











based on a decision of the German Bundestag

















#### International Conference

## "Contribution of sound waste management systems to sustainable tourism and the protection of marine ecosystems"

Contribution of TouMaLi for sound waste management systems and sustainable tourism; 11/10/2022

Dr Gasser E. Hassan, Local Project Manger, TouMaLi AASTMT

Mr. Ahmed Tawfik, R&D Manger, Nahdet Misr Co.













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### **Alexandria Waste Management System**

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TouMaLi Company Egypt – An organizational approach towards more sustainable Tourism

Contribution of TouMaLi for sound waste management systems and sustainable tourism; 11/10/2022

Dr Gasser E. Hassan, Local Project Manger , TouMaLi AASTMT

Mr. Ahmed Tawfik, R&D Manger , Nahdet Misr Co.



#### Evaluation and identification of pilot areas

Alexandria is selected to be the pilot area (the most populated city on the Mediterranean (about 6 Millions) with high rate of local and international tourism activities.

|           | Please insert here:   |           |            |                |                    |         |              |
|-----------|---|-----------|------------|----------------|--------------------|---------|--------------|
|           | Criteria  | Weighting | Alexandria | Masrsa Matrooh | Egypt<br>Port Said | Hurgada | Sharm Elshik |
| General:  | coastal toursim area  |           | 3          | 3              |                    | 3       | 3            |
|           | located at the Mediterranean Sea  |           | 3          | 3              |                    | 3       | 1            |
|           | at least 15-20 hotels   |           | 3          | 3              |                    | 2       | 3            |
|           | accessibillity (international airport and car rental                        |           | 3          | 2              |                    |         | 3            |
|           | Urgency - relevant plastic pollution  |           | 3          | 2              |                    | 2       | 2            |
|           | Data availability   |           | 2          | 2              |                    | 2       | 3            |
|           | Feasibility   |           | 3          | 2              |                    | 3       | 2            |
|           | Representativity  |           | 3          | 2              |                    | 2       | 2            |
|           | availability of local stakeholders  |           | 3          | 3              |                    | 3       | 3            |
|           | well accessible sand beaches (min. 2 km)                                    |           | 3          | 3              |                    | 2       | 3            |
|           | rural/remote beach close by (20-30 km)                                      |           | 3          | 3              |                    | 2       | 3            |
|           | sport boat marina   |           | 3          | 3              |                    | 3       | 3            |
|           | temporaray beach wrack accumulation   |           | 3          | 3              |                    | 2       | 3            |
|           | cooperation with existing waste management sector                           |           | 2          | 2              |                    | 2       | 3            |
|           |   |           |            |                |                    |         |              |
|           | local partner support   |           | 3          | 2              | !                  | 3       | 2            |
|           | governmental/ministry support   |           | 3          | 3              |                    | 3       | 3            |
|           | municipality support  |           | 3          | 3              |                    | 3       | 3            |
|           | community support   |           | 3          | 3              |                    | 3       | 3            |
| Knockout: | Hotel association support   |           | 3          | 2              |                    | 2       | 3            |
|           | hotel support   |           | 3          | 3              |                    | 3       | 3            |
|           | all aspects in one site   |           | 3          | 2              |                    | 3       | 2            |
|           | mitigation measures implemented for 1 year and beyond                       |           | 2          | 2              |                    | 2       | 2            |
|           |   |           |            |                |                    |         |              |
| Welcome:  | nature protected or enclosed sea areas (e.g. lagoons)                       |           | 3          | 3              |                    | 3       | 3            |
|           | defined, identifibale and accessible pathways (rivers, waste water outlets) |           | 3          | 2              |                    | 3       | 1            |
|           | previous monitoring prorgams  |           | 2          | 1              |                    | 1       | 3            |
|           |   |           | 1          |                |                    |         |              |

























# TॡuMaLi

## Inclusion of Nahdet Misr Co. (Waste Management Co. in Alexandria) as a main partner in TouMaLi

MOU has been signed between AASTMT and Nahdet Misr Company as the waste management company in Alexandria and TouMaLi is one of the main parts of this MOU































### **Company Establishment**

- The idea is approved between the AASTMT and Nahdet Misr Co. during the signature of the MOU.
- A meeting is held at Nahdet Misr Headquarter in Alexandria on 31<sup>st</sup> March 2022

#### Attendee:

- Dr Abdullah Nasour
- Dr Matias
- Dr. Christophe Pautrat
- Mr. Spestian
- Mr. Ahmed Tawfiq
- Prof. Alaa Abdel-Bary
- Dr Gasser E. Hassan





#### Main points discussed:

Paper work, Business model and feasibility study should be started as soon as possible as a preparation for company formal announcement during the TouMali conference, Oct 2022, Alexandria.

























### Site Visit NAHDET Misr Alexandria May 2022



































# Sorting of Hotels/ Beaches waste NAHDET Misr Alexandria Sep 2022







































# Data collection for Waste Composition in the pilot Area Alexandria Hotels / Beaches



Collection is done from 5 Hotels for 4 days
Total average amount received 1200 kg/day
Sampling size (average) 520 kg/day

Physical Composition:

Average Recyclables = 19%

|    | Classification                             | Average<br>Composition |
|----|--|------------------------|
| 1  | Ferrous metals                             | 1%                     |
| 2  | Non-ferrous metals                         | 1%                     |
| 3  | Paper/Cardboard                            | 5%                     |
| 4  | Glass                                      | 2%                     |
| 5  | Plastic Packaging                          | 10%                    |
| 6  | Other plastics (no packaging)              | 0%                     |
| 7  | Organics                                   | 54%                    |
| 8  | Wood                                       | 0%                     |
| 9  | Clothing textiles                          | 0%                     |
| 10 | Minerals                                   | 0%                     |
| 11 | Composite Waste                            | 0%                     |
| 12 | Hazardous Materials                        | 0%                     |
| 13 | Residues (Ruber-<br>leather-Hygiene) (RDF) | 26%                    |
|    | Total                                      | 100%                   |

























# Data collection for Waste Composition in the pilot Area Alexandria Hotels / Beaches



Collection is done from Beaches (at the gate) for 4 days
Total average amount received 1000 kg/day
Sampling size (average) 350 kg/day

Physical Composition:

Average Recyclables = 4 %

|    | Classification   | Average<br>Composition |
|----|--|------------------------|
| 1  | Ferrous metals   | 0%                     |
| 2  | Non-ferrous metals   | 0%                     |
| 3  | Paper/Cardboard  | 1%                     |
| 4  | Glass  | 1%                     |
| 5  | Plastic Packaging  | 2%                     |
| 6  | Other plastics (no packaging)                              | 0%                     |
| 7  | Organics   | 13%                    |
| 8  | Wood   | 0%                     |
| 9  | Clothing textiles  | 1%                     |
| 10 | Minerals   | 0%                     |
| 11 | Composite Waste  | 0%                     |
| 12 | Hazardous Materials  | 0%                     |
| 13 | Residues (Ruber-<br>leather-Hygiene) (Land<br>fill reject) |                        |
|    | Total  | 100%                   |





































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