **Touristic ships** *(if relevant in the pilot city/territory)*

a. Are the **amounts of waste from** touristic ships[3] included in municipal waste figures?

b. **Collection and disposal** of waste from touristic ships:

i. **Waste fractions**: Do touristic ships dispose only one (residual, mixed) waste fraction or do they dispose different waste fractions (e.g. residual waste, paper, metals …)? If yes, which different waste fractions do they dispose? How are these fractions **treated** (e.g. sorted prior to further treatment, incineration, landfill)?

ii. Is waste from touristic ships covered by the waste collection of the local waste management authority?

1. If yes: Is waste from touristic ships collected separately or together with waste from households?

2. If no: Who is responsible for the collection of waste from touristic ships if it is not the local waste management authority?

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[3]The term "**Touristic ships**" embraces all types of ships of different size that come from somewhere else and bring tourists to the pilot case area (e.g. cruise ships). Small boats that only offer sightseeing cruises on local rivers, channels or along local coast lines (e.g. "boat sightseeing" such as Gondola rides in Venice) are not included.

5. **Has the municipality set any specific target as to waste prevention, selective collection and recycling?** (please briefly describe, or provide any document describing the Municipality policies related to Municipal Waste Management)

6. **Which are the main criticalities in Municipal Waste Collection related to tourist flows?** (please briefly describe)

WATER MANAGEMENT

1. **Water Management:** Who is responsible for water management in the Municipality? The local water management authority (public utility service)? The local water management authority together with partners from the private sector? Only private enterprises on behalf of the local water management authority?

2. **Water sources:** Which are the main water sources of the aqueduct water supply system?

3. **Has the municipality set any specific target as to water consumptions and uses?** (please briefly describe, or provide any document describing the Municipality policies related to Municipal Water Management)

4. **Which are the main criticalities in Municipal Water Management? Which could be related to tourist flows?** (please briefly describe)

   - Drought and water shortage: …

   - Water pollution: …

   - Other [*specify*]: …

ENERGY MANAGEMENT

5. **Energy Management:** Who is responsible for energy management in the Municipality? The local energy management authority (public utility service)? The local energy management authority together with partners from the private sector? Only private enterprises on behalf of the local energy management authority?

6. **Has the municipality set any specific target as to energy consumptions, GHG emissions, use of renewable energy? Maybe in the framework of the Covenant of Mayors?** (please briefly describe, or provide any document describing the Municipality policies related to Municipal Energy Management, i.e. the Sustainable Energy Action Plan of the Covenant of Mayors or any other energy related programme)

7. **To what extent renewable plants have been developed in your pilot case area? Are they big plants or little plants spread throughout the territory?** (please briefly describe)

8. **Which are the main criticalities in Municipal Energy Management? Which could be related to tourist flows?** (please briefly describe)

TOURISM RELATED AND OTHER GENERAL ISSUES

1. **Seasonal variation of tourism:**
   Does the pilot case area have a seasonal variation in tourism? Please state the months of high season.

2. **Private part time accommodation:**
   Do the official numbers on tourists include tourists staying in private part time accommodations (e.g. B&B, Airbnb)? If not, are there estimations for the number of tourists that stay in such accommodations available for the CONSUMELESSMED pilot case?

3. **Touristicships** *(if relevant in the pilot city/territory)***:**

   a. Are tourists that stay more than one day in the respective CONSUMELESSMED pilot case area but sleep on the ship included in the total number of overnight stays?

   b. Are tourists arriving by ships included in the official municipal tourist numbers?

   c. How many percent of total tourists arrive by ships?

4. Are there any **statements / voluntary agreements to reduce energy and water consumptions and waste generation** by tourist facilities or other tourist service providers? (This means, for example, statements / voluntary agreements for the commitment to implement water and energy saving and waste prevention best practices in hotels, restaurants and other tourist facilities. This might be associated with the assignment of labels from national or internationally recognized labelling schemes (e.g. EU Flower, ISO, Green Key, Nordic Swan etc. (but not just own labels within chain of hotels etc.) and/or discounts in the municipal fees for public services)?

5. **Is there any policy in place for promoting a sustainable tourism in the pilot case area?** (please briefly describe)

6. **Which are the main information and communication initiatives and tools in place targeting tourists?** (please briefly describe)

Specific data required

Waste, water and energy related data requirements

Data Requirements	
Required Data (Sets)	**Unit**
Waste Quantities	
Municipal solid waste (MSW) (total amount per year)	[t] at least last 5 years
Municipal solid waste (MSW) (total amount per month for the last year available)	[t]
Separately collected MSW(total amount per year)	[t] at least last 5 years
Separately collected MSW (total amount per month for the last year available)	[t]
Separately collected MSW per waste type(total amount per year for the last year available):	
- Paper and cardboard	[t]
- Glass	[t]
- Metals	[t]
- Plastics and compounds (e.g. multilayer packaging)	[t]
- Other recyclables (e.g. textiles, wood)	[t]
- Organic waste	[t]

Data Requirements	
Required Data (Sets)	**Unit**
- Green waste	[t]
- WEEE	[t]
- Bulky waste	[t]
- Hazardous waste	[t]
- Other waste fractions (specify)	[t]
Street sweeping waste (total amount per year for the last year available)	[t]
(If available) **Solid waste** from **bins at beaches (total amount per year for the last year available)**	[t]
(If available) **Waste** generated by **touristic ships (total amount per year for the last year available)**	[t]
Water	
Potable water consumption (total amount per year)	$[m^3]$ at least last 5 years
Potable water consumption per user category (total amount per year for the last year available):	
- Potable water consumption of residential buildings	$[m^3]$
- Potable water consumption of tertiary buildings, equipment/facilities	$[m^3]$
- Potable water consumption for other use	$[m^3]$
Energy	
Electricity consumption (total amount per year)	[kWh] at least last 5 years
Electricity consumption per user category (total amount per year for the last year available):	
- Electricity consumption of residential buildings	[kWh]
- Electricity consumption of tertiary buildings, equipment/facilities (Total)	[kWh]
- Electricity consumption for other use (agriculture, industry, ecc.)	[kWh]
Heating, cooking and sanitary water consumption per energy source (total amount per year)	
Natural gas	$[m^3]$ at least last 5 years
Heating oil	[t] at least last 5 years
LPG (Liquid petroleum gas)	[t] at least last 5 years
• **Heating consumption of residential buildings (total amount per year for the last year available)**	
Natural gas	$[m^3]$
Heating oil	[t]
LPG (Liquid petroleum gas)	[t]
• **Heating consumption of tertiary buildings, equipment/facilities (total amount per year for the last year available)**	
Natural gas	$[m^3]$
Heating oil	[t]
LPG (Liquid petroleum gas)	[t]
Renewable energy plants installed (total amount)	[kW] at least last 5 years

Data Requirements	
Required Data (Sets)	**Unit**
- Solar thermal (installed power or total plants surface)	[kW or m^2]
- Solar photovoltaic (installed peak power or total plants surface)	[kW or m^2]
- Biomass	[kW]
- Wind	[kW]
- Geothermal	[kW]
- Other	[kW]

Data requirements on factors influencing energy and water consumptions and waste generation

Data Requirements	
Required Data (Sets)	**Unit**
Description of the city / region	
Total local resident population	[Number]
Total Area	[km^2]
Total Beach Area	[km^2]
Total number of households	[Number]
Number of second homes (vacation homes)	[Number]
Economy	
Operating units by sectors (total number per year for the last year available)	
- Sector Agriculture (NACE Rev.1 A, B)	[N]
- Sector Industry (NACE Rev.1 C-F)	[N]
- Sector Services (NACE Rev.1 G-P)	[N]
Economically active persons by sectors (percentage breakdown for the last year available)	
- Sector Agriculture (NACE Rev.1 A, B)	[%]
- Sector Industry (NACE Rev.1 C-F)	[%]
- Sector Services (NACE Rev.1 G-P)	[%]

Tourism related data requirements

Data Requirements	
Required Data (Sets)	**Unit**
Variables for (accommodation) capacity	
Number of tourist accommodation establishments by accommodation type - split into different types of tourist accommodation such as: hotels and similar accommodation; holiday and other short-stay accommodation; camping grounds, recreational vehicle parks and trailer parks	[Number/ type]
- Share of tourist accommodation establishments that are open all year	%

Data Requirements	
Required Data (Sets)	**Unit**
Number of tourism accommodation establishments that are labelled with national or internationally recognized labelling schemes - split into different types of tourist accommodation such as: hotels and similar accommodation; holiday and other short-stay accommodation; camping grounds, recreational vehicle parks and trailer parks	[Number/ type]
Number of bed places by accommodation type - split into different types of tourist accommodation such as: hotels and similar accommodation; holiday and other short-stay accommodation; camping grounds, recreational vehicle parks and trailer parks	[Number/ type]
Variables for occupancy	
Total number of tourist arrivals at the CONSUMELESSMED pilot case area	[Number]
- by domestic tourists	[Number]
- by international tourists	[Number]
Number of nights spent (overnight stays) in total	[Number]
- Nights spent by domestic tourists	[Number]
- Nights spent by international tourists	[Number]
- Number of nights spent in different types of accommodation	[Number/type]
Average length of stay	[Days]

ANNEX 2 – INDICATIVE PROGRAMME FOR THE TRAINING WORKSHOPS AIMED AT FINE-TUNING THE ACTION PLAN FOR THE IMPLEMENTATION OF THE MODEL IN THE SPECIFIC TOURISM LOCATIONS

Scope of the activity

The activity consists in the organization of one training workshop in Velez-Malaga, targeted toproject partners' staff and other key actors that will support the testingphase.

The training workshop has two main objectives:

1. to provide to the staff of the partners' responsible for the pilot implementation of the CONSUMELESSMED tourism model and to other key actors the know how needed to guide and support the implementation process;
2. to discuss and fine tune the Action Plan for the implementation of the CONSUMELESSMED tourism model in the pilot case.

Target group of the training workshop

The training is conceptualized for about 20 participants in each pilot area.

The participants are expected to be the following:

- Decision makers and technical staff of the Municipality;
- Staff of the project partner responsible for supporting the pilot municipality in the implementation process and of other project partners of reference for the pilot area;
- Representatives of local associations, organizations, institutions whose involvement is important for a successful implementation of the CONSUMELESSMED tourism model and that could be also involved in the committee for managing the implementation of the CONSUMELESSMED label. Indicative but non exhaustive list:
  - o Tourism and/or Trade associations and organizations;
  - o Public or private companies responsible for waste, water and energy management;
  - o Public or private companies/organizations responsible for managing most relevant tourism attractions in the pilot areas (i.e. museums, natural parks etc.);
  - o Environmental Protection Agencies;
  - o Environmental NGOs.

Organization of the training workshop and logistical set up

Logistics and materials needed:

- seminar rooms with movable furniture and natural light: at least 1 plenary room and one secondary room, in order to have the possibility to organize participants in two separate working groups for the "interaction" sessions.
- projector, laptop/computer and wi-fi connection, at least in the plenary room;
- pin walls, pins, brown paper;
- flipchart, flipchart paper, pens, big tip markers and post-it in different colours.

Indicative programme of the Training Workshop

[Location, date]	
09:30-10.00	Participants registration and welcome greetings
10:00-10:15	The MED Consume-less project and the pilot area specific context (Presentation)
10:15-10:30	Presentation of the participants (Interaction)
10:30-11:30	The ConsumelessMed tourism model: concept, components and tools, implementation approach (Presentation + Question & Answers)
11:30-11:45	Coffee Break
11:45-13:15	Peculiarities for the implementation of the model in the pilot area ▪ presentation of specific issues related to the implementation of the model in the pilot area (Presentation) – 15 min ▪ participatory SWOT analysis about the implementation of the model in the pilot area (Interaction / working groups) – 45 min ▪ discussion on strengths and weaknesses (Interaction) – 30 min
13:15-14:15	Break for Lunch
14:15-15:00	The local action plan for the implementation of the model in the pilot area ▪ implementation steps, tools and initiatives, roles and responsibilities (Presentation) - 30 min ▪ question & answers on the proposal (Interaction) - 15 min
15:00-16:30	Fine-tuning of the local action plan for the implementation of the model in the pilot area ▪ participatory design of the implementation strategy in the pilot area (Interaction / working groups) – 60 min ▪ presentation and discussion of the results of the working groups – 30 min
16:30-17:00	Conclusions and next steps

Consumeless   Consumeless