medical WORX

medical WORX Brief:

medical WORX

medical WORX is an innovative team. Providing well-designed solutions in cooperation with specialists to keeping the healthcare spaces up to date with innovation.

Powered with Passion & AI Experience to support the industry with state-of-the-art designed solutions to transfer our hospitals into smart working spaces based years of experience, and day-to-day knowledge of the requirements of the industry profession.

Problem:

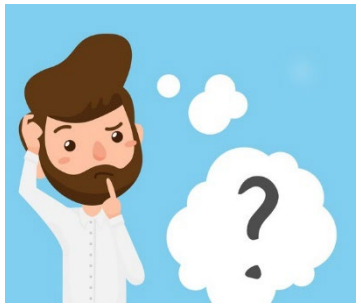
Operating rooms in hospitals have evolved tremendously with innovations in technology and the vast amount of data available today.

Due to the emergence of advanced diagnostic and imaging technology, the operating room has become increasingly congested and complex with a multitude of OR devices and monitors.

Without OR Integration, surgical teams must navigate around the operating room to perform a variety of tasks. The movement and time required to complete these tasks slows the procedure down and can detract attention from where it is needed most: on the patient.

Staff may stop using the these kind of complex solutions or just only use small portions of its functionality.

Insurance system need a visualization on cost impact on time consumed in OR. Recording & Archiving is needed.



Solution:

WORX-OR Integration System is designed to simplify and streamline the OR by consolidating data, access to video, and controls for all of these devices at a central command station, allowing the surgical staff to perform many of their tasks efficiently without needing to move around the OR.

WORX-OR Integration System consolidate and organize all patient data for the surgical staff during a procedure, minimizing congestion and streamlining information across multiple platforms.

WORX-OR Integration System provides the OR Staff with increased productivity, safety, and efficiency to keep focus on delivering patient care.

WORX-OR promote simple visualization of a few devices on a few displays within the OR, with affordable prices better than complex systems in the market.

Product Features:

WORX-OR Integration System

WORX-OR, an operating room integration system provides basic video routing and data integration, allowing OR staff to provide the best possible care for patients in a safer and simpler setting. Using a combination of (**AIoT Software** + **medical recording box** + **Smart OEM cart** + **Medical display**) to achieve the below functions:

1. Generative AI tools reduce the money and time needed for content creation, thereby boosting productivity and profitability.
2. Generative AI models use neural networks to identify the patterns and structures within existing data to generate new and original content.
3. Easy to record videos and take screenshots
4. Record each step of safety checks in surgery.
5. Streaming in real time

Integrated solution:

WORX-OR Integration System

Software development
medical recording box
Smart OEM cart
Medical display

What Operating Rooms Needs:

• General Operating Room

- Work Flow check
- Patient information check
- Patient Safety check

• Cardiac Catheterization

- Equipment Operating check
- Surgical Consumables Recording
- Surgical team confirm

• Minimally invasive surgery

- Surgy process recording
- Tele-OR
- Distance Education

Surgery dashboard (WORX-OR):

- The WORX-OR provides basic **video routing and data integration**, allowing OR staff to provide the best possible care for patients in a safer and simpler setting.

Screen signal source comes from

- **Image captured card**
  EX: HDMI or DVI input on the Stroze or PACS workstation.

- **HTML5**
  EX: Vital Sign, Surgical package tray, PubMed, bulletin board

How We Can Use AIoT Technology to Help:

- ✓ **WORX-OR SW**
- ✓ **IoT sense**

- ✓ Medical Display

- ✓ Capture
- ✓ Recording
- ✓ Streaming

- ✓ Data
- ✓ Image
- ✓ Video

https://asia.nikkei.com/Business/Technology/Japan-developing-the-smart-networked-operating-room-of-the-future

Integrate all related equipment/video/data at a single dashboard for the operating team to catch necessary information and at the same page.

Smart Operating Room:

Video / Data Management System Usage Scenarios

Monitor device

✓ Vital Sign Monitor

✓ Endoscope

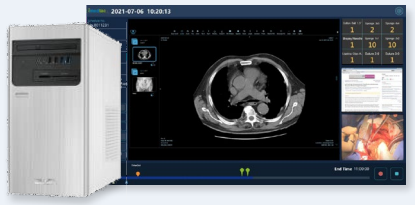
✓ PACS workstation

✓ DICOM web viewer

Ethernet

HDMI / DVI

Operation room

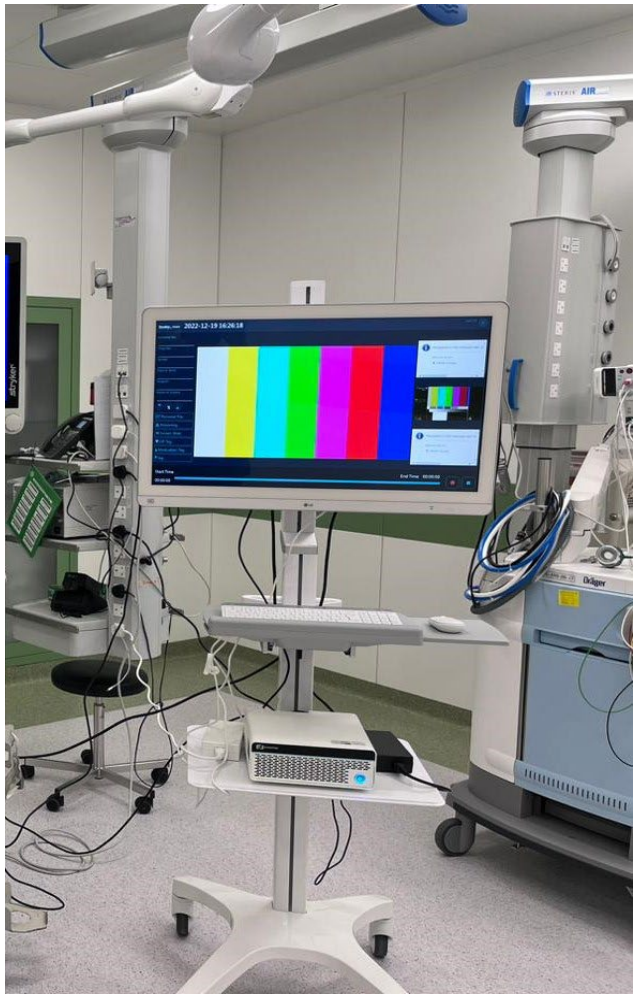


WORX-OR

Ethernet

Teaching/Case study

MVP is Ready:



Exposure into other departments:

Working in clinics, patient rooms, ICU, ER:

1. Patient Observation
2. Tele-Health
3. Tele-Medicine
4. Virtual Doctors Rounding
5. Virtual Nursing

Market Analysis Example

Saudi Arabia

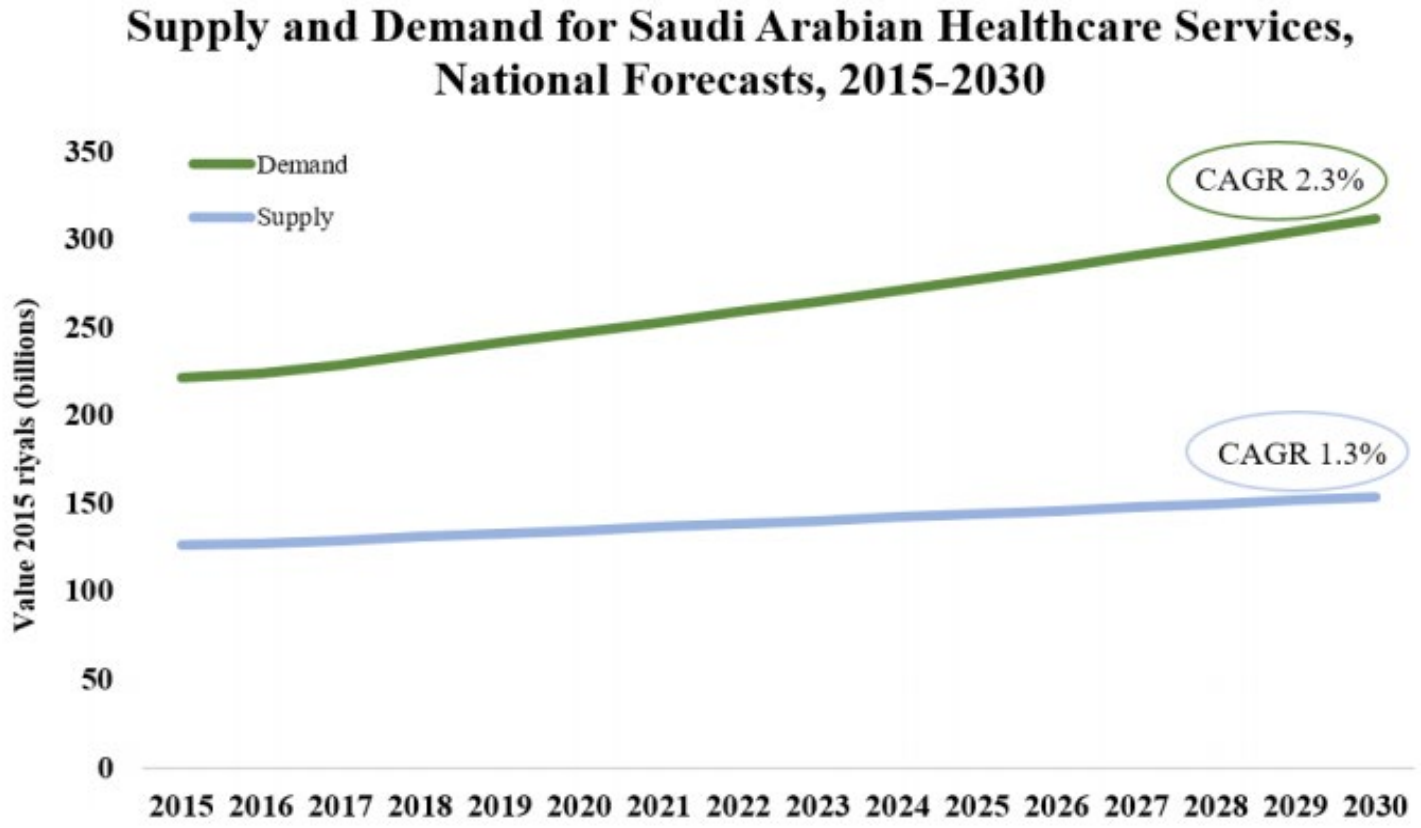
Saudi Market overview:

- Healthcare is the 2nd biggest expenditure in KSA
- Many new hospitals are coming due to privatization vision 2030

Market overview:

Proved market on continuous growth

- Few players after pandemic

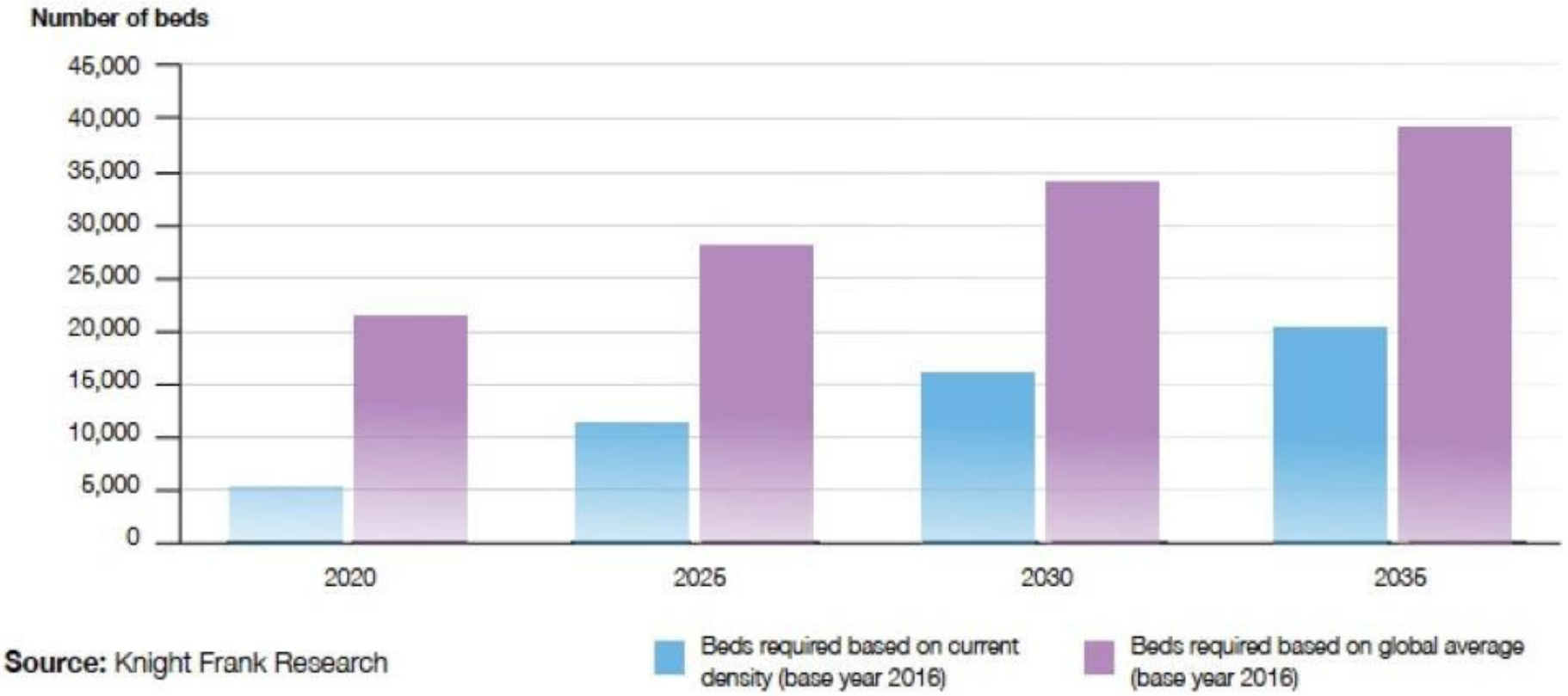


Source: REMI, USSABC

Market overview:

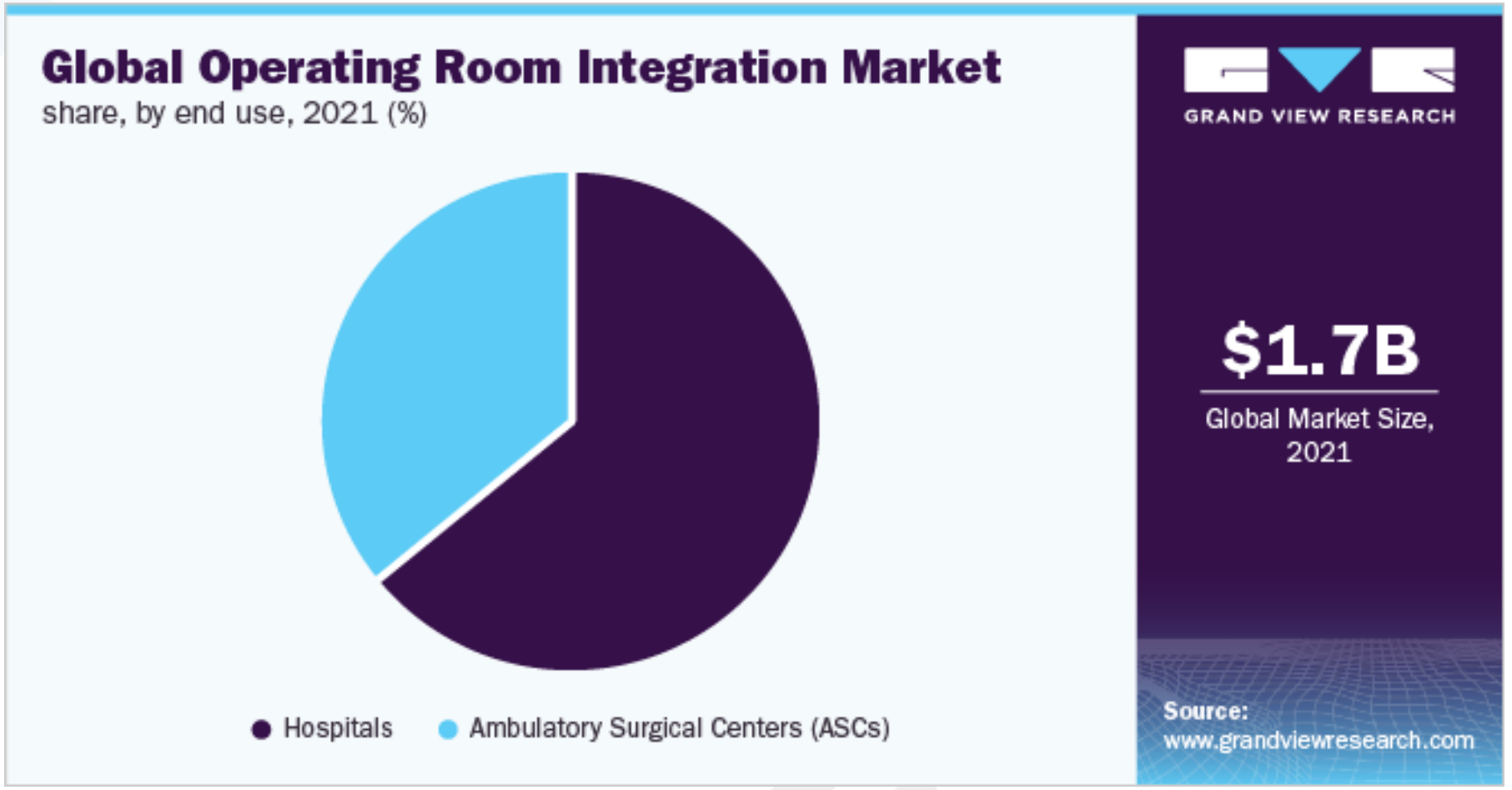
FIGURE 3

Estimated demand 2020 - 2035

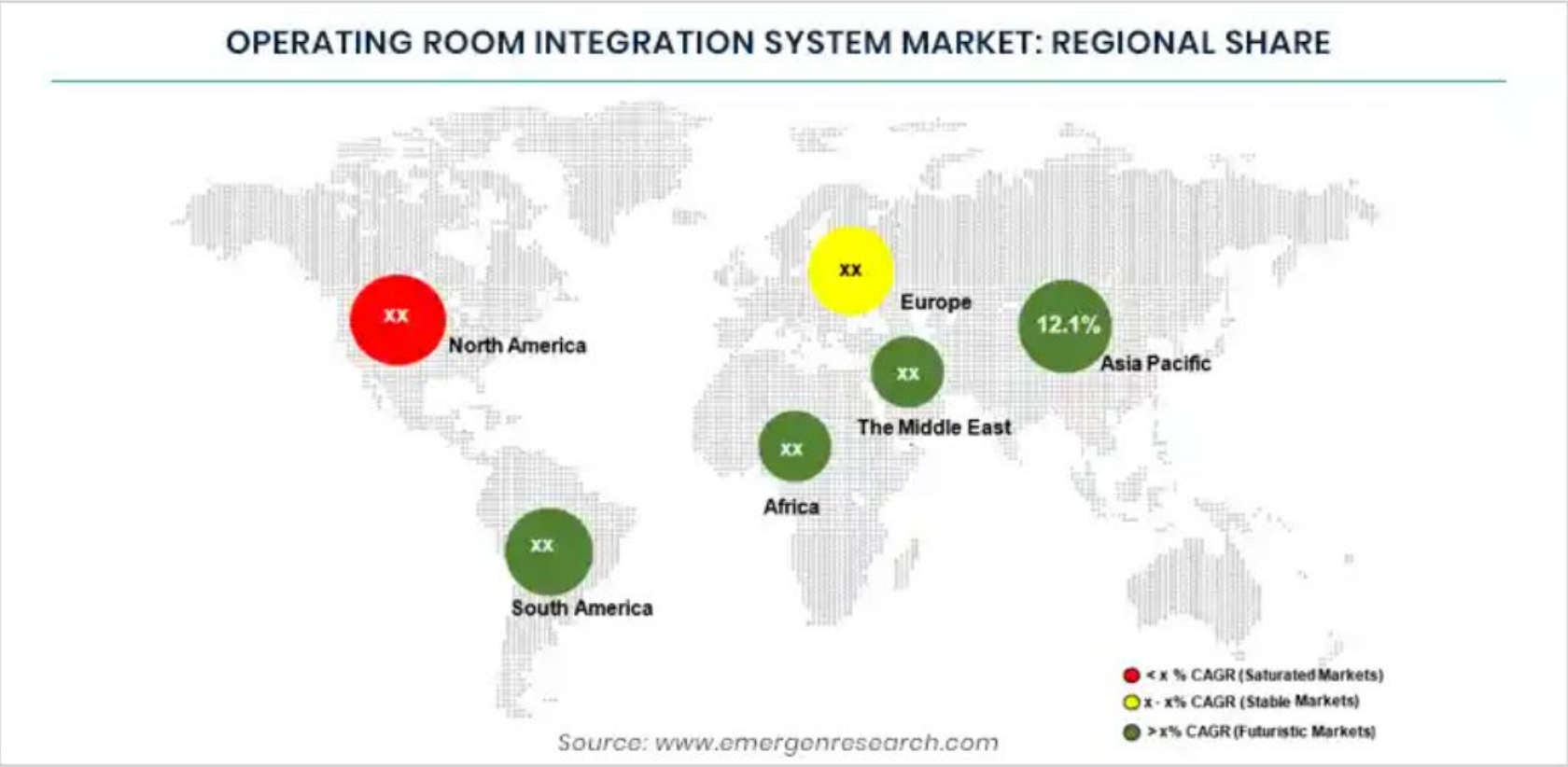


Source: Knight Frank Research

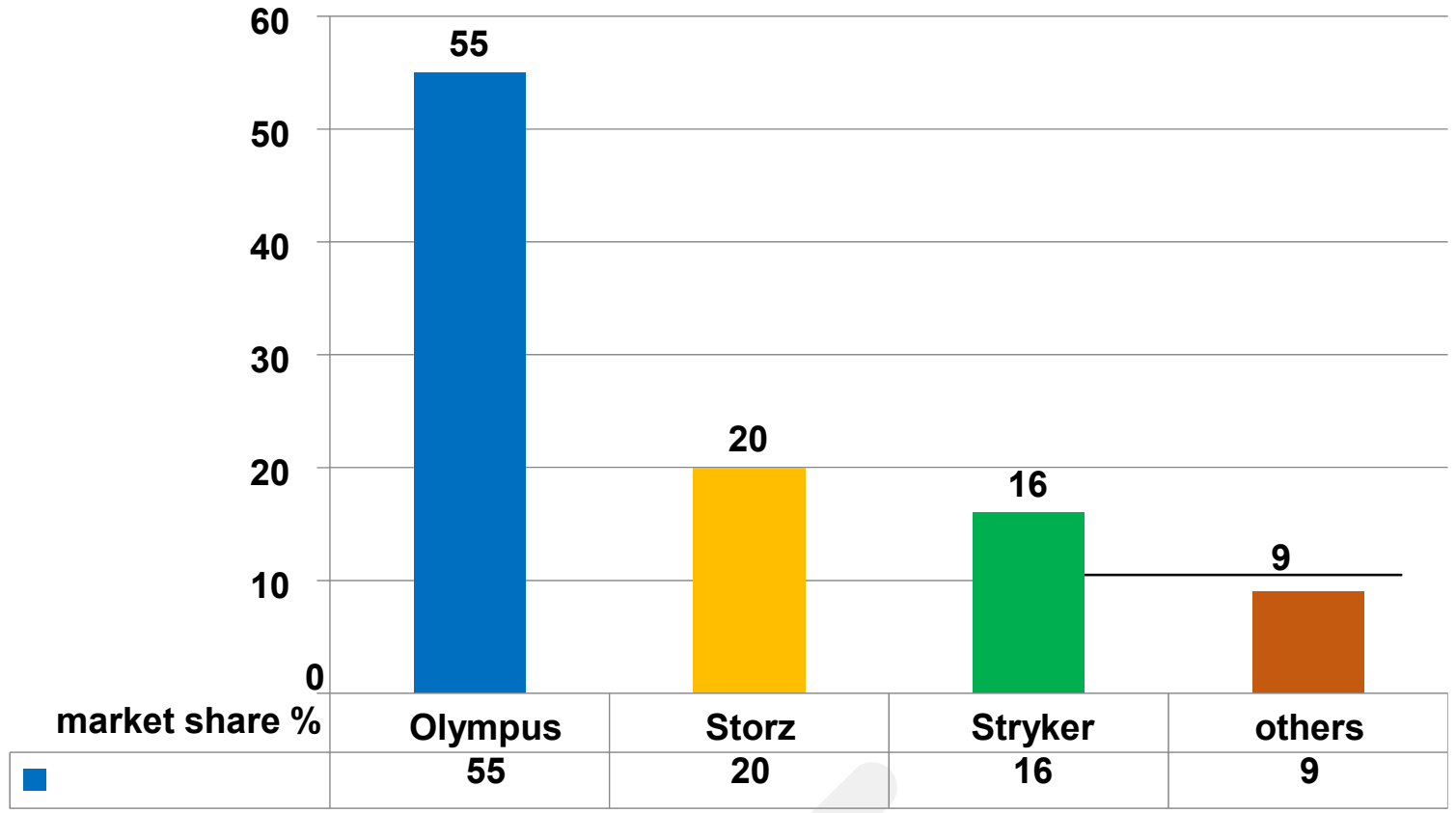
Market size:


Global Operating Room Integration Market
share, by end use, 2021 (%)
Hospitals
Ambulatory Surgical Centers (ASCs)
GRAND VIEW RESEARCH
$1.7B
Global Market Size, 2021
Source:
www.grandviewresearch.com

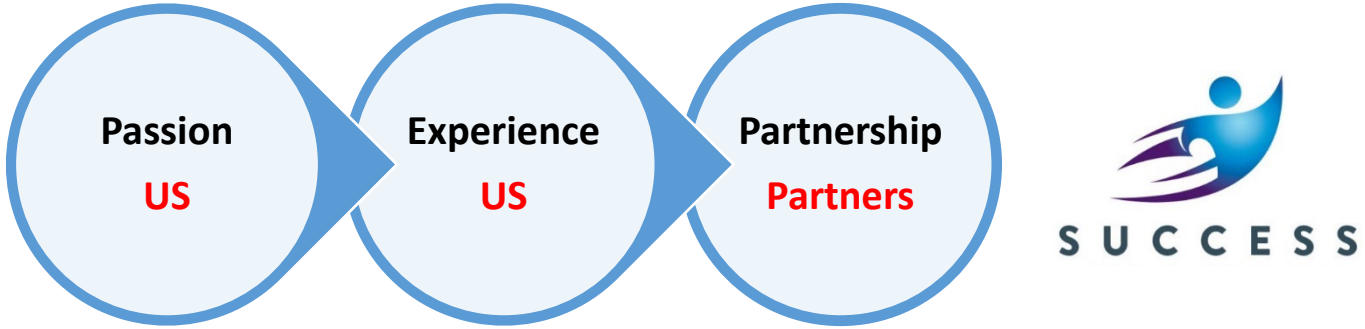
Market size:


OPERATING ROOM INTEGRATION SYSTEM MARKET: REGIONAL SHARE
xx
North America
xx
Europe
12.1%
Asia Pacific
xx
The Middle East
xx
Africa
xx
South America
< x % CAGR (Saturated Markets)
x - x% CAGR (Stable Markets)
> x% CAGR (Futuristic Markets)
Source: www.emergenresearch.com

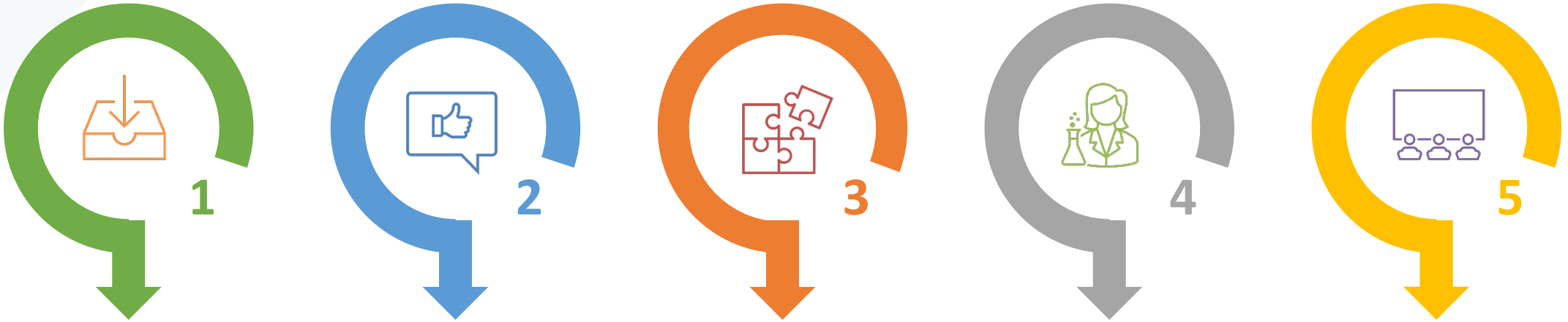
Market competition:



Go To Market Plan:

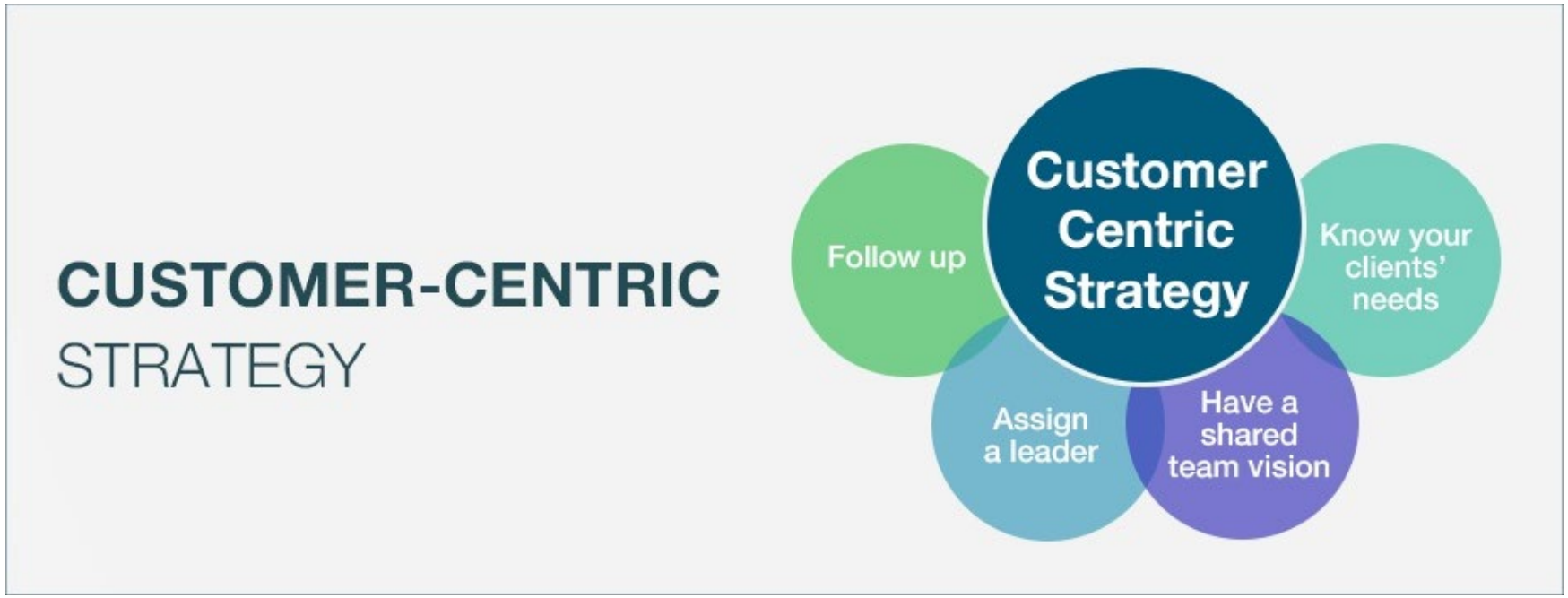


Roadmap:



1. **Product Development**
2. **Partnership Agreement**
3. **Demo Unit Ordering**
4. **Product Evaluation & Client's Feedback**
5. **Sales & Marketing Activities**

Strategy:


CUSTOMER-CENTRIC
STRATEGY
Customer Centric Strategy
Follow up
Know your clients' needs
Assign a leader
Have a shared team vision

Business Model/ Revenue Streams in Saudi:

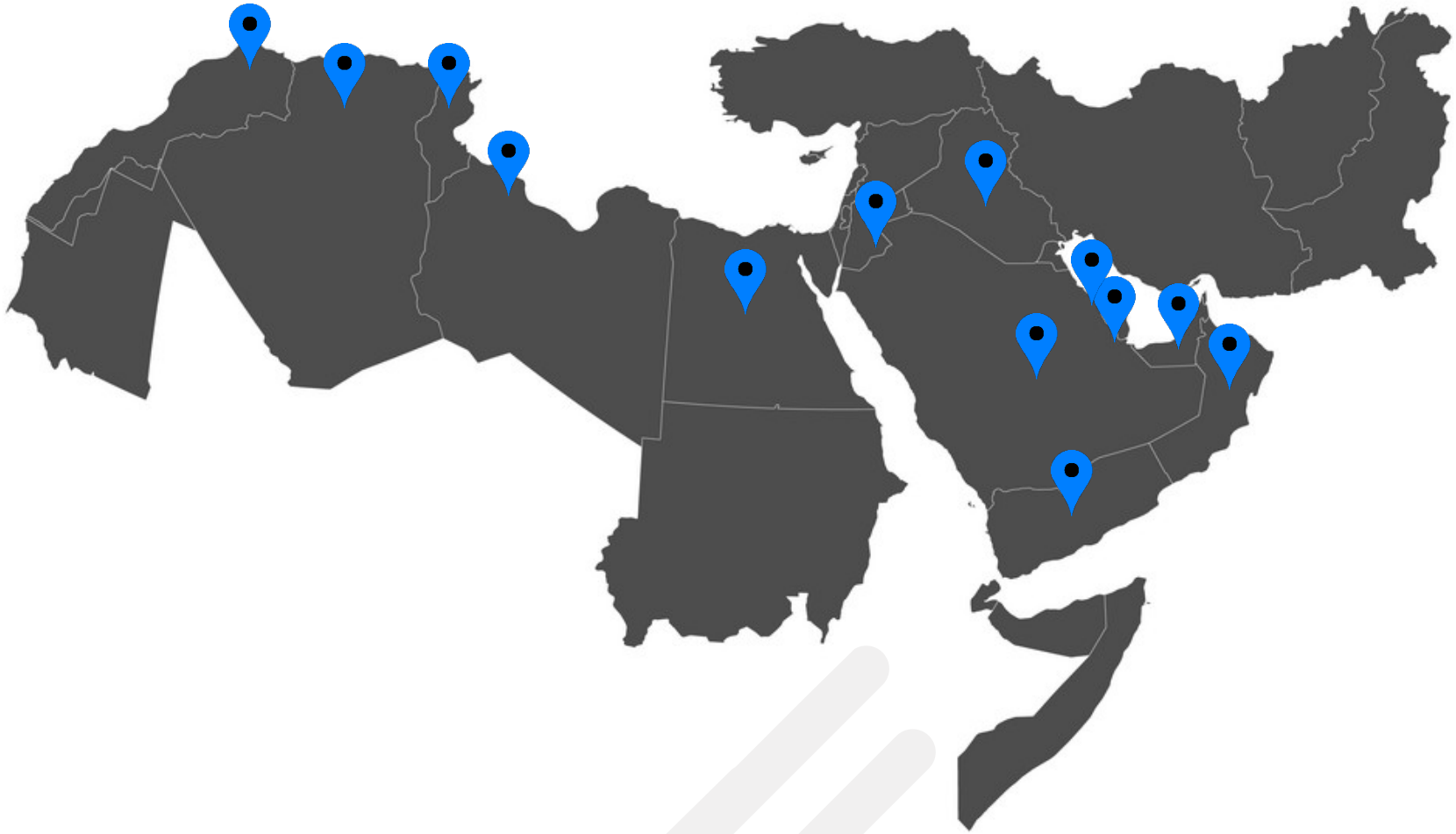
Revenue Stream

1. Sales of the OR solution (Direct+Tenders+Turnkey)
2. The flexibility and innovation of the designed solution allow to be easily modified targeting different customer segments and by default additional revenue streams

Conservative Financial Projection at 25% GM

Category	Expected Revenu 2023	Expected Revenu 2024	Expected Revenu 2025	Expected Revenu 2026
Digital OR	SAR 950,000.00	SAR 1,750,000.00	SAR 3,500,000.00	SAR 6,000,000.00
Tele-health		SAR 1,000,000.00	SAR 2,000,000.00	SAR 3,000,000.00
Digital ICU		SAR 500,000.00	SAR 1,000,000.00	SAR 2,000,000.00
Total	**SAR 950,000.00**	**SAR 3,250,000.00**	**SAR 6,500,000.00**	**SAR 11,000,000.00**

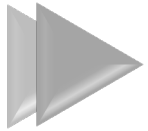
Future Expansion:



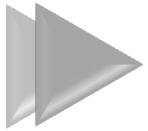
Ask:

We are looking for **1.8M** SAR to finish development of our designed solution, doing pilots, launch new office, and hiring key team. Distributed in the below channels.

Product Overview:

Play video 

https://drive.google.com/file/d/1_1Ovw3RqaJ1B_TWYpyZRi_c-SYSNkaYZ/view?usp=drivesdk

SW Prototype Link 

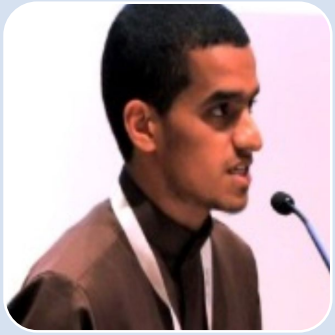
http://medical-worx.ammari.live

Validated MVP at Almoosa H.

Success Team:

Essam Khalil

BDM – Team Leader



Younes Ammari

AI Developer

Akram Al Bashir

Technical Engineer

Azhar AlBarrak

MIS Officer

Samah Alaa

Admin Officer

Who we are:

Essam Khalil,
Dynamic professional with an exceptional multi-faceted background in both of **Business Development** and **Sales Leadership** functions within healthcare and commercial industries with a history of record-breaking sales and marketing experience.

A proven track record over 18 years of developing long-term business relationships. A reputation for delivering and sustaining revenues within highly competitive markets by aggressively identifying opportunities, developing business focus and providing tactical business solutions.
Building company strategy and responsible for execution setting the method of work.

SCIENTIFIC QUALIFICATION

- Bachelor's degree in Pharmaceutical Science
- Certified Project Management Professional (PMP)
- Six Sigma White Belt from The Council for Six Sigma Certification (CSSC)
- Digital Marketing Certification by Google
- Quality Ambassador by SASO

Who I am:

Younes AMMARI,
6th year **medical student** at Ferhat Abbes Setif 1 University, **an AI enthusiast** specially in **healthcare, Digital Health**.

Programmer (Python, ReactJs, React Native)
Winner team HACKATHON TAHADIJIMACT Oran (national)
First Runner-up Startup Weekend SBA Competition (national)
Generative AI international Hackathon Certificate by lablab.ai (Top 5 Projects among 1740 projects)

SCIENTIFIC QUALIFICATION

- Undergraduate in Medicine (MD).
- Fundamentals of Deep Learning by NVIDIA.
- Future Fit Career Accelerator by Future Fit Career Accelerator.
- Intro to Machine Learning by Kaggle.
- Introduction to Biomedical Engineering by Rwaq رواق

Who I am:

Azhar Albarrak,
Dynamic professional with an exceptional multi-faceted background in both of **Business Intelligence** and **Cloud Solutions Architects** within Banking industry with a history of high quality generating professional analytics experience.

Self-driven MIS, looking to expand my hands-on experience working on Data analysis and Business intelligence, being responsible for the planning, designing, development and evaluating systems.

SCIENTIFIC QUALIFICATION

- Bachelor's degree in Management Information Systems
- Certified AWS Solutions Architect Associate
- Data Entrepreneur, build data driven product
- Retail Banking Foundations

Who we are:

Akram AlBashir,
Talented and goal-driven Sales & Project Manager with over 14 years of professional experience in service & Project and sales roles.
Proven record of meeting and exceeding sales targets, strong communication, and problem-solving skills, as well as a background of hands-on team building and mentoring.

Developed sales strategy based on research of consumer buying trends and market conditions.

SCIENTIFIC QUALIFICATION

- Bachelor's degree in Bio-Medical Engineering Technology
- Certified Project Management Professional (PMP)
- ISO 9001:2015 Transition
- Authorized service trainer of LINET products
- Strategic Planning Training from HP

Who we are:

Samah Alaa,

An Administrator provides office support to either an individual or team and is vital for the smooth-running of a business. My dutymay include fielding telephone calls, receiving and directing visitors, word processing, creating spreadsheets and presentations, and filing.

SCIENTIFIC QUALIFICATION

- Bachelor’s degree in Law

Thank You

Essam Khalil
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Dr.esamkhlil@gmail.com