



Cybersecurity as the Backbone of Digital Innovation in the Arab Public Sector

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Expert Team Leader for the Elaboration of the Arab Cybersecurity Strategy



Summary

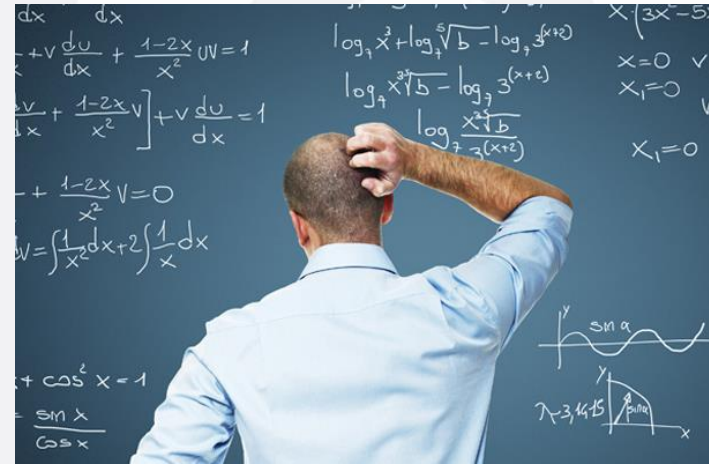
-  **01** Innovation for Arab Public Institutions : is it possible ?
-  **02** Why Cybersecurity ?
-  **03** The Arab Cybersecurity Strategy
-  **04** Ongoing pilot actions



Technology & Innovation for Arab Public Institutions

Is it possible?

**Analysis
paralysis**





Problem n°1: Knowledge absorption

Tunisia

79

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
61	96	Lower middle	NAWA	12.4	151.5	12,490

	Score/Value	Rank
Institutions	36.2	107

1.1 Institutional environment	34.8	94
1.1.1 Operational stability for businesses*	37.5	101
1.1.2 Government effectiveness*	32.1	82
1.2 Regulatory environment	55.2	88
1.2.1 Regulatory quality*	32.0	93
1.2.2 Rule of law*	42.5	60
1.2.3 Cost of redundancy dismissal	21.6	94
1.3 Business environment	18.6	121
1.3.1 Policies for doing business [†]	26.5	111
1.3.2 Entrepreneurship policies and culture [†]	10.6	78

	Score/Value	Rank
Human capital and research	36.1	46

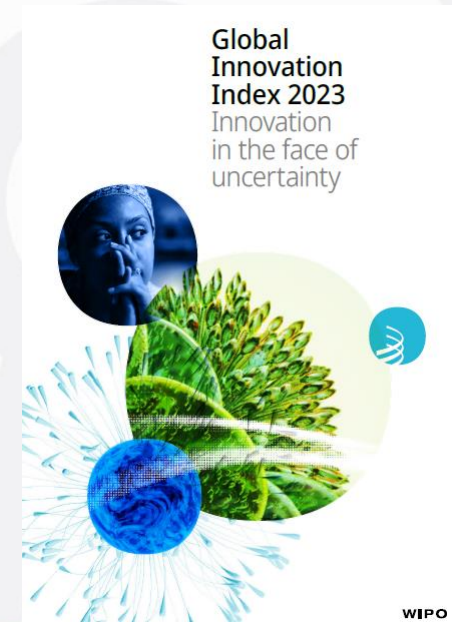
2.1 Education	62.9	20
2.1.1 Expenditure on education, % GDP	6.2	16
2.1.2 Government funding/pupil, secondary, % GDP/cap	51.1	1
2.1.3 School life expectancy, years	15.1	50
2.1.4 PISA scales in reading, maths and science	371.4	74
2.1.5 Pupil-teacher ratio, secondary	13.3	61
2.2 Tertiary education	37.9	38
2.2.1 Tertiary enrolment, % gross	37.5	80
2.2.2 Graduates in science and engineering, %	37.9	5
2.2.3 Tertiary inbound mobility, %	2.9	50
2.3 Research and development (R&D)	7.5	69

	Score/Value	Rank
Business sophistication	16.8	119

5.1 Knowledge workers	18.5	103
5.1.1 Knowledge-intensive employment, %	15.9	86
5.1.2 Firms offering formal training, %	19.1	83
5.1.3 GERD performed by business, % GDP	0.1	60
5.1.4 GERD financed by business, %	18.9	68
5.1.5 Females employed w/advanced degrees, %	8.8	80
5.2 Innovation linkages	11.5	112
5.2.1 University-industry R&D collaboration [†]	23.4	109
5.2.2 State of cluster development [†]	22.9	107
5.2.3 GERD financed by abroad, % GDP	0.0	58
5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	63
5.2.5 Patent families/bn PPP\$ GDP	0.0	78
5.3 Knowledge absorption	20.3	125
5.3.1 Intellectual property payments, % total trade	0.1	101
5.3.2 High-tech imports, % total trade	8.7	55
5.3.3 ICT services imports, % total trade	0.4	120
5.3.4 FDI net inflows, % GDP	1.5	89
5.3.5 Research talent, % in businesses	5.2	69

	Score/Value	Rank
Knowledge and technology outputs	27.1	50

6.1 Knowledge creation	26.2	37
6.1.1 Patents by origin/bn PPP\$ GDP	1.3	50
6.1.2 PCT patents by origin/bn PPP\$ GDP	0.0	76
6.1.3 Utility models by origin/bn PPP\$ GDP	n/a	n/a





Problem n°2: Talent retention



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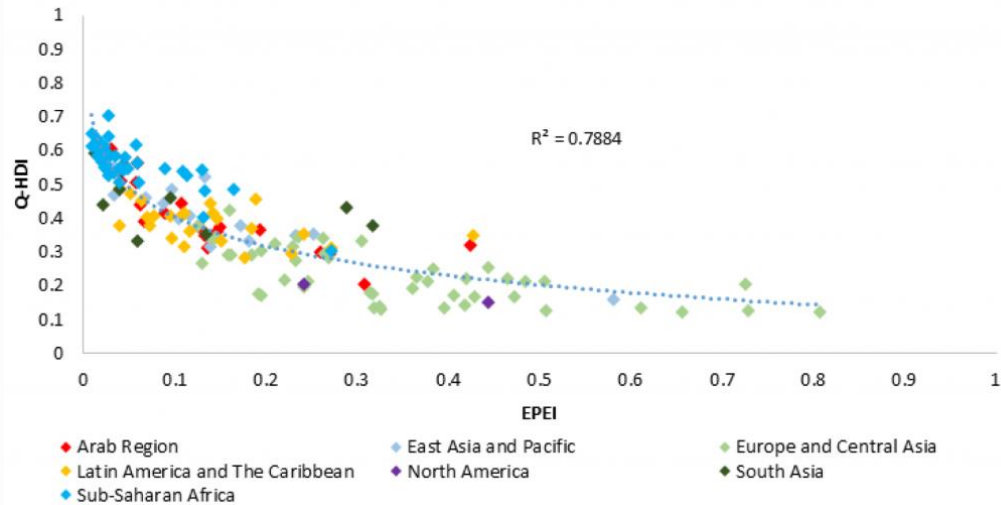
Employee benefits critical for talent retention in evolving Middle East workforce: Survey

In KSA, 78% of employees are considering changing jobs, with a similar sentiment shared by 74% of their UAE counterparts. Notably, women and younger employees in the 25-34 age group are particularly proactive in exploring new career opportunities.



Online Bureau • Agencies
Published On Oct 26, 2023 at 09:13 AM IST

Problem n°3: Sustainable efficiency



Public employment effectiveness and quality-adjusted human development





Why Cybersecurity?

Motivation n° 1: Huge skills potential

bughunters.google.com/leaderboard

Hunters About Report Learn **Leaderboard** Open Source Security Blog

Overview Honorable Mentions

Leaderboard

Our Bug Hunters ranked by reward total.

Search Country All Program All Programs Time All Time

#	↑	RESEARCHER	REPORTS	MEMBER SINCE	COUNTRY
1		Aman Pandey		August 2021	India
2		ele7enxoh		December 2021	China
3		Tomasz Bojarski		April 2021	
4		Yu-Cheng Lin		April 2021	Taiwan
5		Rory McNamara		May 2021	United Kingdom
6		leecraso		November 2020	China
7		b0ring		June 2021	China
8		Khaili Zhani		May 2021	Morocco
9		John Wick		November 2021	United States



Why Cybersecurity?

Motivation n° 1: Huge skills potential

THE ECONOMIC TIMES | tech

English Edition • | 29 February, 2024, 09:50 AM IST | Today's ePaper

Facebook awards \$1.98 million to researchers for findings bugs in 2020

IANS • Last Updated: Nov 20, 2020, 12:45:00 PM IST

Synopsis

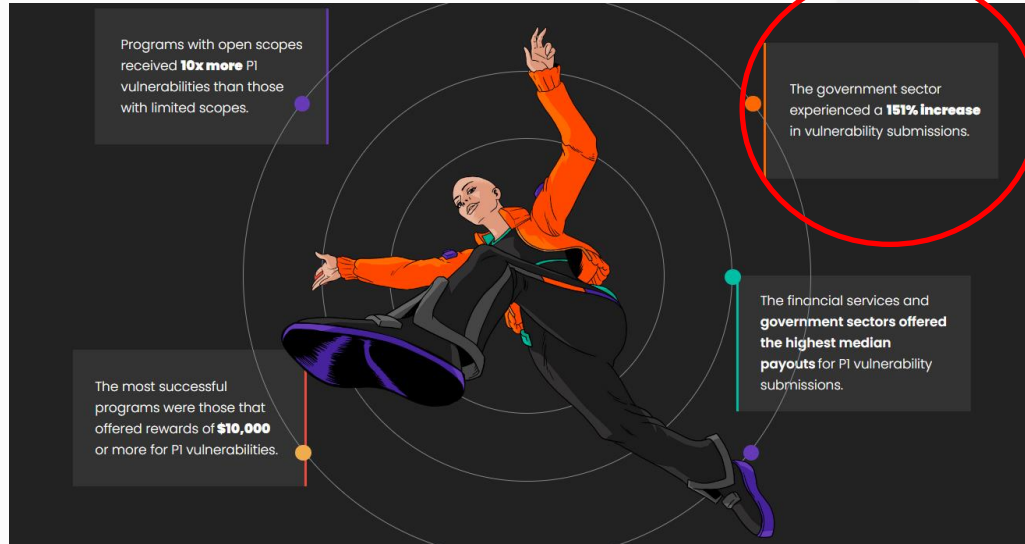
India, Tunisia, and the United States were the top three countries based on bounties awarded this year, Facebook said.



ThinkStock Photos

Why Cybersecurity?

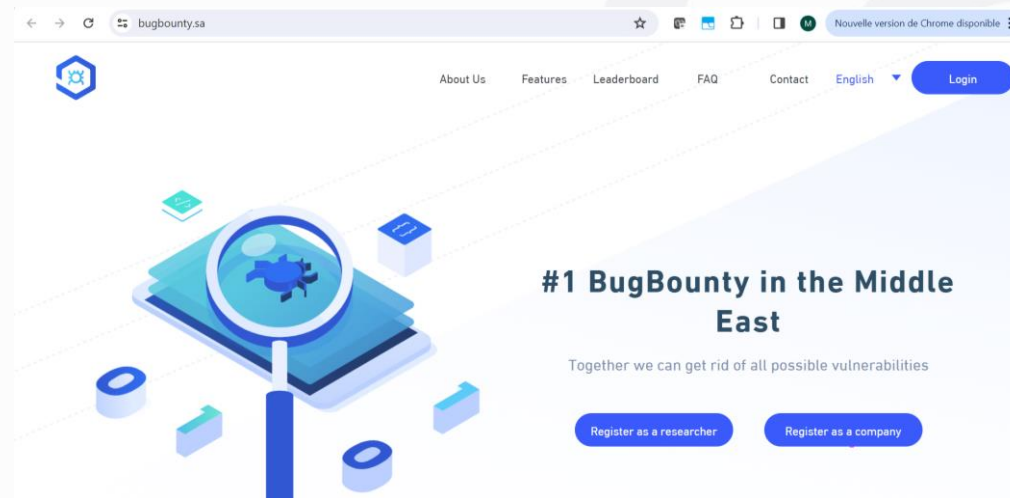
Motivation n°2





Why Cybersecurity?

Motivation n°2





Why Cybersecurity?

Motivation n°3



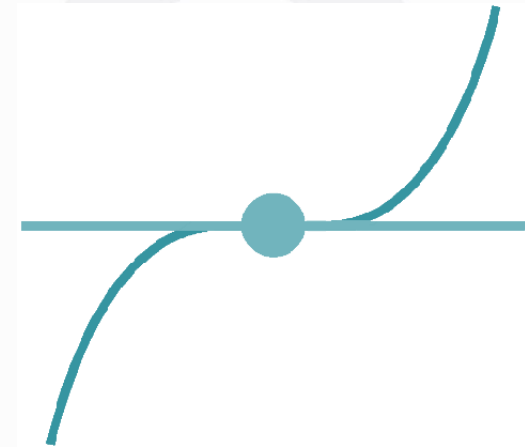


Technology & Innovation for Arab Public Institutions

Inflection point?

The Public Sector as:

1. an **Early Adopter** of Local Solutions
2. a **trust backbone** for building regional cooperation





Towards an Arab Cybersecurity Strategy

Motivation

Sharing Threat
01 Information

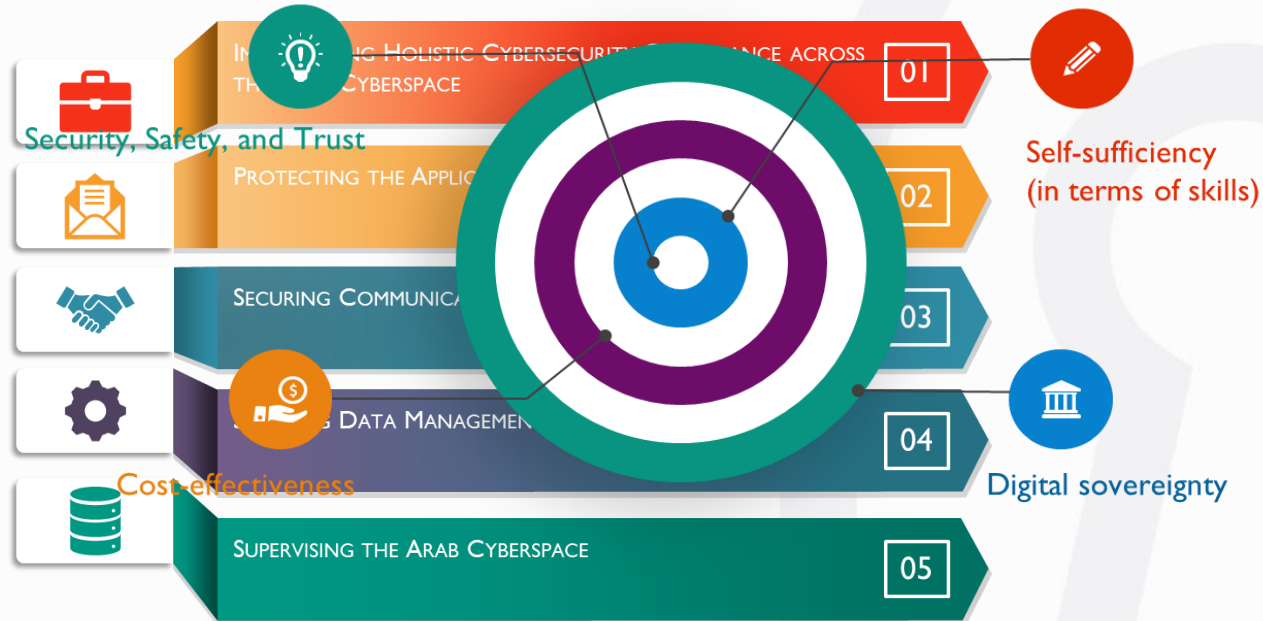
02 Creating a Domestic
Cybersecurity Marketplace

03 Setting Common
Cybersecurity Body of
Knowledge





The Challenges





The Vision

*“Towards a **secure, safe, inclusive** Arab society integrated into the global digital economy empowering **self-sufficient** solutions and expertise supporting digital **confidence** and **trust** within the Arab cyberspace.”*



The Programmes

WP 8: Promoting the Local Cybersecurity Industry and Talent Retention

WP 7: Developing Unifying Legal Measures

WP 6: Supporting Research and Development in Cybersecurity

WP 5: Enhancing the Maturity of Institutional and Administrative Structures



WP 1: Development of a Unifying Cybersecurity Assessment Framework

WP 2: Promoting Training and Awareness in Cybersecurity

WP 3: Establishment and Development of a National Arab CSIRT

WP 4: Promoting Compliance to International Standards



The Arab Cybersecurity Strategy



Arab Information and Communication Technologies
Organization

22 January · 🌐

تم خلال الدورة 27 من مجلس وزراء الاتصالات الموافقة على الاستراتيجية العربية للأمن السيبراني التي قامت بإعدادها المنظمة العربية لتكنولوجيات الاتصال والمعلومات. وقد كانت المنظمة قد انطلقت في اعداد الاستراتيجية خلال الفترة 2022-2023 و تم عرضها في اطار هيكل مجلس وزراء الاتصالات على فرق العمل المتخصصة ليتم في الأخير الموافقة عليها بعد الاخذ بعين الاعتبار لملاحظات و مقترحات الدول.

و اعتمدت الاستراتيجية الرؤية التالية : « نحو مجتمع عربي آمن، متكامل ومندمج في الاقتصاد الرقمي العالمي ومكتفي ذاتيا في مجال الحلول والخبرات الداعمة للثقة الرقمية والحامية للفضاء السيبراني العربي »



The Actions

WP 5: Enhancing the Maturity of Institutional and Administrative Structures

Define cybersecurity assessment policies for institutions and administrations

Compile assessment results and identify gaps

Elaborate a strategy to improve the cybersecurity maturity of institutions and administrations

Conduct continuous cybersecurity assessment to implement a sustainable vision

Define cybersecurity assessment policies for institutions and administrations

Compile assessment results and identify gaps



The Actions

WP 6: Supporting Research and Development in Cybersecurity

Develop a regional cybersecurity early warning system

Promote the development of zero-trust solutions to address regional problems

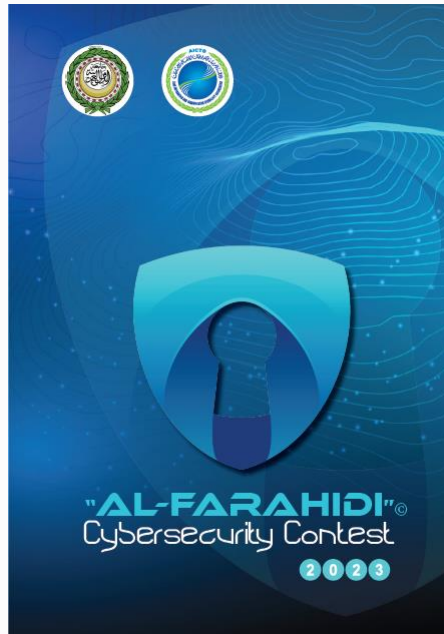
Facilitate research initiatives addressing the protection of data management and data movement

Organize regional cybersecurity conferences

Analyse the impact of the advent of quantum computing on the secrecy of sensitive data in the Arab Cyberspace



Ongoing pilot actions



ACC Competition encompasses four categories



CTF Competition for Arab Corporate Teams



CTF Competition for Arab Law Enforcement Authorities



Best Arab Research Award in Cybersecurity

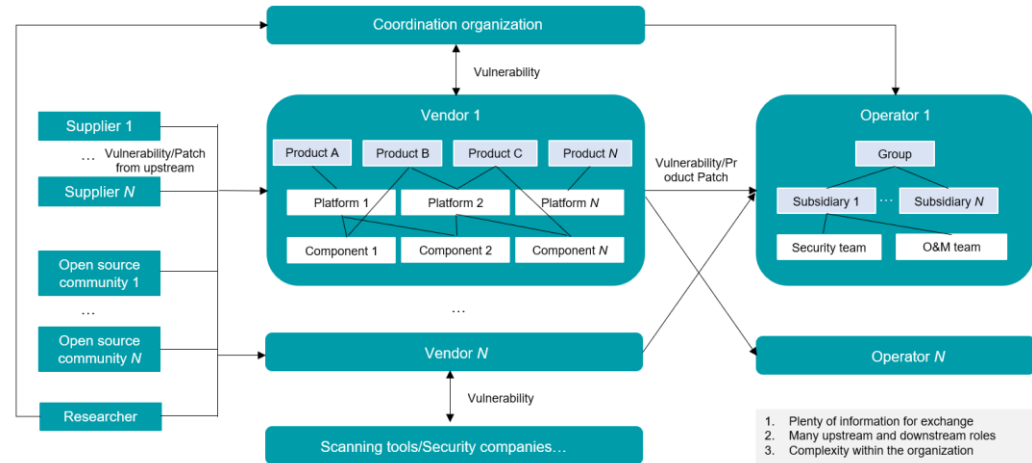


Bug Hunting Competition





Ongoing pilot actions





Ongoing pilot actions

في سابقة من نوعها: الشركة التونسية للبنك تطلق منصة لتمويل مشاريع ذات أولوية وطنية

تاريخ النشر : 11:28 - 2024/02/07



علمت "الشروق اون لاين" من مصادر خاصة، ان الشركة التونسية للبنك أعدت منصة إعلامية تستعد لإطلاقها قريبا Trust Platform لدعم المشاريع ذات الأولوية الوطنية، وذلك بغية المساهمة كمؤسسة مالية في تطوير المرفق العام في كنف الانسجام



Ongoing pilot actions



Arab Information and Communication Technologies
Organization

8 February at 12:11 · 🌐

في اطار برامجها الفنية الهادفة لتطوير قدرات الدول العربية تقوم المنظمة العربية لتكنولوجيات الاتصالات والمعلومات حاليا بتقديم الدعم الفني لفائدة وزارة التحول الرقمي والابتكار وعصرنة الإدارة بالجمهورية الاسلامية الموريتانية و ذلك في اطار مشروع انشاء البنية التحتية للمفتاح العمومي PKI .





Technology & Innovation for Arab Public Institutions

Cybersecurity as a Backbone

1. Have the right skilled people in place to effectively plan, execute, measure and optimize technologies and digital systems.

3. Elaborate a global DT vision aligned with the enterprise digital strategy rather than individual isolated strategies for each department.



2. Identify and select the appropriate approach according to the complex context in which the enterprise operates.

4. Implement the output of the strategy gradually in order to make it adopted by all the stakeholders and maximize the chances of success.



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