SMART CITY SOLUTIONS

MDT-tex®

Membranes & Structures

MDT-TEX SHORT FACTS

INTRODUCTION

MDT manufactures and supplies innovative sun and rain protection canopy systems for urban usage to customers all around the world. Our products which include storm safe umbrellas and textile architectures, enable to build inclusive, healthy, functional and productive cities. Employing our 20 years experience in product development which include technical textiles and smart features, we meet the demand of sustainable cities.

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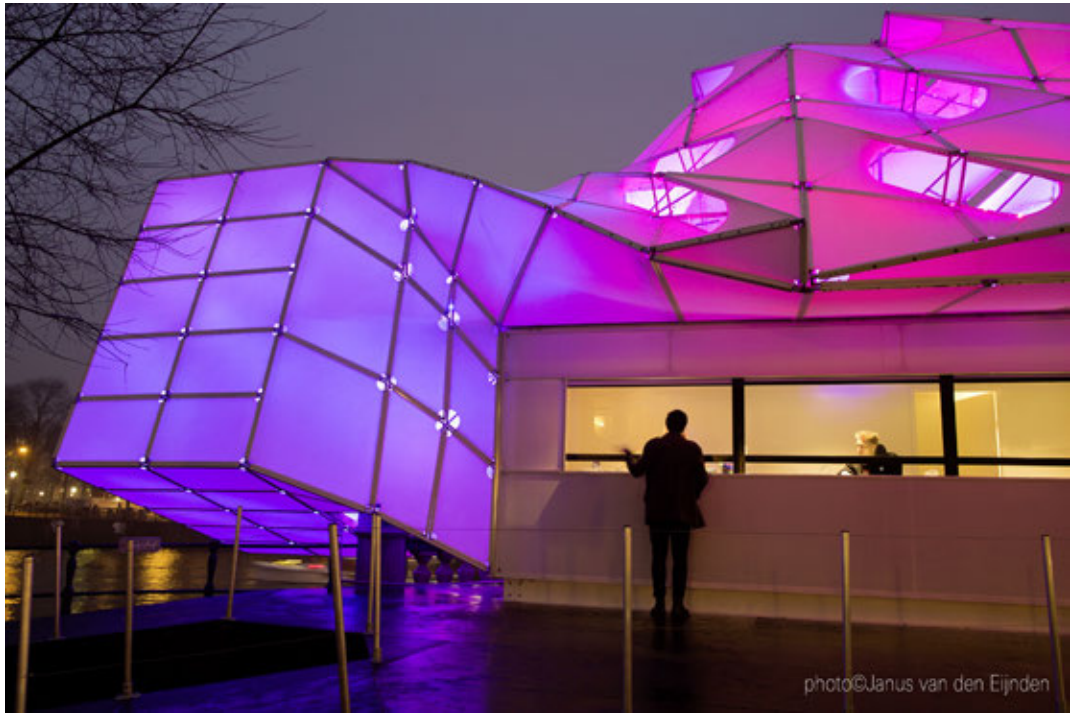
MODULAR STRUCTURES

EYE BEACON
PAVILION

Design: The Eye_Beacon, originally used as a ticket booth for Amsterdam light festival, has the ability to revitalize public spaces with its unique design. Now it has found usage in various urban disciplines, starting from cultural events to information distribution center. Its capability of installing it within one day, makes it even a great shelter for temproray usage.

For The structure, two cube forms are connected to one another by twisting surfaces. This results in 316 panels with uneven dimensions and therefore required the parametric optimisation of these surfaces to ensure efficient fabrication and installation. Focused LED projections present gradient color changes on the inside of the tensile structure, resulting in a constantly changing composition of light and colour.

Partner: Designed by our Partner UNStudio, Amsterdam



TENSILATION
MODULAR CANOPY SYSTEM

Design: The Tensilation (Type EV series) canopy represents a major shift in the concept of shelter systems. It offers both the flexibility that comes with modular canopies and the engineering advantages of a unified structure. The system can be used independently for events or annexed to buildings or marquees to deal quickly with changes in crowd size. Square and diamond shaped canopies connect together in a flexible variety of configurations that create an elegant overall impression. The multi use aspect of the Tensilation system makes it a great solution for walkway sheltering, event hosting or urban landscaping.

Partner: Designed by MDT and Grimshaw Architects

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SOLAR STRUCTURES

SOLAR UMBRELLA

SOLAR UMBRELLA

Functions

Mobile device charging
Wifi-area
Mist systems for sustainable cooling
Illumination

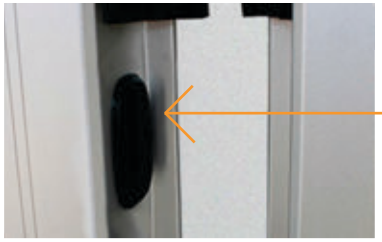
FOLDABLE
Structure

Opened and Closed view

Remote control operation
Organic design
Vandalism secure

SOLAR UMBRELLA

Energy receiving unit



Energy transfer unit

ACCESSORIES

SOLAR UMBRELLA

SEATING CUBE

EUCALYPTUS WOOD

TORUS TABLE

OUTDOOR WORKING SPACE

WORK and **CHARGE YOUR DEVICE**

Reference: **I-DOCK, AMSTERDAM 2014**
Type E 3m, 4m and 5m round, Tulip umbrella

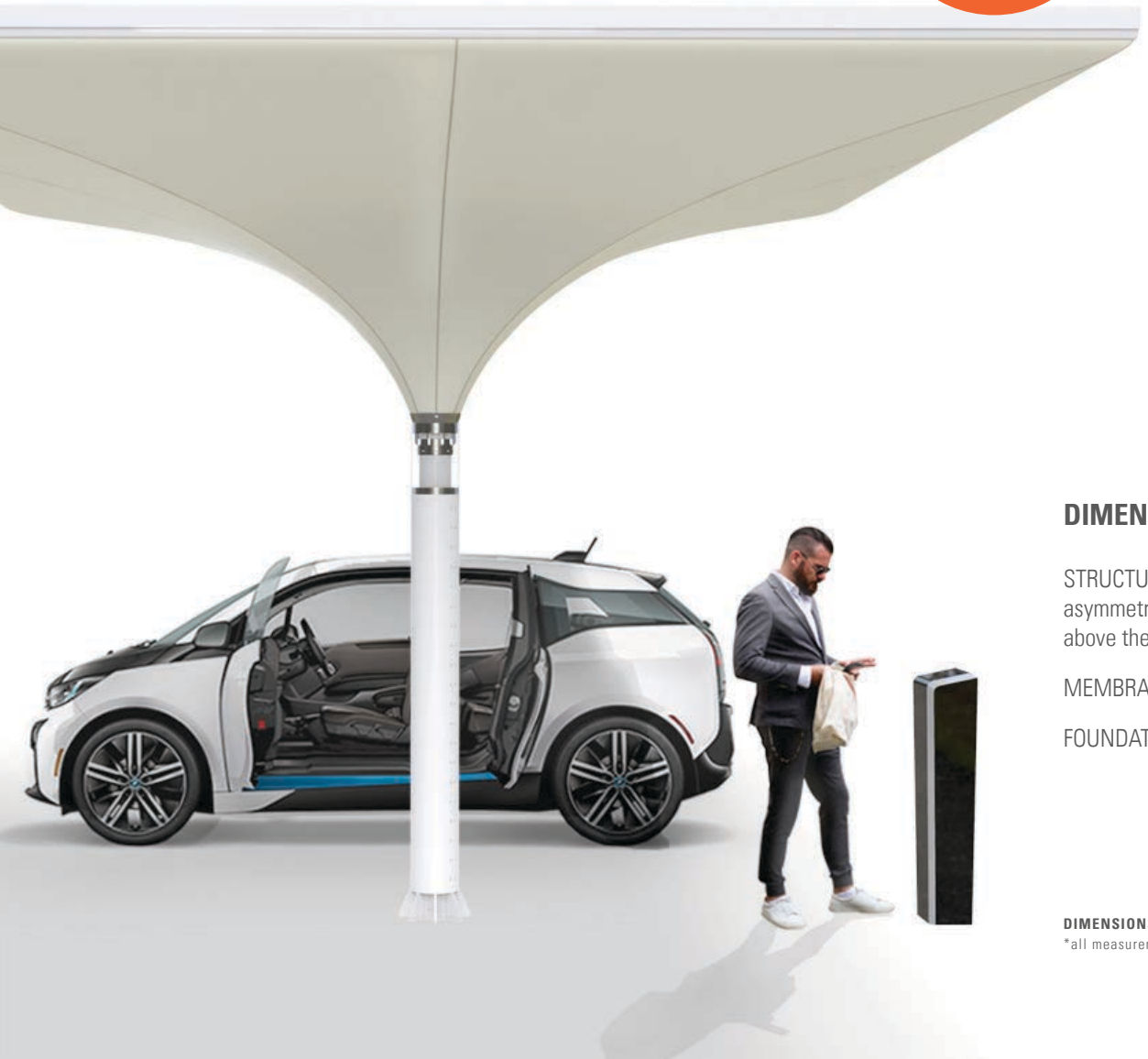
2

SOLAR STRUCTURES

SOLAR CARPORT

SOLAR CARPORT
SYMMETRIC

FIXED
Structure



Tulip-shaped shade structure

In a new development the tulip-shaped shade structures are transformed into solar ports capable of harvesting solar-energy and rainwater.

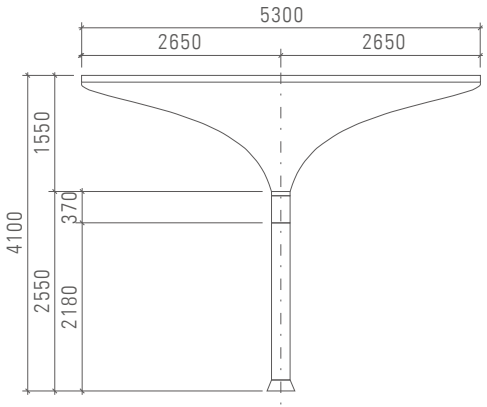
The 5.3 x 5.3 m square structure having central mast can serve as shelter for two cars. Given its modular design, several structures can be placed next to each other in a linear or group configuration.

DIMENSIONS

STRUCTURE: Fixed, steel structure with asymmetric mast and photovoltaic modules above the membrane

MEMBRANE: PVC 650 g/sq.m

FOUNDATION 1.8 x 1.8 x 1.8 m
Reinforced concrete



DIMENSIONS ARE IN MILLIMETERS
*all measurements are rounded

SOLAR CARPORT
SYMMETRIC

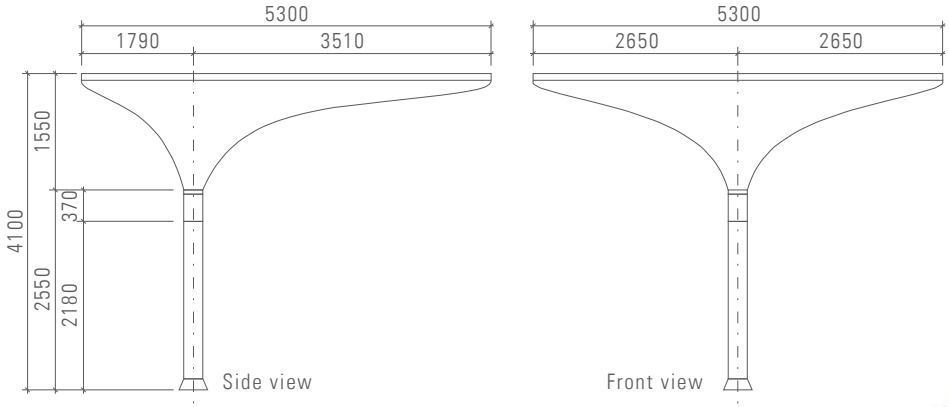
Each solar port can be equipped with up to 15 standard solar panels - each approx.170x100 cm and containing 60 cells.

Depending on the location and available infrastructure, the harvested energy can be fed into electrical grid or stored in battery banks to be used when required.

SOLAR CARPORT
ASYMMETRIC

FIXED
Structure

DIMENSIONS



STRUCTURE:	Fixed, steel structure with asymmetric mast and photovoltaic modules above the membrane
MEMBRANE:	PVC 650 g/sq.m
FOUNDATION	1.8 x 1.8 x 1.8 m Reinforced concrete

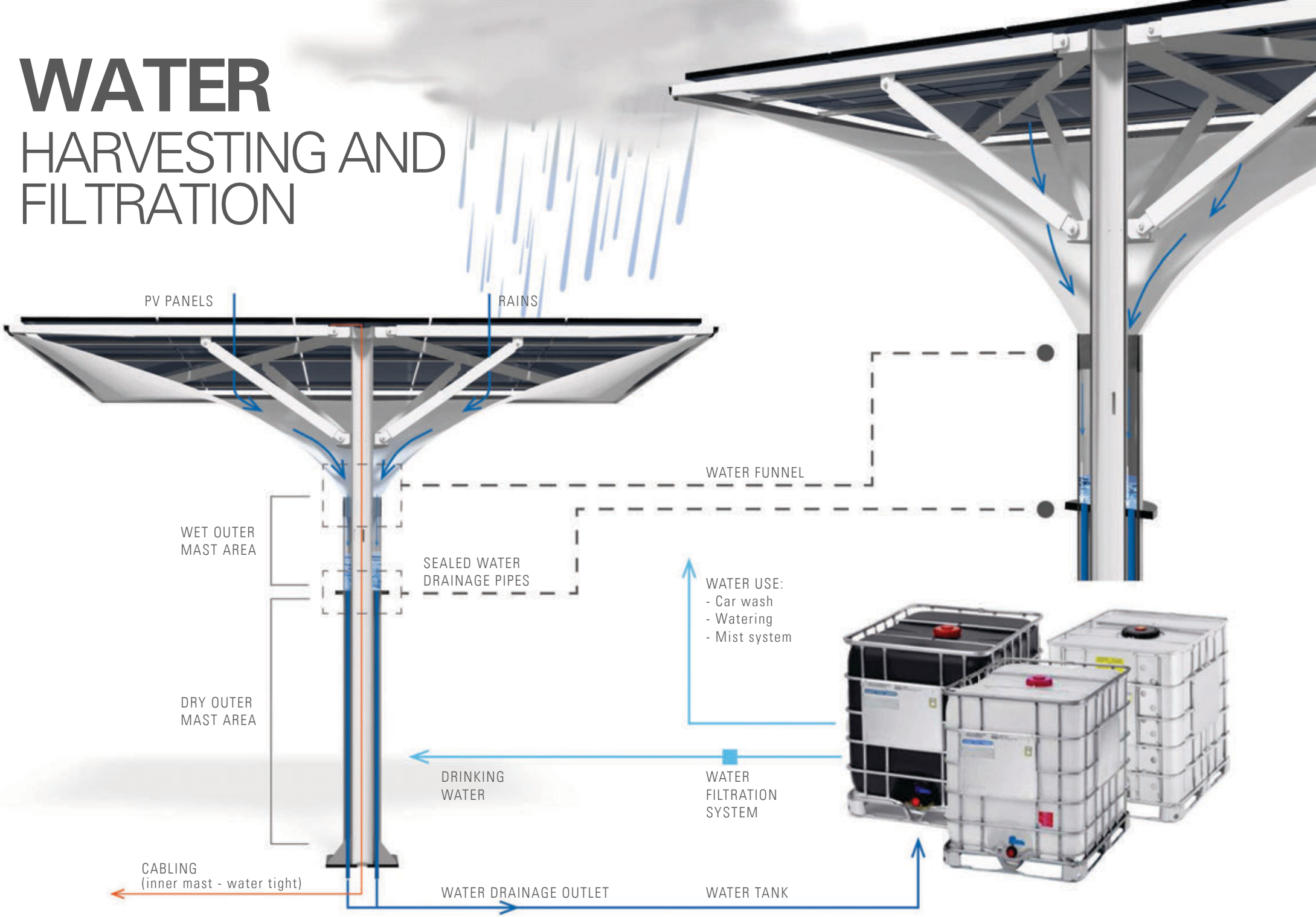
DIMENSIONS ARE IN MILLIMETERS
*all measurements are rounded

CHARGE
&DRIVE

ACCESSORIES

SOLAR
CARPORT

WATER
HARVESTING AND FILTRATION



Reference: **TAGERWILEN, SWITZERLAND 2018**
Type SCP 5.3x5.3 m, Solar Carport

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Type SCP 5.3x5.3 m, Solar Carport

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Type SCP 5.3x5.3 m, Solar Carport

Reference: **DIELSDORF, SWITZERLAND 2018**
Type SCP asymmetric 5.3x5.3 m, Solar Carport

Reference: **DIELSDORF, SWITZERLAND 2018**
Type SCP asymmetric 5.3x5.3 m, Solar Carport

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SHADE STRUCTURES

TYPE E
XXL TULIP

DUBLIN
MEETING HOUSE SQUARE

Design: The surface is now spanned by four 21-m-high umbrellas that slightly bend towards the centre of the place. This trick causes that the center of each 11 x 14m membrane to overlap as flower blossoms thus creating a more usable space. By adjusting heights MDT was able to create a more open air aspect. The umbrellas close and open themselves within seven minutes so during event-free times local residents and tourists can still enjoy the unobstructed views. When closed the umbrellas seem like sculpture columns which reach to the sky. At evening events the umbrellas are illuminated from above. Different colors can be created to enhance the artistic flow.

Partner: Designed by Dublin firm Sean Harrington Architects, and engineered and manufactured MDT-tex

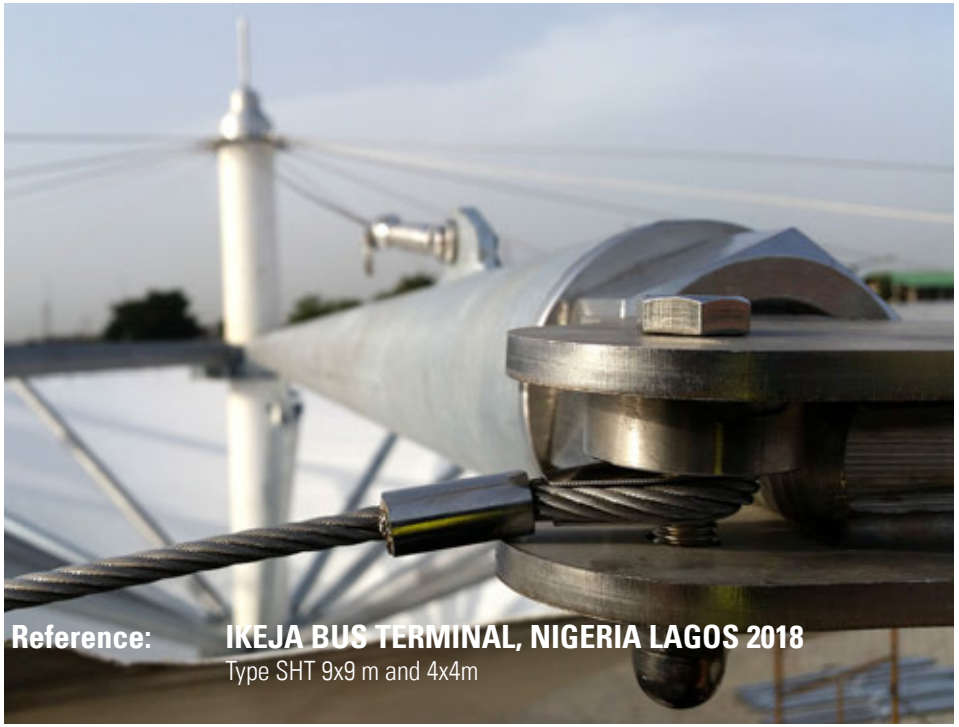
The Meeting House Square is Dublin's main public meeting space. For this purpose, a plurality of events are organized by Temple Bar Cultural Trust (TBCT). Until a few weeks ago, several film and theater performances, as well as concerts had to be canceled rapidly, due to the changing Irish weather. Now, visitors are protected by a unique umbrella installation, which has a total roof area of nearly 700 square meters.

- PTFE material from own manufacturing
- Special engineering: kinked mast and asymmetric bars
- Plug-in solution (assembly within a day)
- Special size: 11 x 14 m

Reference: **MEETING HOUSE SQUARE, DUBLIN 2012**
Type E XXL 11x14 m, Tulip umbrella

NIGERIA

LAGOS, IKEJA BUS TERMINAL



Reference: **IKEJA BUS TERMINAL, NIGERIA LAGOS 2018**
Type SHT 9x9 m and 4x4m

IRELAND
YOUGHAL

Reference: **YOUGHAL, IRELAND 2013**
Type E XXL 6x6 m. Tulip umbrella

Reference: **YOUGHAL, IRELAND 2013**
Type E XXL 6x6 m, Tulip umbrella

MDT-TEX SHORT FACTS

THE COMPANY

MDT's core competence includes in-house R&D as part of the pre-production process. Serially produced items, customised projects and single products are manufactured at different international locations and provide the opportunity to realize customer's wishes promptly and flexibly.

LOCATIONS

1 GERMANY

HARDHEIM

— Headquarter
— Aluminum, steel and textile production
— Storage
— General & Static engineering
— National & International Sales
— Key Account Management
— Research & Development

2 SWITZERLAND

TÄGERWILEN

— Design and Development
— 3d individuell textile formfinding software
— Architecture and innovations
— International Sales
— Key Account Management

3 LATVIA

RIGA

— Aluminum-, textile production & storage
— Product design
— Prototyping / 3d printing
— Powder coating

4 USA

TYRONE, GA

— International Sales
— Key Account Management
— Supply chain mangagement
— Storage

5 AUSTRALIA

FREMANTLE

— International Sales
— Key Account Management
— Storage

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INFORMATION

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