Intangible Assets

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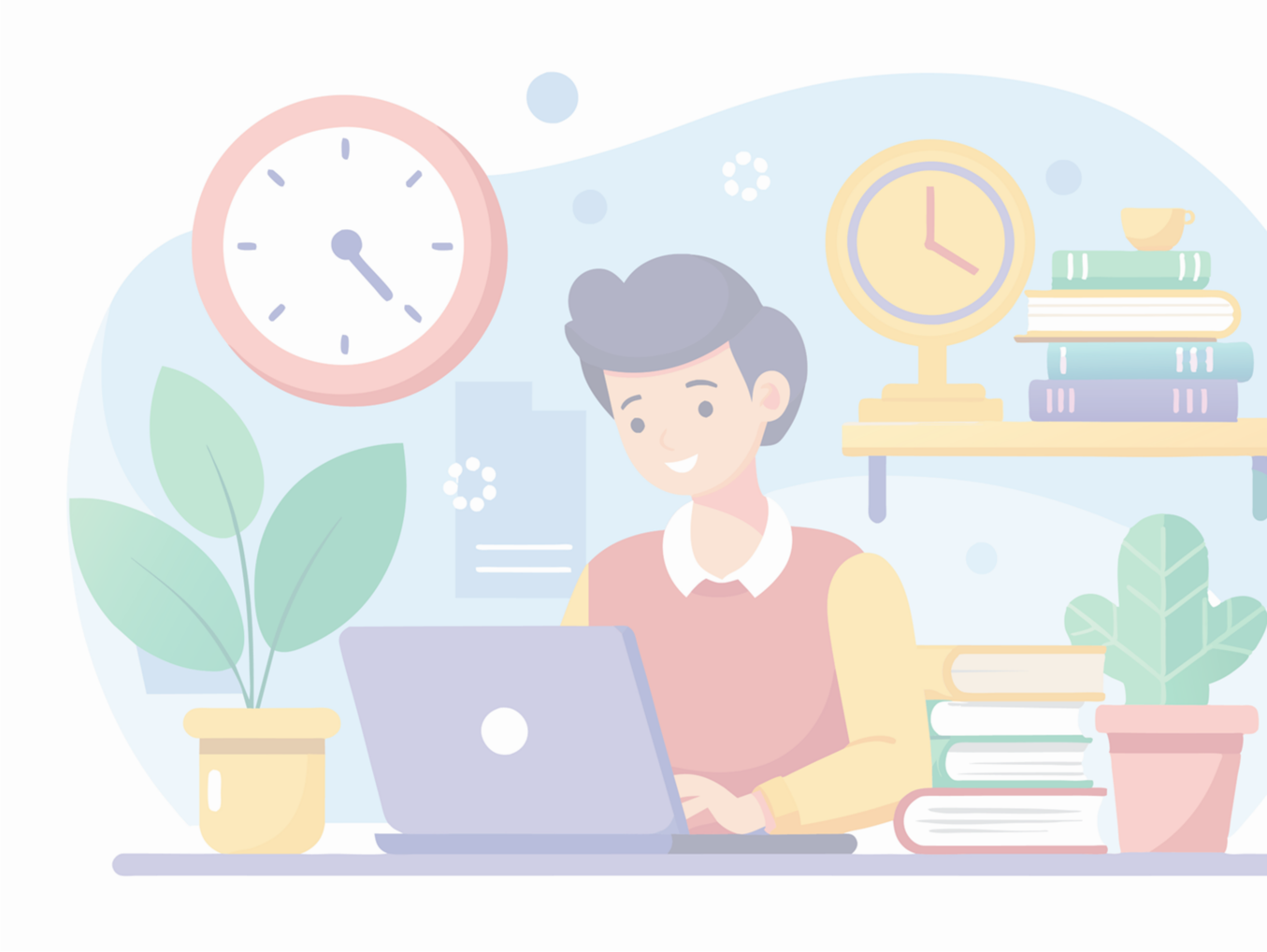
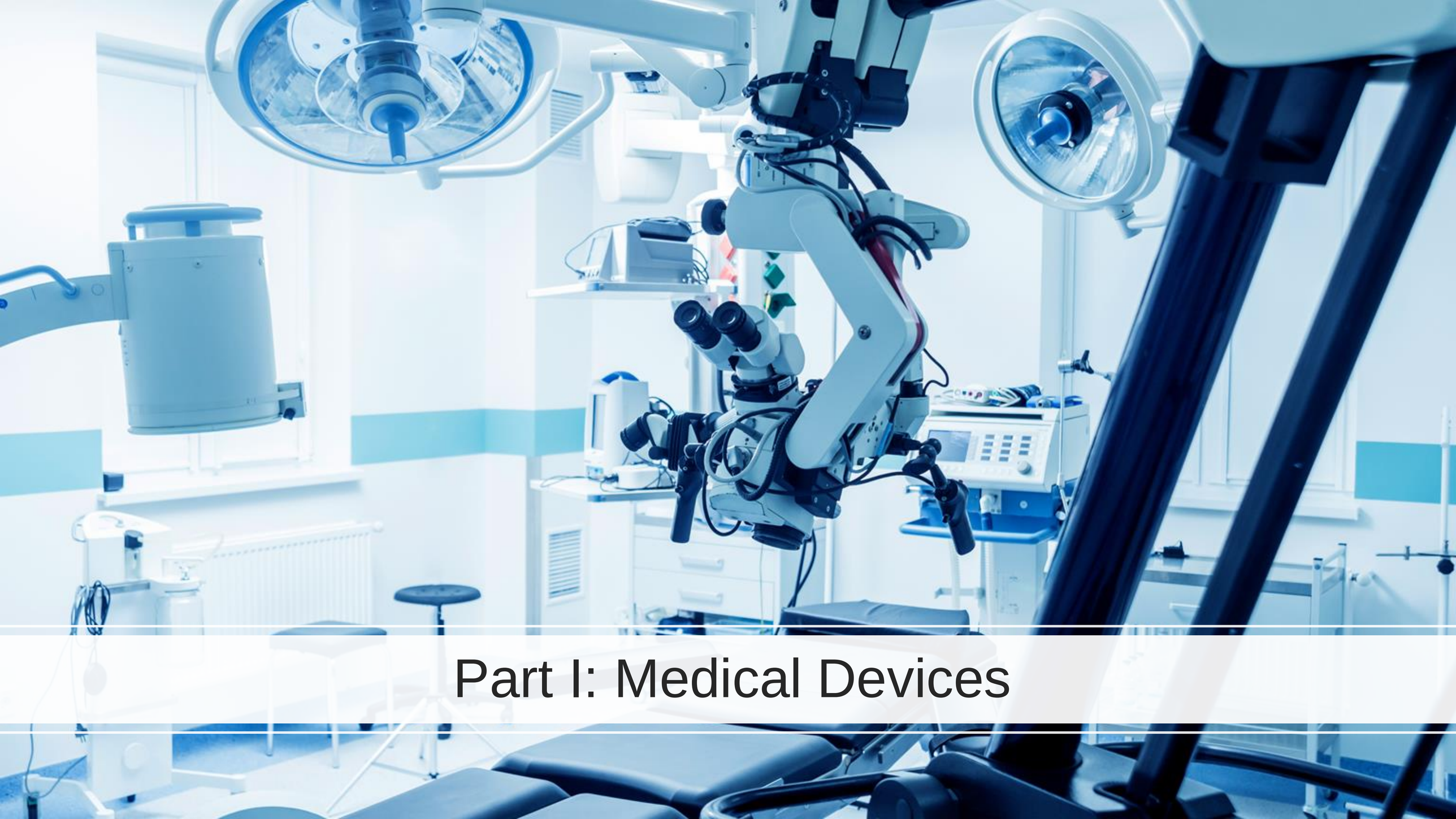
Intangible Assets - Overview

Part I: Medical Devices

Part II: India Stack



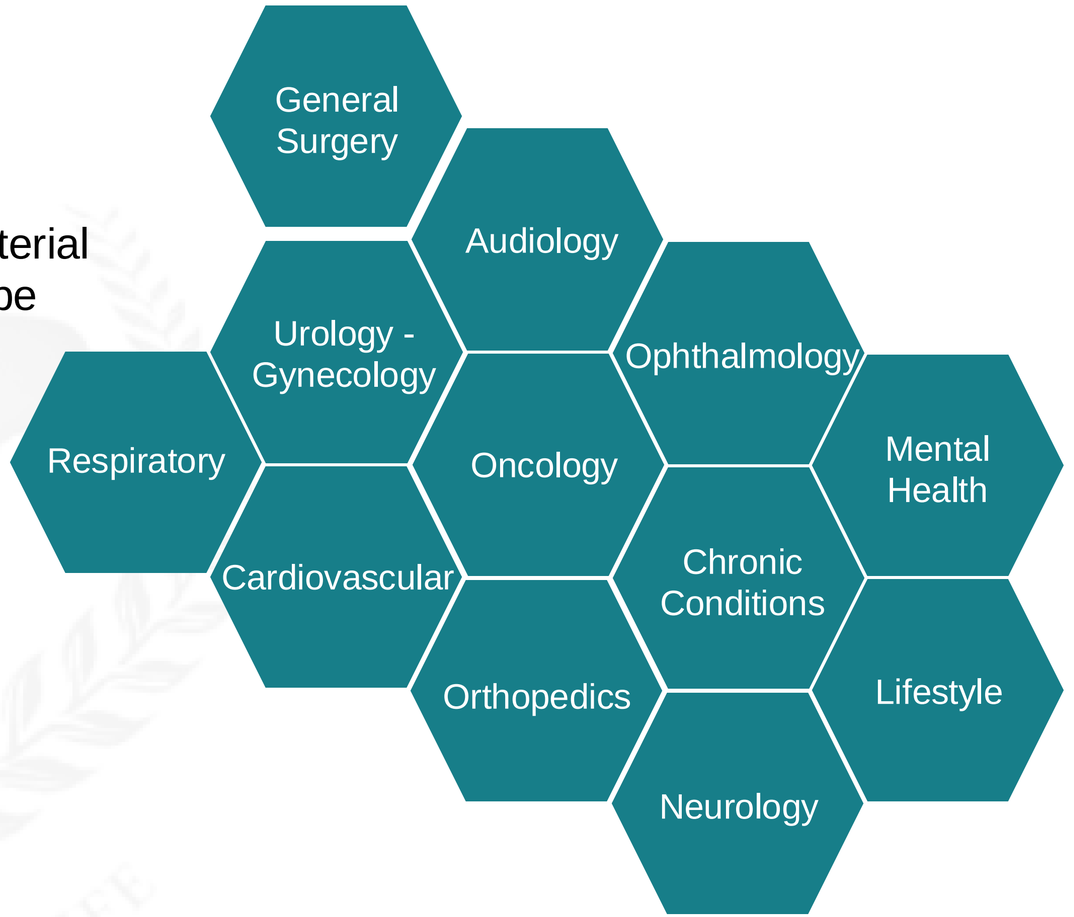


Part I: Medical Devices

Quick Background

What is a Medical Device?

A medical device can be any instrument, apparatus, implement, machine, appliance, implant, reagent for in vitro use, software, material or other similar or related article, intended by the manufacturer to be used, alone or in combination for a medical purpose.



What is it used for?

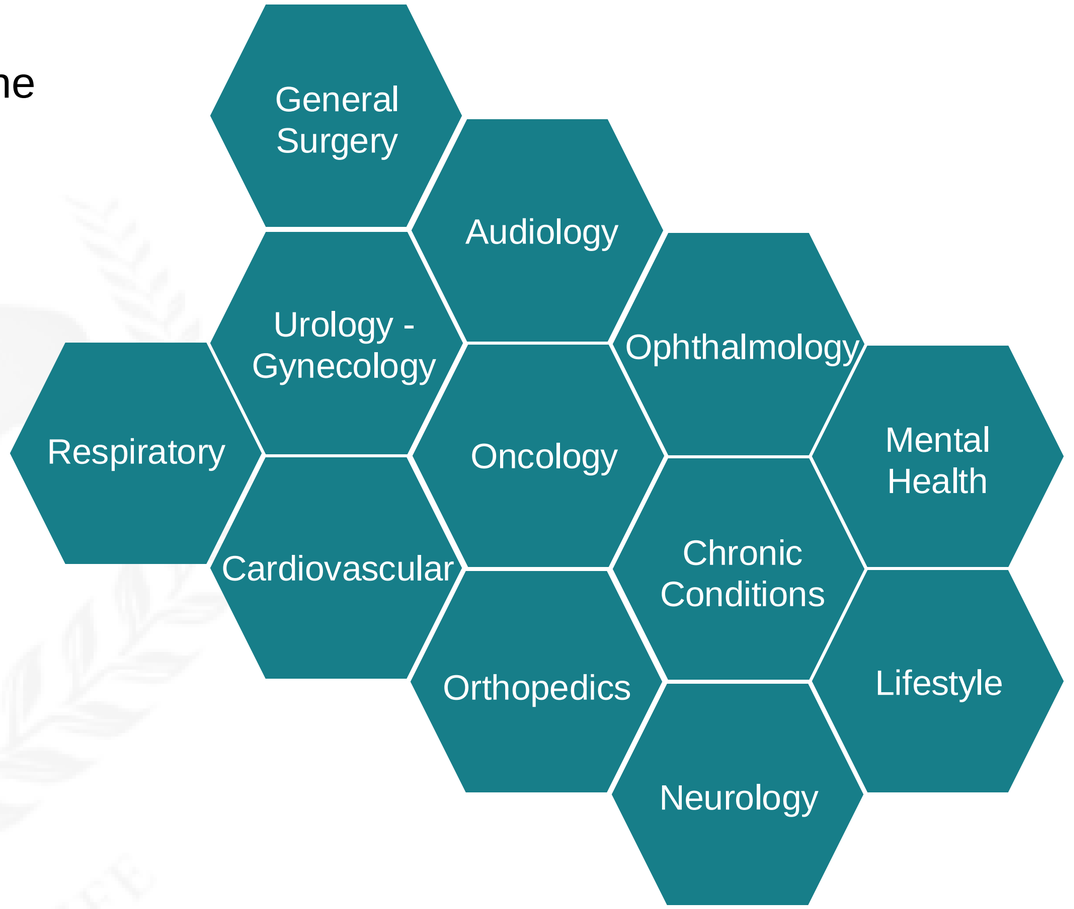
- To diagnose illness
- To monitor treatments
- To assist disabled people
- To intervene and treat illnesses, both acute and chronic

Quick Background

An estimated 2 million different kinds of medical devices on the world market, are categorised into more than 7000 generic device groups.

<u>Medical devices are used in many diverse settings</u>

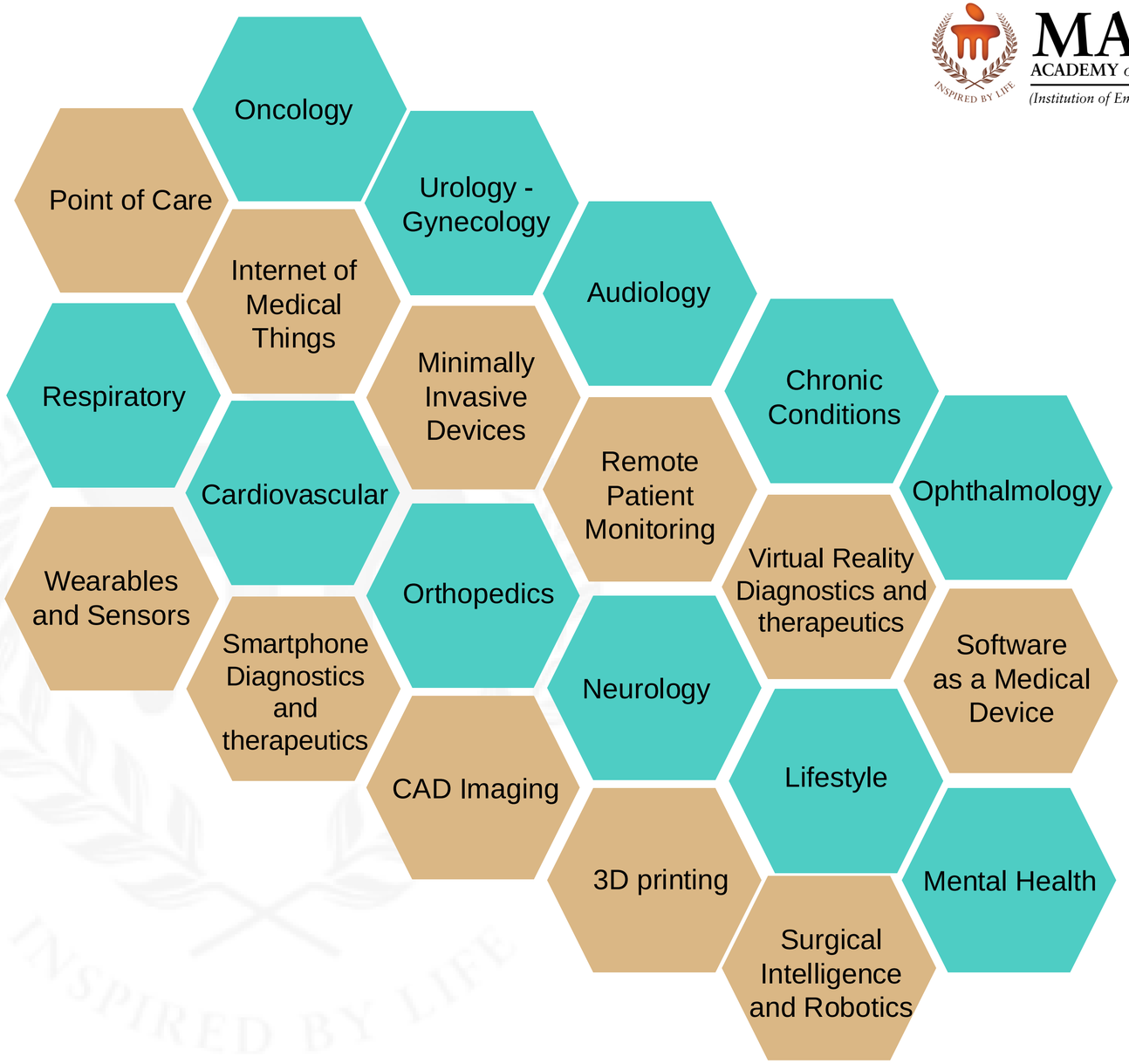
- By laypersons at home
- By paramedical staff and clinicians in remote clinics
- By opticians and dentists
- By health-care professionals in advanced medical facilities

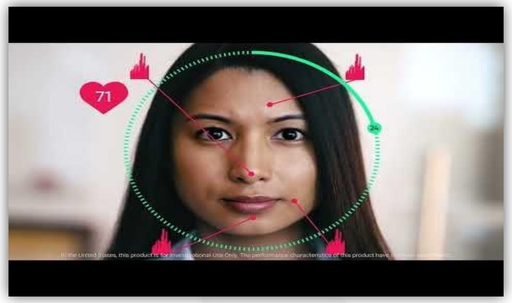


Playfield and Evolution

At the intersection:

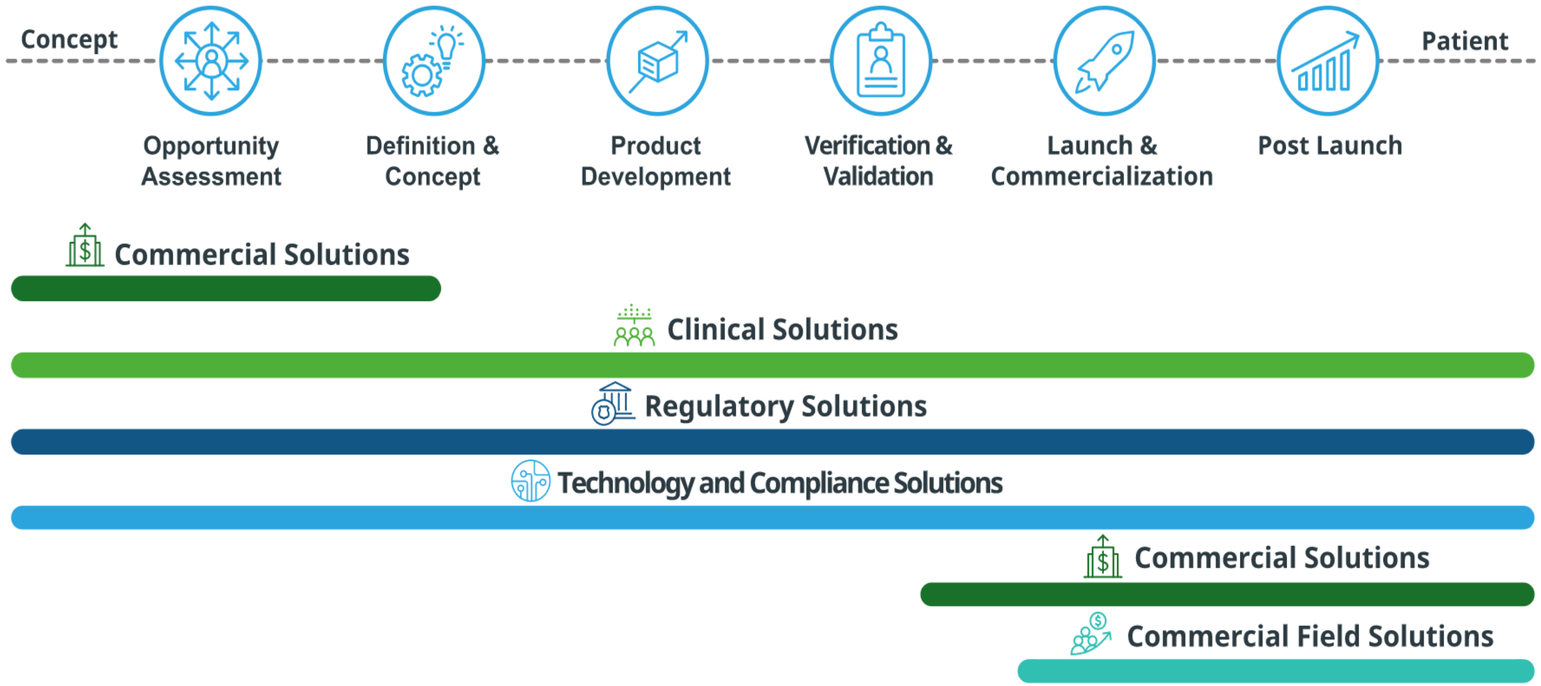
- Disease Area
- Both Hardware and Software
- Proprietary Data
- Both Cloud and Edge
- Practitioner/Patient





Playfield and Evolution

Full Product Lifecycle Solution

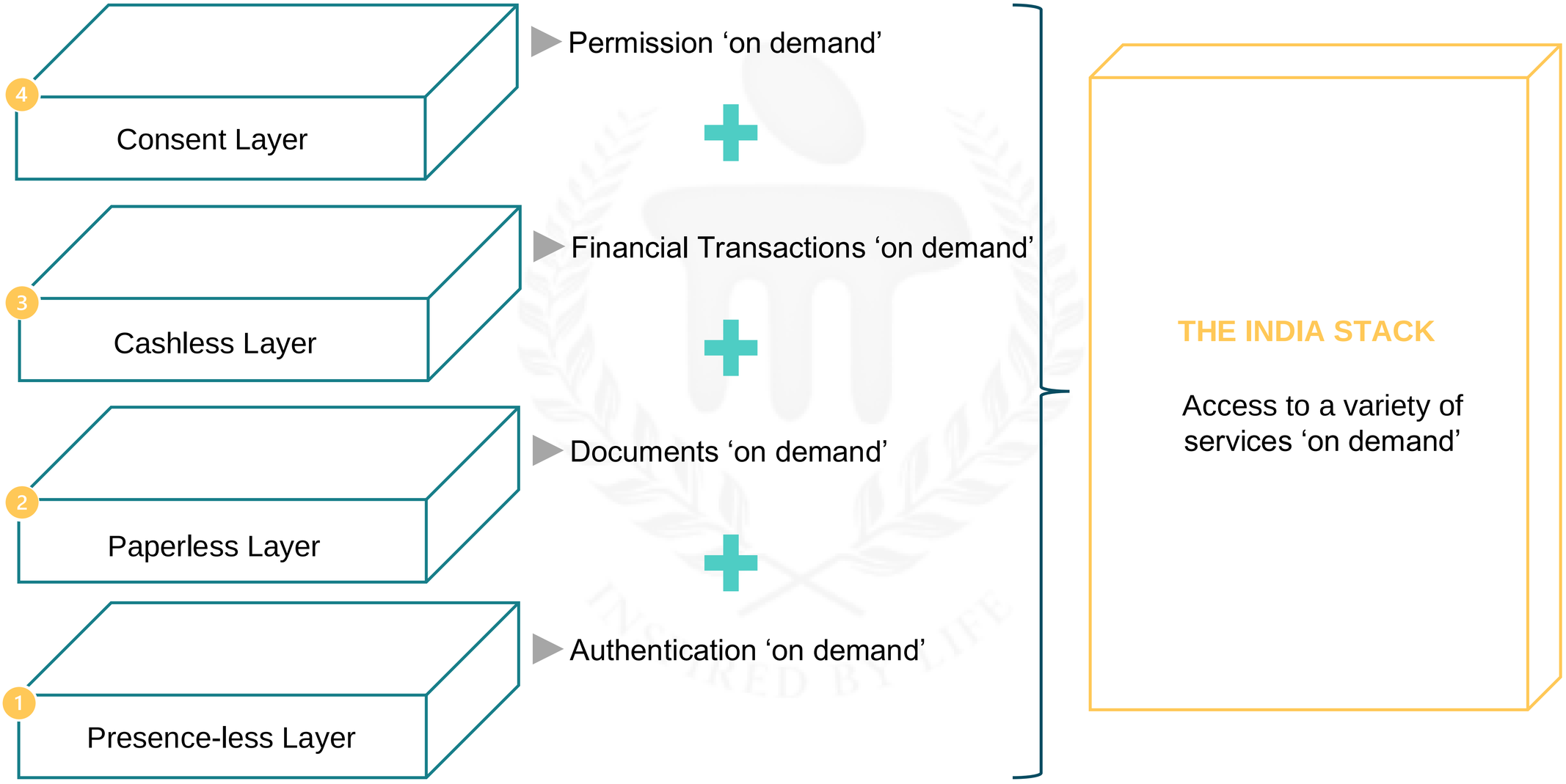


Source: IQVIA website

Part II: India Stack

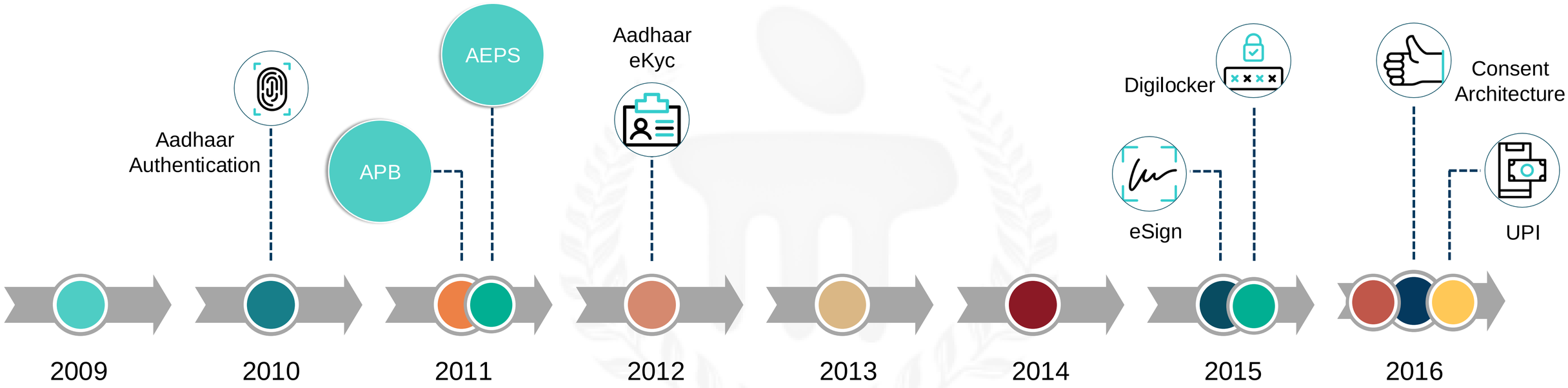
India Stack: Population Scale

Can you Use Digital Technology to Move The Needle? Inclusion, Formalisation And Economic Growth



Evolution of Digital Verification in India

The Digital Ecosystem in India is scaling rapidly due to the rapid growth of technology, supported by government initiatives.



	2014	2015		2016
JDY		100 M	190 M	250+ M
Aadhaar		600 M	950 M	1 + B
Mobile		944 M	1005 M	1 + B

- Aadhaar card is the National Identity card issued by the Government to every Indian
- APB (Aadhaar Payments Bridge): Facilitates seamless transfer of all welfare scheme payments to beneficiary residents' Bank Account
- AEPS (Aadhaar enabled payment system): Leverages Aadhaar online authentication and enables bank accounts to be operated anytime

2016: The Breakthrough Year for Digital India

MANIPAL ACADEMY of HIGHER EDUCATION
(Institution of Eminence Deemed to be University)

Year of JAM: Jan Dhan Yojana, Aadhar and Mobile

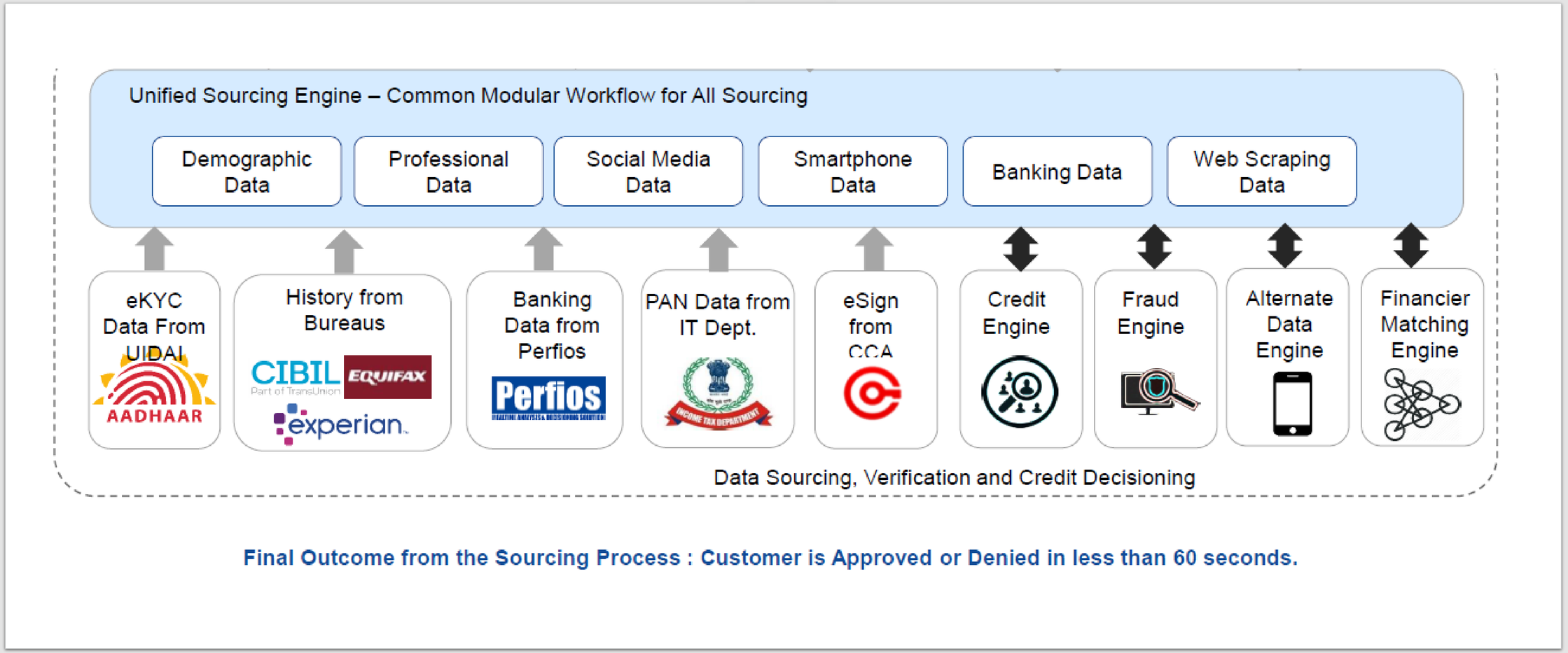
- India reached 1 billion Aadhar cards,
- Launch of UPI, JIO, BHIM
- Demontisation

2016 was the inflection point when people moved from Voice to Data and smart phone penetration took off

Demonetisation gave the first boast to digital payments

Pandemic further gave a push post 2020 for higher adoption

Internal Tech Stack/API's to Integrate to Build An Underwriting Model



Internal Credit Scoring Model

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Credit Risk – Model Parameters

A Bureau Based

- Delinquent trade-lines (Ever 30 on any trade in L6 months)
- Number of Enquiries
- Number of Unsecured Trades (Personal Loans, Consumer Durables)
- Total EMI (derived basis estimates on tenor, ROI)

Source: Credit Bureau

B Social Profile (LinkedIn, Facebook)

- Months since the most recent job
- Organisation and Category
- Total experience
- Education Institution
- Job Stability
- Number of Friends and Customer Location

Source: Customer Provided Access to Social Profile

C Income/Employment

- Customer Income
- Derived income from bureau and SMS reading
- Name of the Employer and Employer Categorisation
- Regularity of Salary Credits

Source: SMS/e-mail classification, Customer Documents

D Merchant Transaction Data

- Customer Transaction Value (live to date)
- Customer Delivery Address (Compared Vs the KYC address)
- Product Value and Product Category
- Type of Product and Seasoning of Purchase

Source: Merchants

Internal Credit Scoring Model

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Credit Risk – Model Parameters

E — Digital footprint
(SMS, e-mails, contacts, call logs, GPS location)

- Category Spends (Travel, Food, e-commerce)
- Customer Balances
- Transaction Velocity
- Loan Payments and Over-dues
- Credit card Spends
- Salary Credits and Name of the Employer
- Call Logs Dedupes
- Customer Contact Cohorts

Source: SMS/e-mail classification, Contact and Call Logs

F — Banking Related

- Customer Balances
- Category of Spends
- Transaction Velocity
- Variation in Balances
- Vintage of the Account

Source: Perflos, SMS/e-mail classification

G — Location Based Parameters

- Customer Location Comparison to KYC Address/ Temporary/ Permanent address
- Negative Areas
- Pincode cohorts

Source: Customer shared location coordinates

H — Other Fraud Parameters

- Customer IP Address
- Distance between KYC Address and Delivery Address
- Number of Times Applied from the Same Mobile Number
- Number of Times Same Delivery Address Used
- Increase Applications from the Same Pincode

Source: Customer IP address demographic parameters

Tech-enabled Proprietary Credit algorithms: Can Capture Far More Data than Traditional Underwriting Models

855	Bureau variables
>1,000	Demographic segment pools
600+	Social media variables
75+	Fraud analytics triggers (location, IP address, time and frequency of transaction)
100+	Digital footprint variables for alternative credit assessment
16	Risk bands for risk based pricing

- **Variables being run through Machine learning algorithms**
- **Continuous assessment** done on the risk model
- **75+ Fraud risk** parameters **augment the credit risk model**

HAPPY LEARNING!