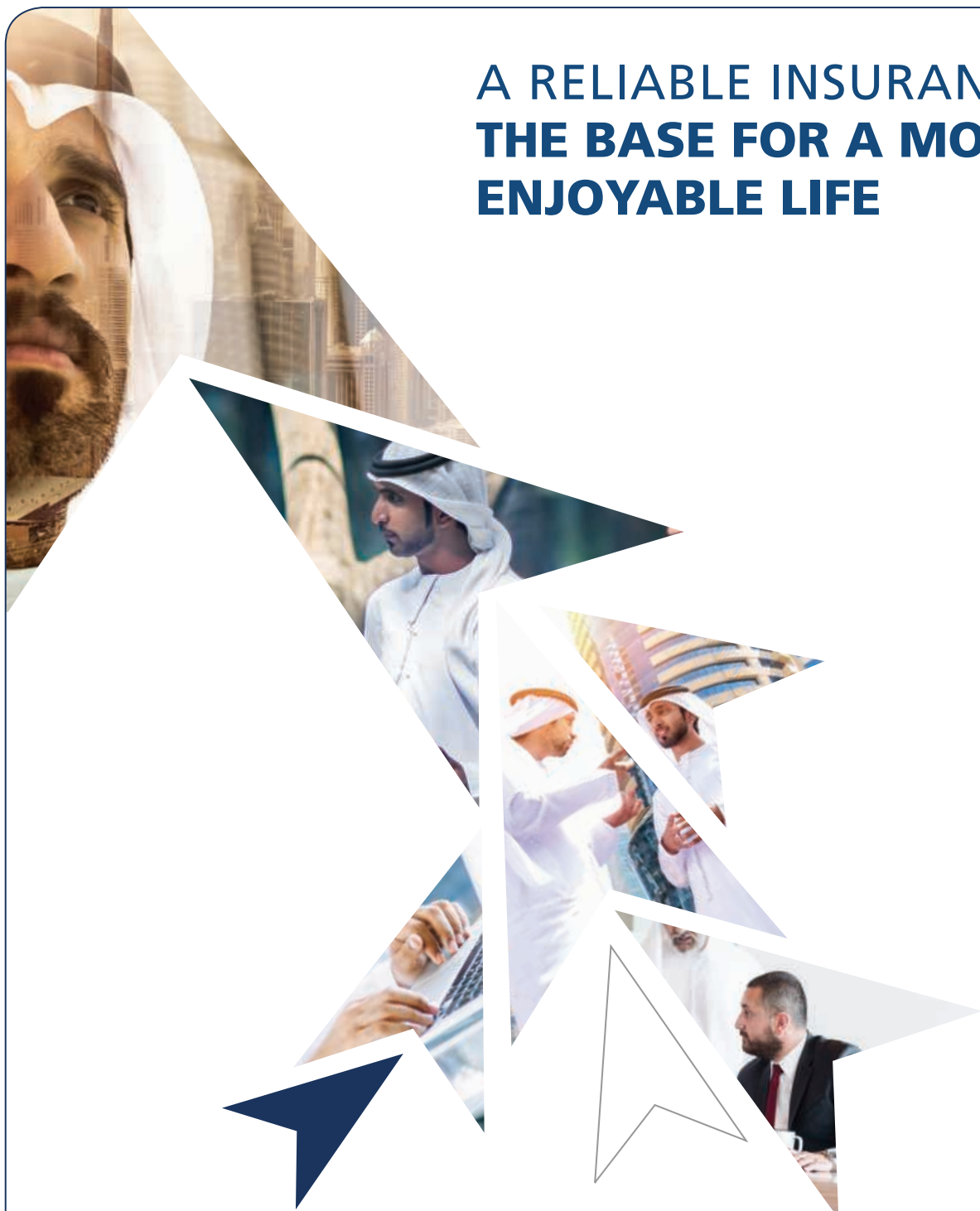


# A RELIABLE INSURANCE THE BASE FOR A MORE ENJOYABLE LIFE



شركة أبوظبي الوطنية للتأمين  
ABU DHABI NATIONAL INSURANCE COMPANY

YOUR RELIABLE INSURER

Corporate LiveWire Business Award 2017 | 2017 Banker Middle East Awards for Best Insurance Company of the Year  
2016 MEA Risk and Insurance Excellence Awards | 2016, 2015 Banker Middle East Awards for Best Consumer Insurance Products  
Best Mobile Experience for the year 2015 - Customer Festival Award | 2015 Innovation and Excellence Award  
LRQA ISO 9001/2015 certified | Rated Strong A- by Standard & Poor's

# CONTENTS

MAY / 2018  
ISSUE 41



## REGULARS

### 05: FOREWORD

### 06: NEWS

The UAE launches its Blockchain Strategy 2021 and its National Advanced Science Agenda 2031, plus prominent sports figures turn out for the Olympic Creativity Workshop

### 10: YEAR OF ZAYED

Celebrating the father of the nation's centenary year, we explore how Sheikh Zayed bin Sultan Al Nahyan championed education for all

### 54: FLASHBACK

This issue the spotlight falls on five women whose contribution to science should be remembered

### 58: INSIGHT

Reef Check UAE's Rebekka Pentti on the importance of surveying our local coral reefs

## EXPLORE

### TIME FOR A SEA CHANGE

The vast amount of plastic littering our oceans isn't just bad news for marine life – it's making its way into the human food chain too. It's time to clean up our act /16

### A BIOLOGICAL REVOLUTION

Recent advances in super resolution microscopy mean the molecular mechanisms of cells and organisms can now be viewed in unprecedented depth and detail /22

### LET IT RAIN

The UAE is playing a leading role in developing solutions for water scarcity through its rain enhancement research /26

### TRANSFORMING LIVES

Five years after the launch of the Al Jalila Foundation, its new research centre aims to become a hub for global medical innovation /30

### CRYSTAL GAZE

New studies of crystals are increasing our understanding of volcanic eruptions /34

### TRIBUTE

A trailblazer in the study of gravity and black holes, Professor Stephen Hawking contributed seminal work to the history of modern physics. We pay tribute to his life /38

### SUSTAINABLE COMMITMENT

DEWA has become the UAE's first government entity to join the United Nations Global Compact, highlighting Dubai's commitment to sustainability /42

### DIGGING DEEP

The UAE's incredible archeological discoveries provide a gateway to the ancient past /46

### ARAB CONTRIBUTION

Her Excellency Sarah bint Yousef Al Amiri is the face of Emirati scientific progress throughout the country and beyond /50



# Innovations that put you first

Proud Premier Partner of Expo 2020 Dubai

For over 50 years, our passion for innovation has provided our customers with products and services that have made a difference in their lives. Whether in Retail Banking, Wealth Management or Wholesale Banking, this has been at the heart of everything that we do.

Today we are proud to partner with Expo 2020 Dubai to help bring opportunity, mobility and sustainability to the world.





قندیل | Qindeel

للطباعة والنشر والتوزيع

Printing, Publishing & Distribution

Member of MBRF Holding

#### CHAIRMAN

HE Jamal Bin Huwareb

#### EDITORIAL BOARD

Saif Al Mansoori

Khalid Wazani

Eyad Al Jurdy

Mohammed Bin Rashid  
Al Maktoum Knowledge  
Foundation  
T: +971 4 423 3444  
F: +971 4 368 7777  
PO Box 214444, Dubai  
United Arab Emirates  
www.mbrf.ae  
flashes@mbrf.ae



**MOTIVATE**

A Motivate Connect Publication

Media One Tower,  
Dubai Media City  
PO Box 2331, Dubai, UAE  
T: +971 4 427 3000  
F: +971 4 428 02261  
motivatepublishing.com  
connect@motivate.ae

#### PUBLISHER

Chris Capstick  
chris@motivate.ae

#### SENIOR EDITOR – CONNECT

Lesley Wright

#### PROJECTS MANAGER

Ingrid Valles

#### SENIOR ART DIRECTOR

Tarak Parekh

#### SENIOR DESIGNER

Sanil Kumar

#### CONTRIBUTOR

Robert Anderson

#### GENERAL MANAGER –

PRODUCTION

Sunil Kumar



## FOREWORD

Dear readers,

Education is not the learning of facts but the training of the mind to think. So claimed the famous German theoretical physicist Albert Einstein, and although it's a statement from the past it has never been more relevant as we encourage critical thinking amongst UAE students in preparation for the future.

The future will be an age of artificial intelligence and industrial revolution. There's no doubt AI will bring disruption to the job market but what robots can't do is imagine groundbreaking new products. Robots can't take on activities that involve creativity, imagination, leadership and original thought – and this is where today's youth must learn to excel.

Education is one of the pillars of the UAE Centennial Plan 2071. At its launch, Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, said: "Rapid changes requires us to prepare future generations with new tools and knowledge, and different skills that enable them to succeed in a world that we will be very different from the times we live in today."

Letting imaginations roam will lead to all kinds of exciting innovations and young people are already leading the way.

I was delighted to learn of the students from UAE University who have created a pocket-sized device – called Braille – that instantly converts text into Braille. The students' prototype was on display at the Think Science Fair in Dubai recently. Turning their ingenious idea into a reality is great step towards helping visually impaired people in their everyday lives, and is a prime example of how young people can make a significant impact. We'll delve deeper into the Think Science Fair in a special feature next issue.

The past informs the future and the UAE's commitment to providing progressive, world-class education stems from the late Sheikh Zayed, founding father of the nation. This issue – as part of the Year of Zayed – we celebrate his vision on the crucial role of education.

We should never stop learning so as we spend time with family and friends during the holy month of Ramadan, use the opportunity to gain wisdom and knowledge from older generations and encourage young minds to soar.

Wishing you all a blessed Ramadan.

**Jamal Bin Huwareb**

CEO of Mohammed bin Rashid  
Al Maktoum Knowledge Foundation