

الدورة 12

مؤتمر تحلية المياه في الدول العربية

19-18 شعبان 1440 | 24-23 ابريل 2019

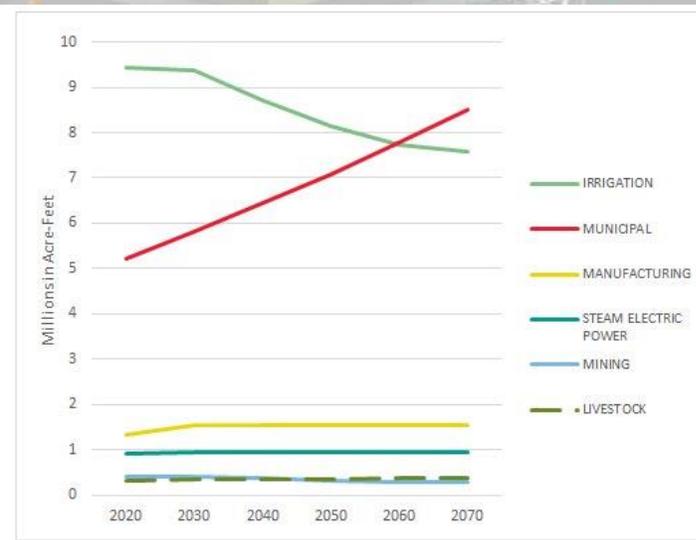
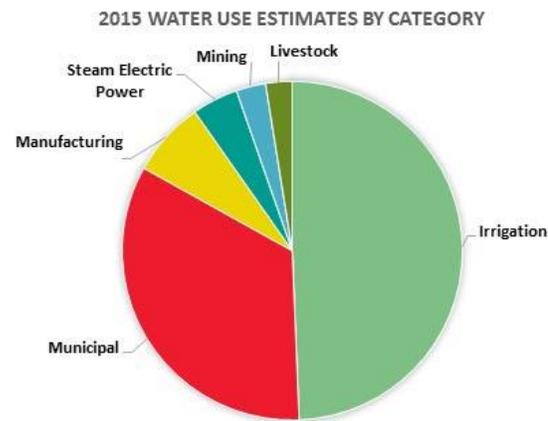
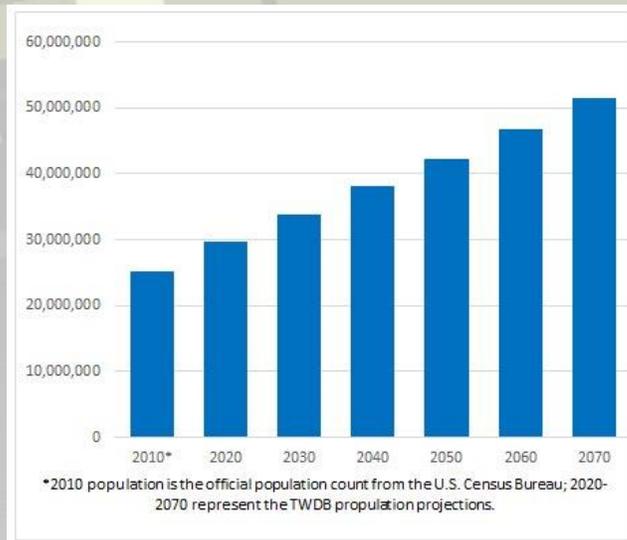
فندق انتركونتinentال سيتي ستارز، القاهرة، جمهورية مصر العربية



Challenge for better desalination technology ***(Install a Large Desalination Unit MED - Case Study)***

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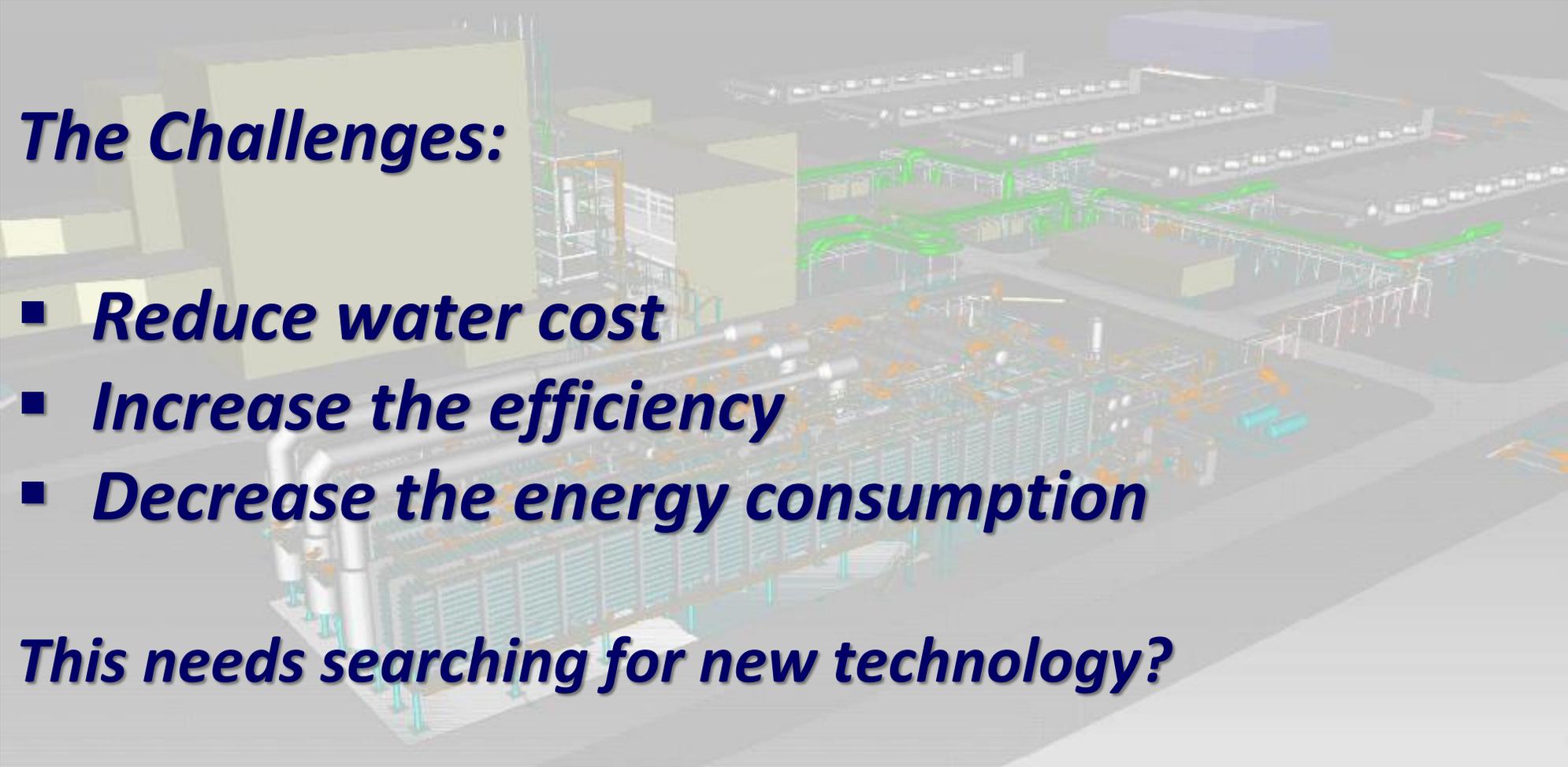
Desalination is considered as main source of drinking water.



A 3D architectural rendering of a large industrial desalination plant. The scene shows multiple levels of buildings, extensive piping networks in various colors (green, blue, orange), and large storage tanks. The overall aesthetic is clean and technical, typical of a modern engineering visualization.

Main existing desalination technologies :

- Thermal processes (MSF , MED)***
- Membrane process (SWRO)***



The Challenges:

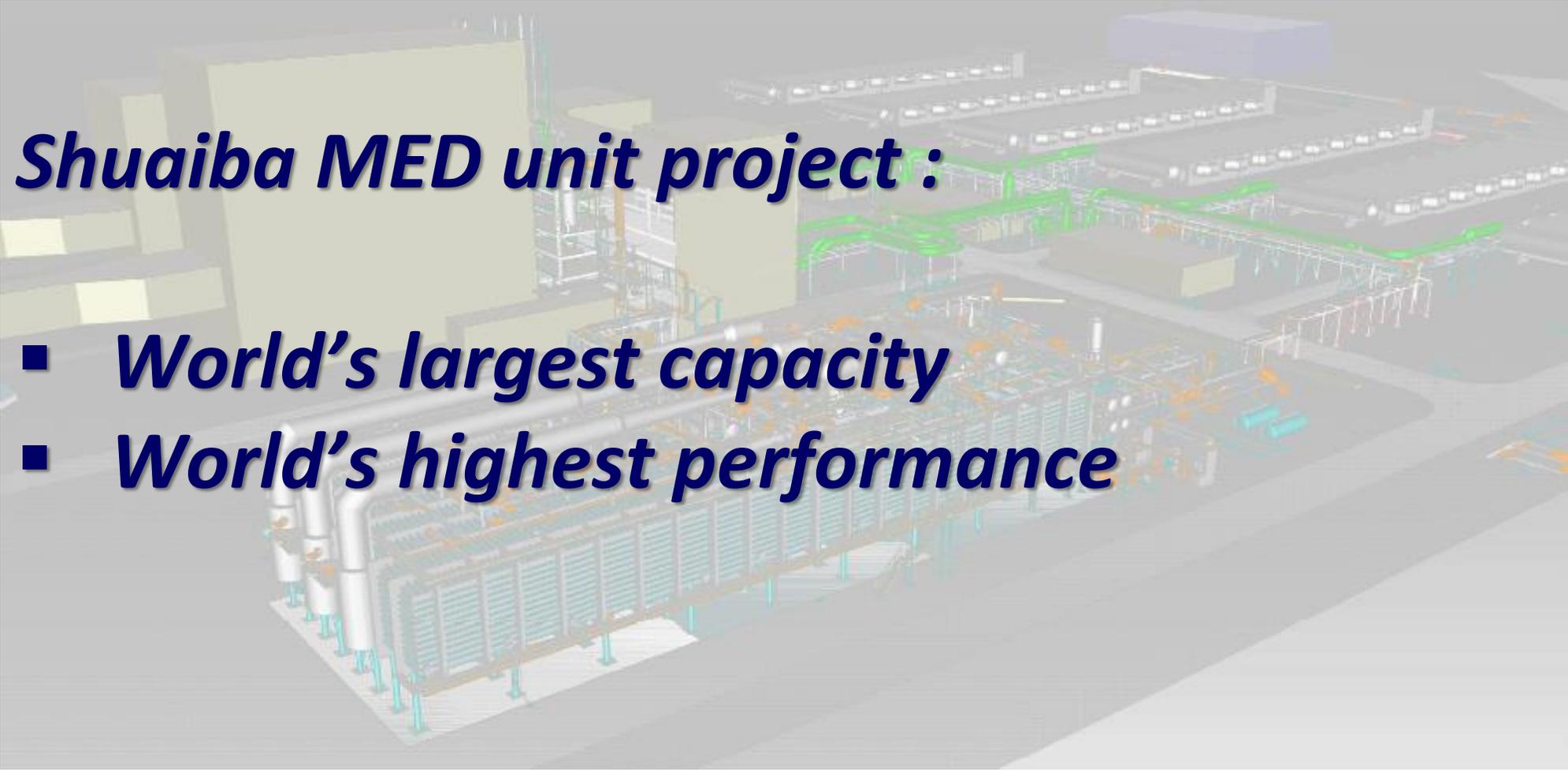
- ***Reduce water cost***
- ***Increase the efficiency***
- ***Decrease the energy consumption***

This needs searching for new technology?

A 3D architectural rendering of a desalination plant. The scene shows various industrial structures, including large rectangular buildings, a complex network of pipes and conduits, and several large cylindrical tanks. The rendering is semi-transparent, allowing the underlying text to be clearly visible. The text is centered and reads "New Challenging Desalination Technology" in a bold, blue, italicized font.

***New
Challenging
Desalination
Technology***

ARWADEX - 5



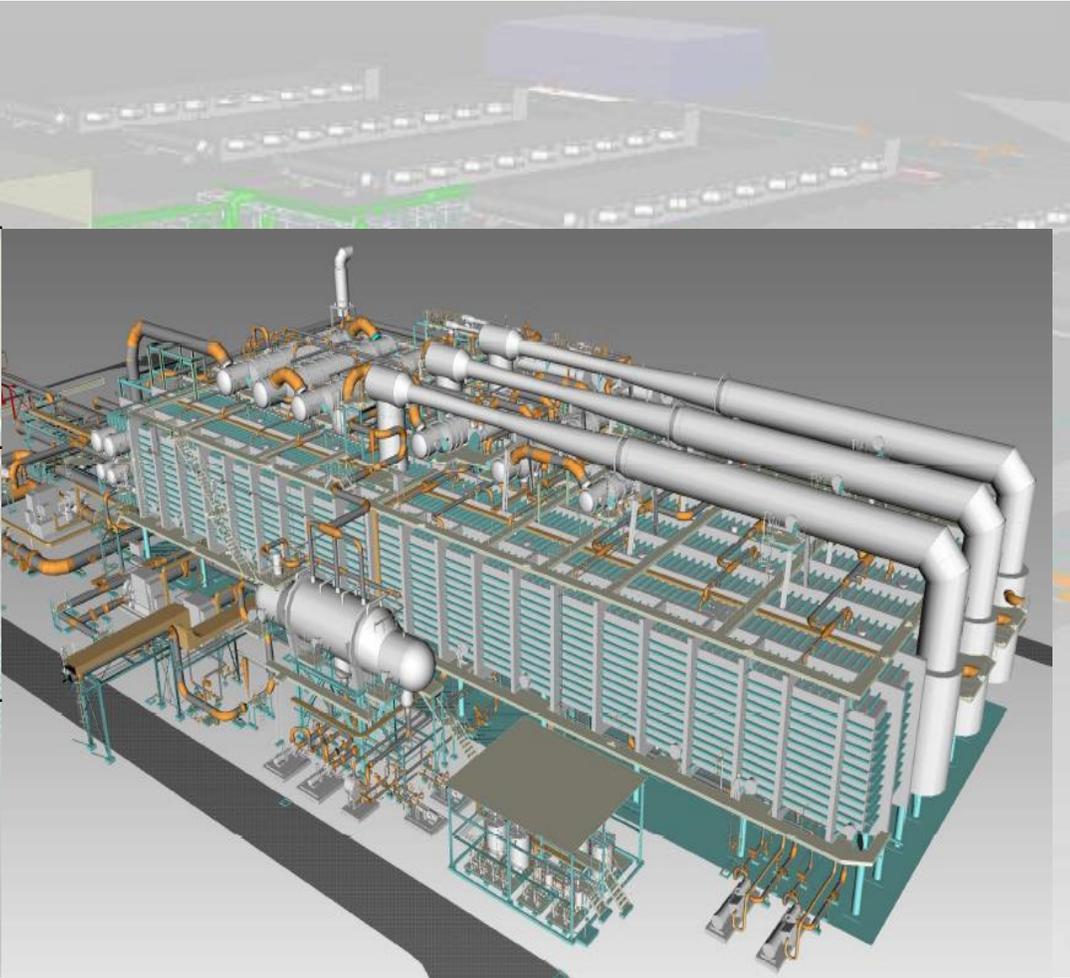
Shuaiba MED unit project :

- ***World's largest capacity***
- ***World's highest performance***

2016

Design conceptual idea

| | |
|---------------------------|---|
| Capacity | 20 MIGD (91,200 m ³ /D). |
| Performance ratio (PR) | 14.6 (kg-distillate/2,326kJ heat input) |
| Gained Output Ratio (GOR) | 15.8 (kg-distillate/kg-steam) |



2018

The Challenge became reality :

- ***Actual Capacity : 92,568 m³ / day***
- ***Actual PR : 14.65 (kg-distillate/2,326kJ)***
- ***Actual GOR : 15.95 (kg-distillate/kg-steam)***

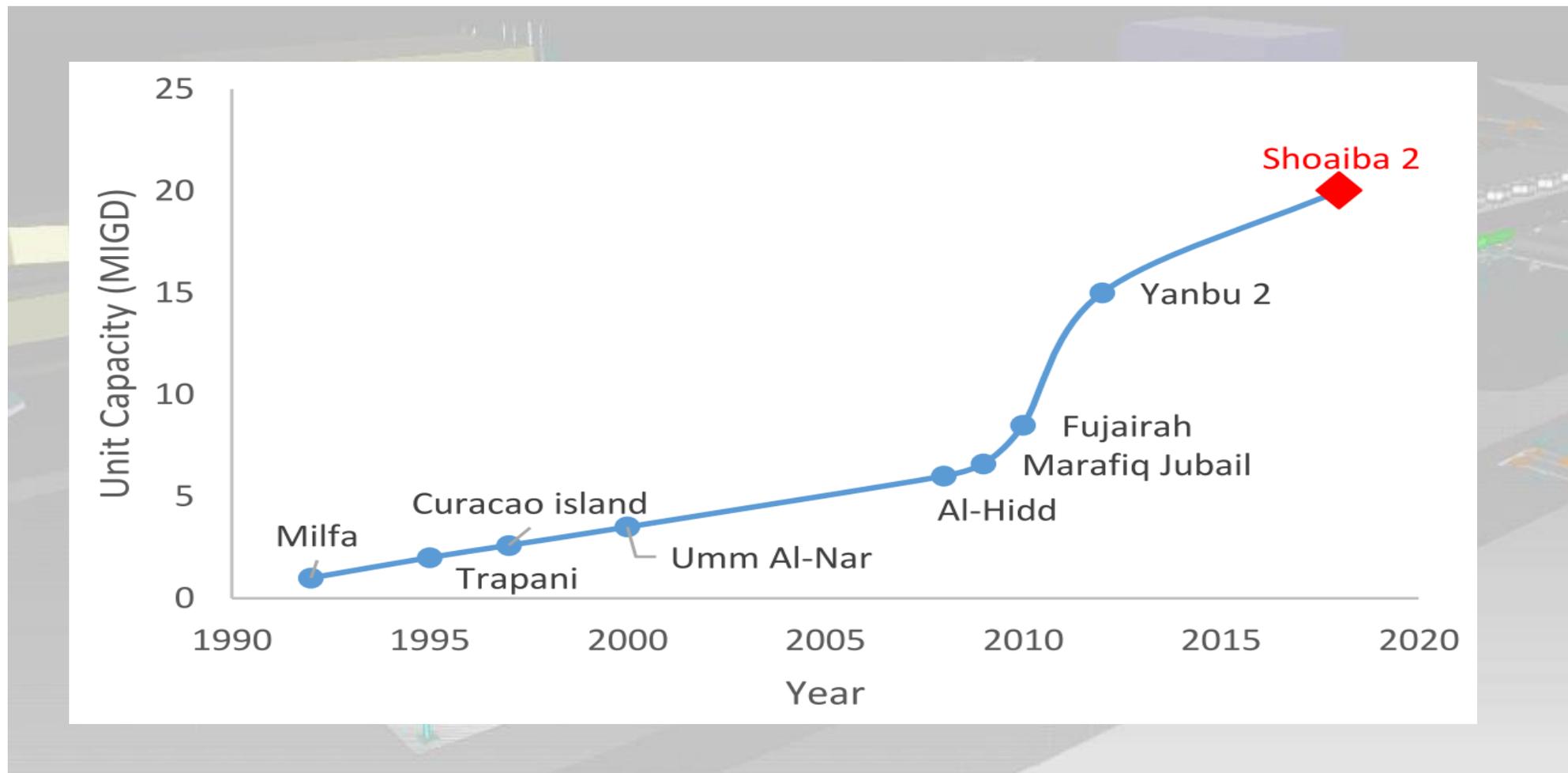


Project Achievement

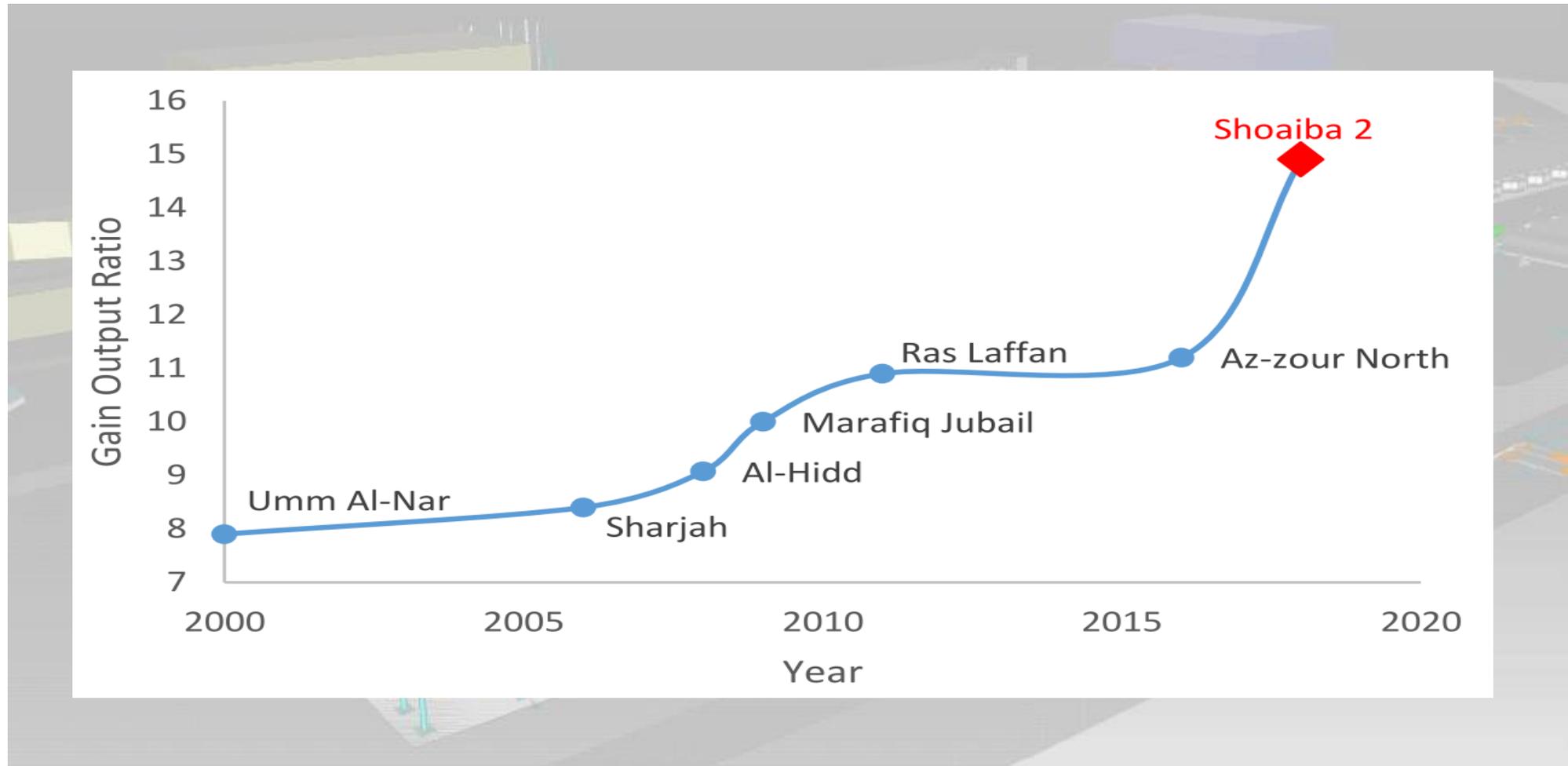
- ***Completed all Manufacture and construction works and now its in service with ,***
- ***High Quality and Efficiency .***
- ***World's Records***



The increase of unit capacity of MED-TVC system



The increase in gain output ratio of large-scale desalination plants



Thanks for your attention

شكر و احسن الاستماع