



## Chapter 5.43

# Research Management and Administration: An Emerging Profession in the UAE

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### Abstract

The UAE only officially formed in December 1971, now has seven Emirates joined together as a nation under one President. Since its establishment as a sovereign, independent country around just 50 years ago, the UAE has accelerated advancement across numerous sectors at notable speed, and science, technology, and Research & Development (R&D) sectors are no exception. Research Management and Administration (RMA) as a profession is in the relatively early stages of being recognised as a distinct and niche skill set; at present, the UAE largely imports experienced international talent to fill RMA roles. However, the country's strides in progressing R&D infrastructure and goals of elevating ranks from regional to global R&D leader is beginning to generate a legitimate career ladder for RMA professionals across the country. This, paired with the UAE's commitment to engage more Emirati nationals in the workforce, is cultivating a viable environment for the RMA profession to emerge more significantly from general administration and begin generating a skilled talent pipeline of RMA professionals within the UAE.

*Keywords:* United Arab Emirates; Emiratisation; Research Management and Administration; research ecosystem; expatriates

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## UAE Research Ecosystem

The UAE, as a quite young country, has advanced across many Science & Technology (S&T) sectors in a relatively short period of time. In December 2021, the UAE celebrated its golden jubilee, marking the 50th anniversary of the country's 1971 official formation ([Telecommunications and Digital Government Regulation Authority \(TDRA\), 2022](#)). Leading up to this milestone, the UAE established Vision 2021 ([Ministry of Cabinet Affairs, 2021](#)), which set the decade-long National Agenda from 2010 forward, to include the 'Competitive Knowledge Economy' objective. This objective aimed, in part, to propel the UAE towards being the best in the world in innovation, entrepreneurship, and R&D indicators, with emphasis on creating a sustainable societal ecosystem that engages and serves the national population. By 2015, midway through the Vision 2021 period, the UAE implemented a unified 'Science, Technology and Innovation Policy' ([UAE Government, 2015](#)) for the country. This Policy placed emphasis on moving the UAE away from economic dependence on oil and set the UAE on a path of economic success in an anticipated 'post-oil' future. Towards this ambition of building more sustainable prosperity for future generations with economic diversity, the policy focuses UAE's strategic priorities in R&D and innovation on renewable energy, transport, aerospace, health, and water, with emphasis on cross-cutting advancements in education and human development. Looking at international standard R&D indicators (between 2015 and 2020, the UAE's Gross Expenditures on R&D (GERD) as a percentage of gross domestic product increased from a reported 0.8895% to 1.449%, an increase of nearly 62%, and the number of researchers per million inhabitants increased by 23% in the same time period ([UNESCO Institute for Statistics \(UIS\), 2022](#)).

Research funding and the wider R&D ecosystem in the UAE consists largely of government agencies and state-owned/directed enterprises. There are a number of S&T-focused ministries and associated departments with varying degrees of involvement with R&D advancement and oversight, discussed later in this chapter. Notably, a significant share of R&D funding and activity exists via quasi-government sub-entities formed specifically for the management and strategic execution of a range of R&D endeavours. For example, one may examine the Abu Dhabi Government's Advanced Technology Research Council (ATRC<sup>1</sup>), under which there exist branches for grant-making and 'technology transition' (ASPIRE<sup>2</sup>), applied research and collaboration (Technology Innovation Institute (TII)<sup>3</sup>), and commercialisation (VentureOne<sup>4</sup>).

The country's public institutions of higher education are engaged in significant R&D, largely from government sources. As such, and different to models elsewhere, it is not uncommon for these entities to simultaneously exercise the role of both the *grantee* and *grantor* – meaning they are given budgets to perform R&D activities themselves, while also having programs/mechanisms established to develop funding programs and grant awards for R&D, to be conducted either collaboratively or independently. This can be seen as a notable feature that may set some countries of the Middle East region apart from other areas of the world with strong R&D ecosystems. These internal programs may be larger in volume and scale than elsewhere in the world, presumably to balance the reality that there are fewer

<sup>1</sup> Advanced Technology Research Council (ATRC) – <https://www.atrc.ae/about-atrc>.

<sup>2</sup> ASPIRE – <https://www.aspireuae.ae/about-us>.

<sup>3</sup> Technology Innovation Institute (TII) – <https://www.tii.ae/about-us>.

<sup>4</sup> VentureOne – <https://www.atrc.ae/ventureone>.

long-standing agencies purely focused on grant-making towards R&D activities, to which UAE-based researchers could otherwise apply. Resources are allocated here in a manner that allows the development and maintenance of robust internal funding programs, such as those found within academic institutions such as Khalifa University of Science and Technology.<sup>5</sup> This significant function of internal grant-making, where the institution is its own ‘sponsor’ has shaped the types of roles and responsibilities of RMAs in these spaces.

Charities and fundraising activities are highly regulated in the UAE (Ministry of Community Development, 2021), and much of this landscape is focused on humanitarian efforts and social development, rather than pure R&D. Thus, the UAE’s non-profit and private R&D funding landscape is more narrow than *direct* government funding sources. For example, the Emirates Foundation’s grant-making scope was initially quite broad, across multiple sectors, with significant resources distributed across a wide range of activities including S&T initiatives. But, five years into the Foundation’s operation, the Foundation’s Board prompted an external review, the finding of which highlighted that,

the Foundation was giving out grants in too many areas, leading to diluted impact and making it quite difficult, if not impossible, to measure the effects. It also meant the focus was on financial support rather than broader technical support. (John D. Gerhart Center, 2017)

As a result, the Emirates Foundation’s focus narrowed to UAE youth empowerment and adopted a venture philanthropy model, operating as a facilitator of public–private partnerships. Similar quasi-non-governmental organisations (NGOs) with structured R&D initiatives and established award-making programs largely appear to be funded through pooling contributions from private or corporate donors, for example, Sandoq Al Watan,<sup>6</sup> which translates to ‘Nation’s Fund’). Otherwise, they are either established and/or funded by prominent national figures. One such example is perhaps the most prominent medical R&D focused Foundation in the country, the Al Jalila Foundation, established by His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, which has funded AED 28 million into scientific research projects since 2014 (Al Jalila Foundation, 2023). Thus, while these types of organisations are not *technically* government-owned, there is often an intersection between these types of entities and rulers of the Emirates, through funding of initiatives and/or in oversight rights through Board seats. What this demonstrates is the high degree of interconnectivity in the R&D ecosystem of the UAE.

The UAE has been seen to take an iterative approach to reviewing and reorganising R&D priorities, governance structures, and streamlining strategic efforts and resources. It is worth noting that many R&D governance structures and initiatives in place in the UAE are only a few years old at the time of this book’s publishing. Further, some facets of S&T/R&D strategy have shifted in just the time between the book’s initial conception and final print. New key Councils have been formed, Committees have been mandated, and R&D performing institutions have evolved and reshaped significantly. These points are highlighted to underscore that the UAE is an agile system, able

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<sup>5</sup> Khalifa University of Science & Technology, Research Offices – <https://www.ku.ac.ae/research-offices>.

<sup>6</sup> Sandoq Al Watan – <https://sandoqalwatan.ae/about-us/> ; <https://researcher.ae/>.

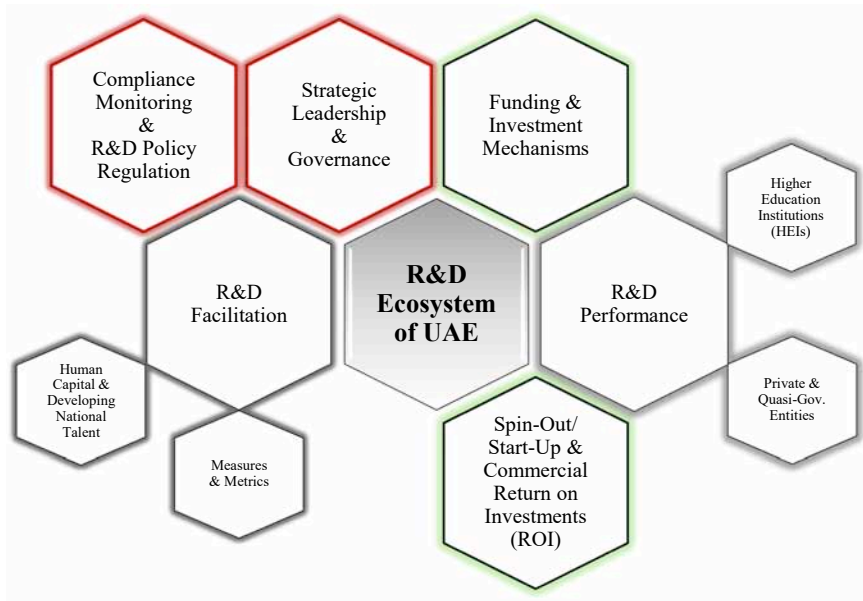


Fig. 5.43.1. Simplified R&D Ecosystem of UAE, in 2023.

to adapt quickly to capture opportunities, and maximise impacts in S&T and R&D. It would be an interesting line of inquiry to assess the scope of impact this fast-moving pace has on our profession's key stakeholders – the researchers themselves – as well as the degree of influence it may have on RMAs' ability to adapt and best support those conducting R&D through shifting targets, towards positive outcomes for our other important stakeholders – sponsors and the public.

### Evolution of the RMA Profession

Of the 10+ million population of the UAE, there are far more expatriates than Emirati Nationals in the general population by approximately a 9:1 ratio ([Dubai Statistics Center, 2021](#); [Statistic Centre Abu Dhabi, 2019](#)). While the UAE is a regional leader in the Global Competitiveness ranking, there is an identified regional need for greater human capital investment and utilisation ([Bin Byat & Sultan, 2014](#); [Schwab, 2019](#)). To bolster the knowledge economy, the UAE, like other countries in the Middle East region, recruits a substantial percentage of global talent from outside its own borders ([Strategy&, 2018](#)). As of 2021, UAE nationals represent only 7.66% of the total workforce ([Ministry of Human Resources and Emiratisation \(MOHRE\), 2021](#)). The government-backed initiative to bring more balance to the employment ratio of expatriates and UAE Nationals is called Emiratisation ([TRDA, 2020](#)).

The current RMA space in UAE relies significantly on imported talent, which is heavily influenced by the models seen in the USA, UK, and Europe. However, the growing Emiratisation shift over time has the potential to change the way research support units are structured and staffed in the future, as expatriate influence decreases. An opportunity exists for the national population to refine the nature of RMA as applicable in the UAE's political and economic context, as it does differ from the landscapes of those countries with longer-standing RMA frameworks.

### ***RMA Offices and Role Structure***

Presently, R&D strategy at most academic institutions is led at the topmost level by a Provost or Vice-President level employee. They tend to be academic, either having a PhD background or actively serving dual appointments as a faculty and an administrator. One layer beneath, it is common to find a Director of the responsible department or office (e.g. Research Services and Sponsored Programs). Beyond this, universities are found to be varied in structure, titles, and total headcount supporting RMA activities. Other common positions found in the higher education sector include Manager (of a functional subunit like pre-award, post-award, research compliance, etc.), and typically have supporting staff with rank titles such as ‘Specialist’ or ‘Coordinator’, sometimes with a degree of seniority in the designation.

However, it can be difficult to know from a title alone what an individual’s scope of activities may be and whether the title reflects organisational hierarchy. Informal interviews across a number of institutions indicate that some RMAs reach titles through time served in the organisation; and while others receive competency-based promotion in title, they work in a rather flat structure in the unit from a function/responsibility standpoint. For example, an Assistant/Associate Director in one organisation may have multiple direct reports and a clear organisational hierarchy of roles and responsibilities above and below them, while the same title in another organisation may be a ‘one person’ job with no supporting staff. As one could extrapolate, this influences the depth and breadth of an RMA’s role, as organisational charts vary greatly between institutions.

Given the significant proportion of expatriates in the workforce, it is not surprising to find that the structure and nomenclature for the roles related to RMA tend to mirror those of the countries from which expatriate administrators have joined, further influenced by the sector in those countries as well. For example, in non-academic settings, the group of individuals responsible for RMA may be housed in a centralised Project Management Office (PMO) or positioned in a decentralised manner into the R&D performing units of the organisation. In these cases (applied research centers; hospitals), titles may follow more of a program/project management style nomenclature.

As discussed earlier in this chapter, office structure and roles may also be driven by function, and the types of offices that exist within the same institution examined. One may find housed in the same entity a sponsoring agency responsible for funding program development grant-making, positioned alongside a separate office responsible for seeking and administering external funding, and yet another separate office responsible for managing the intellectual property and innovation aspects of portfolios across both of the aforementioned branches. The skillsets most effective in each of these separate functional units certainly differ, and efforts will need to be made to expand acknowledgement of this as fact, in order to set the foundation for training individuals into these roles and building a sustainable pipeline of talent.

### ***Current RMA Community***

While RMAs are found across various organisational types, a significant employment space is within higher education institutions (HEIs) and their affiliated/administered research centres. The two Emirates with the highest volume of HEIs are Dubai with 35 (Dubai Knowledge and Human Development Authority – [KHDA, 2022](#)) and Abu Dhabi with 28 (Abu Dhabi Department of Education and Knowledge – [ADEK, 2022](#)).

The remaining Emirates have 10 or fewer each. In addition to the public and private HEI categories, a third category exists in the UAE, known as ‘Global Partnerships’ (Cultural Division, Embassy of the United Arab Emirates, 2011). These are satellite campuses of HEIs from other countries, and represent a significant proportion of the HEIs in the UAE. Examples include New York University, Abu Dhabi; University of Wollongong, Dubai; The University of Arizona, Ajman. It is worth noting that the majority of private HEIs operating in the UAE were established *after* 2005 (Wilkins, 2010). This means that not only do *all* universities in the UAE meet the Times Higher Education (THE) definition of Young University – 50 years or younger (Times Higher Education, 2023) – but more than 60% are younger than just 1-2 decades. Even so, ‘leading universities in the UAE have shown a greater determination... to produce high quality, world-class research’ (Wilkins, 2010).

Other spaces where RMA-types of roles exist are in the R&D performing and entities referenced earlier in this chapter, as well as in the government Ministries and Departments with objectives linked to the country’s R&D ecosystem. Such examples include the Department of Science, Technology, & Scientific Research in the Ministry of Education,<sup>7</sup> and the Department of Health.<sup>8</sup>

No RMA-focused peer society is known to be formally organised within the UAE or the surrounding Middle East region. There is interest at grassroots level around forming a more structured RMA collaborative community in the UAE, but it remains to be seen how that may materialise. It is unclear whether the UAE would align with an existing external society (such as SRAI<sup>9</sup> or ARMA<sup>10</sup>), or whether RMAs in the country may become numerous enough overtime that a strong case could be made to relevant government bodies to conceptualise and request a consortium that serves the RMAs’ networking and educational needs in this niche context.

Informally, RMAs in the UAE tend to be quite supportive of each other in sharing lessons learned and best practices. It is not uncommon for RMAs, particularly in the academic sector, to be recruited from many different countries. This allows research management offices in the UAE the opportunity to adopt aspects of successful administration from across the globe and adapt these to fit the unique environment of the UAE. At times, expatriate RMAs may find that onboarding to the UAE involves some ‘unlearning’, in a positive sense, as they find the UAE R&D ecosystem, and by extension of the RMA profession, is much more flexible and fast-moving than they are accustomed to.

## Figures and Data on RMA as a Profession

As asserted by the UAE’s Advanced Sciences Office, a part of the Ministry of Cabinet Affairs, in its ‘State of Research in the United Arab Emirates’ report (2019):

[...] the data on UAE is extremely limited and it is difficult therefore to track progress and conduct meaningful productivity analyses. The same is valid for many of the Middle Eastern countries.

<sup>7</sup>Ministry of Education – <https://www.moe.gov.ae/En/AboutTheMinistry/Pages/Vision-Mission.aspx>.

<sup>8</sup>Department of Health, Research and Innovation Centre – <https://www.doh.gov.ae/en/research/>.

<sup>9</sup>Society of Research Administrators International – <https://www.srainternational.org/>.

<sup>10</sup>Association of Research Managers and Administrators – <https://arma.ac.uk/>.

By extension, the managerial and administrative side of R&D experiences the same scarcity of data. Per [UIS \(2018\)](#) data, there were an estimated 8,586 full-time equivalents (FTEs) comprising ‘other supporting staff’ in R&D activities across the UAE ([UIS, 2018](#)). However, in the absence of recorded or reported figures before or after this time point, trends are unable to be assessed.

In Q4 2021, the UAE Government announced intentions to streamline efforts to better capture R&D activity across the country. The Ministry of Industry & Advanced Technology (MoIAT<sup>11</sup>) launched the ‘National Guide for Measurement of R&D Expenditures in Government Sector’ ([The National, 2021](#)) to standardise data collection on R&D activities and RMA staffing, as well as bring uniformity to the classification and accounting of R&D related finances. This effort involves collaboration between the MoIAT, the UAE’s Federal Competitiveness and Statistics Centre,<sup>12</sup> Ministry of Finance,<sup>13</sup> and more than a dozen other local and federal entities across the country. Further, the Ministry of Education (MoE) has formed an Executive Team responsible for tracking and reporting R&D indicators in higher education. Similarities could be drawn between this initiative and the Higher Education Research and Development Survey (HERD), National Science Foundation (NSF, 2022b) administered in the United States by the National Center for Science and Engineering Statistics, and the Frascati Manual published by the Organisation for Economic Co-operation and Development (OECD, 2015). It will be interesting to track the public-facing data covering RMA FTE and observe trends over time, as these statistics are recorded and reported with more regularity and consistency of standardised definitions/scopes through the initiatives mentioned above.

## Future of RMA

The future of the RMA profession in the UAE will be influenced both directly and indirectly by the continuous evolution of R&D priorities and associated mandates that shift organisations and resources. Not to be forgotten are the viewpoints and needs of our largest stakeholder group: the researchers themselves:

It’s a unique experience to get to influence the R&D sector in a country during its infancy, there are great opportunities being accompanied by even greater challenges. With other countries having more than 100 years of experience with R&D, the situation in the UAE is more agile and flexible. Nevertheless, this flexibility and agility requires *consistency, sustainability, and commitments*, given that the R&D process naturally is a relatively slow process with both short and long-term benefits. (F. AlMarzooqi, Personal Communication, March 2023)

The author personally agrees that it is a critical point for the UAE’s RMAs and R&D policy leaders to take care in balancing short- and long-term expectations of R&D activities and outcomes. Otherwise, risk exists for the introduction of new initiatives and/or shifted priorities to cut short the maturation of existing programs, structures, etc., before full potential and impact of such can be realised. Ensuring a degree of ‘sustainability and consistency’ for ongoing R&D efforts perhaps may be a

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<sup>11</sup> Ministry of Industry and Advanced Technology – <https://moiat.gov.ae/en/>.

<sup>12</sup> Federal Competitiveness and Statistics Centre – <https://fcsc.gov.ae/en-us>.

<sup>13</sup> Ministry of Finance – <https://mof.gov.ae/>.

universal point of importance for researchers, but especially so in environments where change moves much more quickly than elsewhere.

Below are two of the most significant gap areas in relation to the conduct and direction of the RMA profession (how it is done and who will do it), of which the key R&D councils of the UAE are aware and working towards closing.

### ***Research and Development Policies***

There is a notable absence of a universal source for research administration regulations in the UAE. Where the USA has ‘uniform guidance’ of 2 CFR Part 200 (US Office of Management and Budget (Office of Management and Budget), 2023) and Australia has the Commonwealth Grants Rules and Guidelines (Australian Government Department of Finance, 2017), there is not a unified clearinghouse of regulations applicable to the administration of R&D funding to which RMAs in the UAE can turn. The Emirates Research and Development Council approved the formation of a Research and Development Policies Committee in Q1 2022, ‘which will work on developing, reviewing, and planning policies related to the R&D ecosystem and identifying its gaps’ (MoIAT, 2021). It could be hypothesised that an outcome of this Committee could be the validation and centralisation of R&D policy guidance, which may bring greater clarity and certainty to RMAs responsible for monitoring and enforcing such R&D regulations.

The Emirates continues to launch substantial R&D and commercialisation funding support. However, there remains room to increase R&D funding from non-government sources (Bin Byat & Sultan, 2014). Ambitions of the UAE include emphasis on applied research and advancing innovations that are on the higher end of the ‘technology readiness level’ spectrum, to deliver on real-world application of R&D efforts and realise return on investment to the local and regional economy. Towards this end, private–public partnerships are likely to increase, and it could be envisaged that roles centred in intellectual property and technology transfer will be prime for RMA recruitment in the coming decades. This may require highly specialised expertise in commercialisation activities, to fully realise and maximise UAE’s investments– which underscores the gap area discussed further below.

### ***Development of Human Capital***

The UAE places an emphasis on world-class talent on the recruitment of world-class scientists and researchers, evidenced by the mandate of the R&D Human Capital Committee to ‘focus on developing, attracting, and retaining scientific and research talents’ (MoIAT, 2021), but it is presently unclear if RMAs are also considered as critical supporting talent in this human capital pool.

There is a notable absence of formal degree or certificate programs specifically targeted for the RMA profession by educational institutions accredited within the UAE. Online programs are available from institutions abroad, however in 2023, the MoE has only just begun recognizing and providing equivalency (certificate confirming credentials) for diplomas or certificates earned online. With this expansion to the equivalency process, perhaps more UAE nationals will enroll in existing RMA graduate-level programs offered online. There remains the clear opportunity for the development of *UAE-specific* RMA training and formal education courses. This would not only support the continuing education of existing RMAs working in the country, but more importantly, could begin to pave the pathway for local graduates to enter the RMA workforce directly. Over time, this may reduce the degree of UAE’s reliance on expatriate subject



matter experts in this field. At present, individuals with general administration or finance experience can make inroads, however, the nuanced differences between these and RMA are plenty and warrant specific training and strategic placement. RMA as a target profession would provide a 'new' niche career path for the next generation of Emiratis.

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