tsti EMS 能源管理系統
Energy Management System

Energy Management System
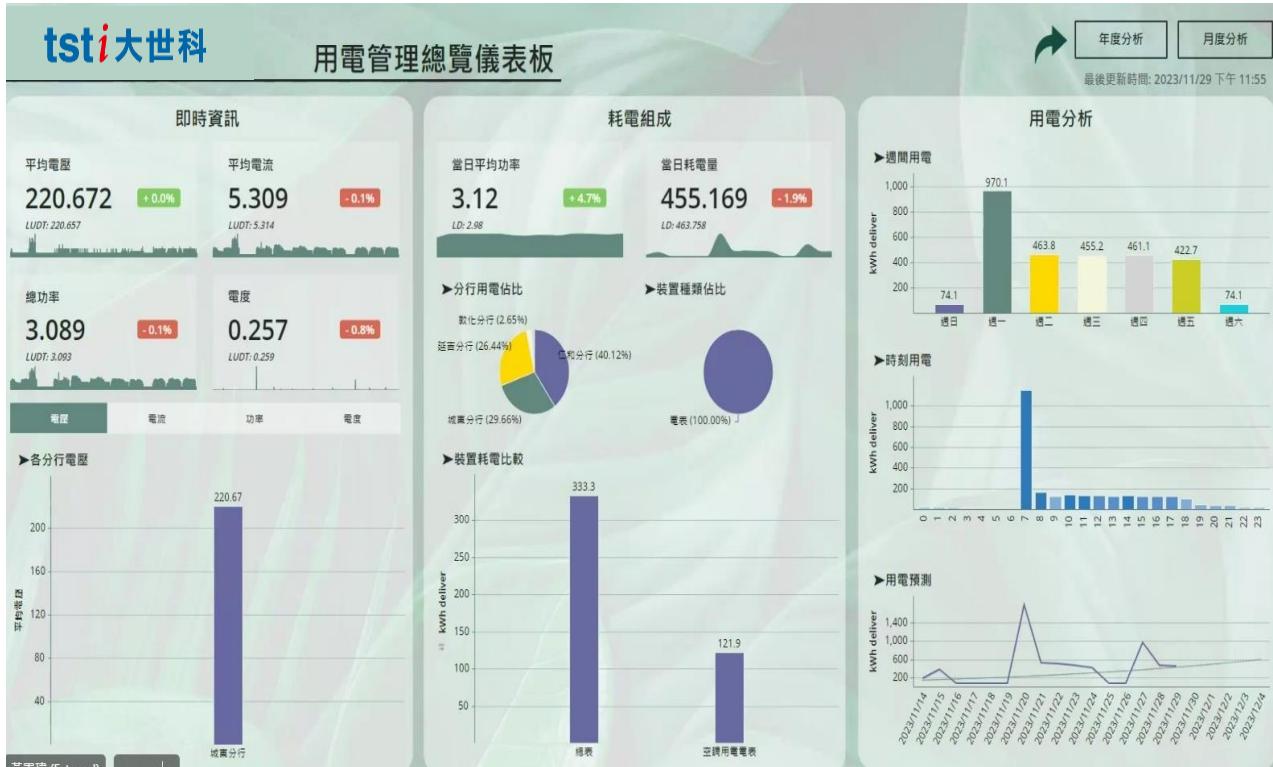
Saving

Storage

Renewable

空壓　空調　電力

儲能　充電樁
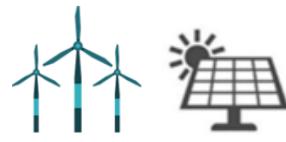
風力發電　太陽能

Purpose

Real-time monitoring and understanding of the power consumption status of equipment to evaluate whether the energy consumption of various electrical equipment is abnormal.

Features

- Data Visualization
- Demand management
- Power analysis

Benefits

- Expected to save approximately 8% of electricity.
- Easy to integrate with multiple protocols.
- Automatically collect data, establish energy baselines, improve energy efficiency.

Energy Management System Flexibility

Cross-platform integration

Energy Management System

ESG AIoT Management System

| 節能	節費	減碳	維運
透過能源管理系統掌握耗電熱點設備及用電高峰	連結儲能系統，以達削峰填股、電價套利等節費應用效益	介接碳盤查系統，完成溫室氣體排放量運算自動化	訂閱制服務維護系統運作狀態及效能

tsti ESG AIoT 戰情管理系統
ESG AIoT Carbon Management System

ESG AIoT Carbon Management System

Real-time carbon emissions, digital x sustainability twin transformation
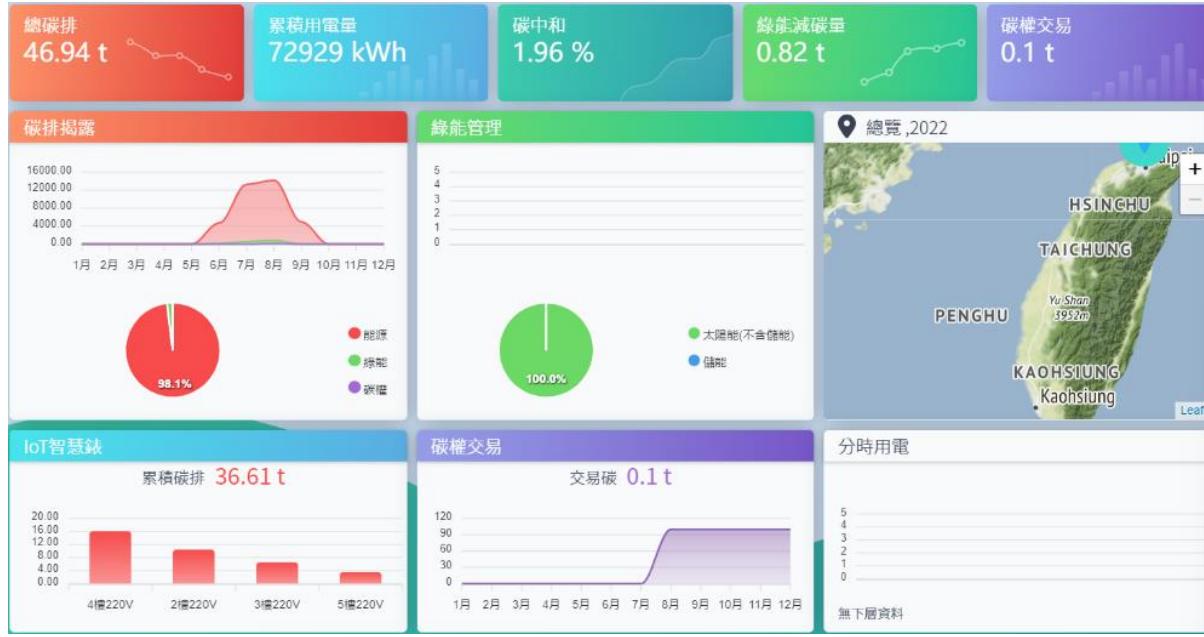
Purpose

因應政府推動2050年達成淨零碳排目標，金管會啟動上市櫃公司永續發展路徑，自2023年起按企業實收資本額分階段推動；2027年前，全體上市櫃公司必須完成溫室氣體盤查且與財務報表範圍一致。環保署也公告應盤查登錄溫室氣體排放量之排放源，包含高排放製造行業以及全廠（場）化石燃料燃燒產生之年溫室氣體排放量達2.5萬公噸二氧化碳當量(CO2e)以上者。

Feature

- ISO14064-1 / ISO14067 Carbon footprint calculation
- Data visualization of carbon and energy use
- Multi-sensors integration for automatic calculation

Benefits

With IoT sensors such as smart meters to complete automated carbon emission calculations, reducing manual recording costs and transcription error rates. The cloud platform integrates with different equipment and platform such as "EMS Energy Management System",

Consultation	Implementation	Service
企業能源健檢	再生能源	數據資安
溫盤輔導	儲能建置	客製化開發
低碳節能規劃	創儲節能一站式管理	訂閱制更新

TATUNG　國 家 數 位 轉 型 推 手

ESG Total Solutions

Goal	Carbon Management	Energy Management	Electricity Optimization
Net Zero	**Carbon and energy measurement**	**Energy saving and carbon reduction**	**Solar power and energy storage**

Solution

Carbon footprint assessment

- ISO 14064-1 Greenhouse gases
- ISO14067 Carbon footprint

ESG AIoT system

- Cumulative carbon emissions
- Electricity consumptions
- Data visualization
- Carbon report

Sustainability report verificaiton

Energy management system

- Electricity consumption statistics and analysis
- Demand managing forecast
- Energy efficiency
- Energy monitoring

Other ESG solutions

- Employee experience mgt.
- AIoT Smart Restroom
- tiCARE Smart HealthCare

Solar power plant

- Solar energy self-use
- Feed-in tariff
- T-REC

Energy storage

- Peak-Valley Electricity
- Energy arbitrage
- Backup energy
- Demand management

ESG AIoT Carbon Management System

Input

Output

Smart meters — AIoT Hub — Gateway

ESG Staff — Import

EMS, ESS, ERP — API

- Cumulative carbon emissions and electricity consumption
- Statistical data visualization
- Equipment energy consumption information table

tsti AIoT低碳智慧廁所
AIoT Smart Restroom

AIoT Smart Restroom

智慧廁所導入項目

廁所太臭清潔（氨氣）

衛生紙/洗手乳用完補充

緊急按鈕整合通報

廁間使用人次計算

廁間使用時間異常

跌倒偵測

more

管理者平台介面

物聯感測器

清潔人員行動介面

導入意義

- It's closest to people's livelihood among smart cities
- Data governance through the integration of AIOT
- Sustainable application

服務項目

- On-site planning customization
- Equipment installation, setting and maintenance
- Management system usage

應用效益

- Reduce the cost of labor and consumable waste and strengthen data governance
- Sensors instead of cameras for safety purpose
- Immediate notification of alarm system
- Save water, electricity and energy and strengthen ESG sustainable management

AIoT Smart Restroom Structure


AIoT Sensors
- △ 廁紙感測設備
- △ 異味偵測設備
- △ 人流預警設備
- △ 溫濕度感測設備
- △ 洗手乳感測設備
- △ 傳輸主板

System
- △ 數據無線傳輸費用（4G/ wifi）
- △ 雲端管理與處理費用
- △ 資料儲存與分析報表

Implement
- △ 現場軟硬體系統整合測試
- △ 弱電施工與拉線安裝
- △ 維護
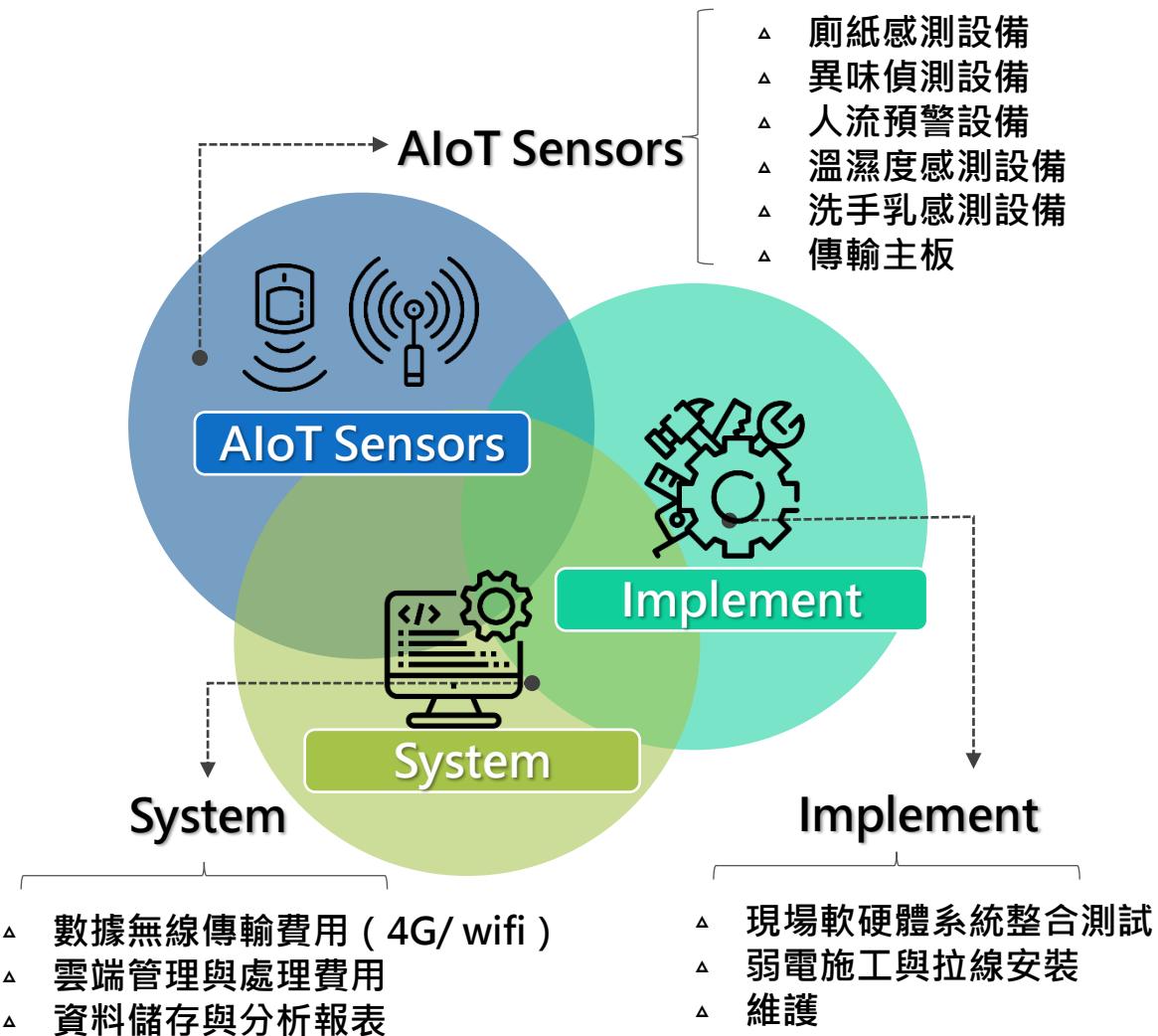
tsti tiCare遠距醫療
tiCare Smart Healthcare

Telehealth System

- Telehealth video provides lens and microphone switches and zoom in/out functions. Doctors can share screen, take screenshots, and record automatically.
- The telehealth platform can be seamlessly connected with the hospital HIS. Furthermore, combined with identity authentication and online payment.
- Promoting national health and welfare, community care, VIP clinics, and health examination center report consultation.

Phone

Patient users (tablet, smart phones)

Doctor users (Laptop, PC)

IT security
WebRTC supports SSL encryption to protect transmitted data

Share screen

Zoom in and out

Patient users

Mobile payments:

Consultation completed

Link to the hospital's designated payment interface (third-party payment, hospital APP/webpage)
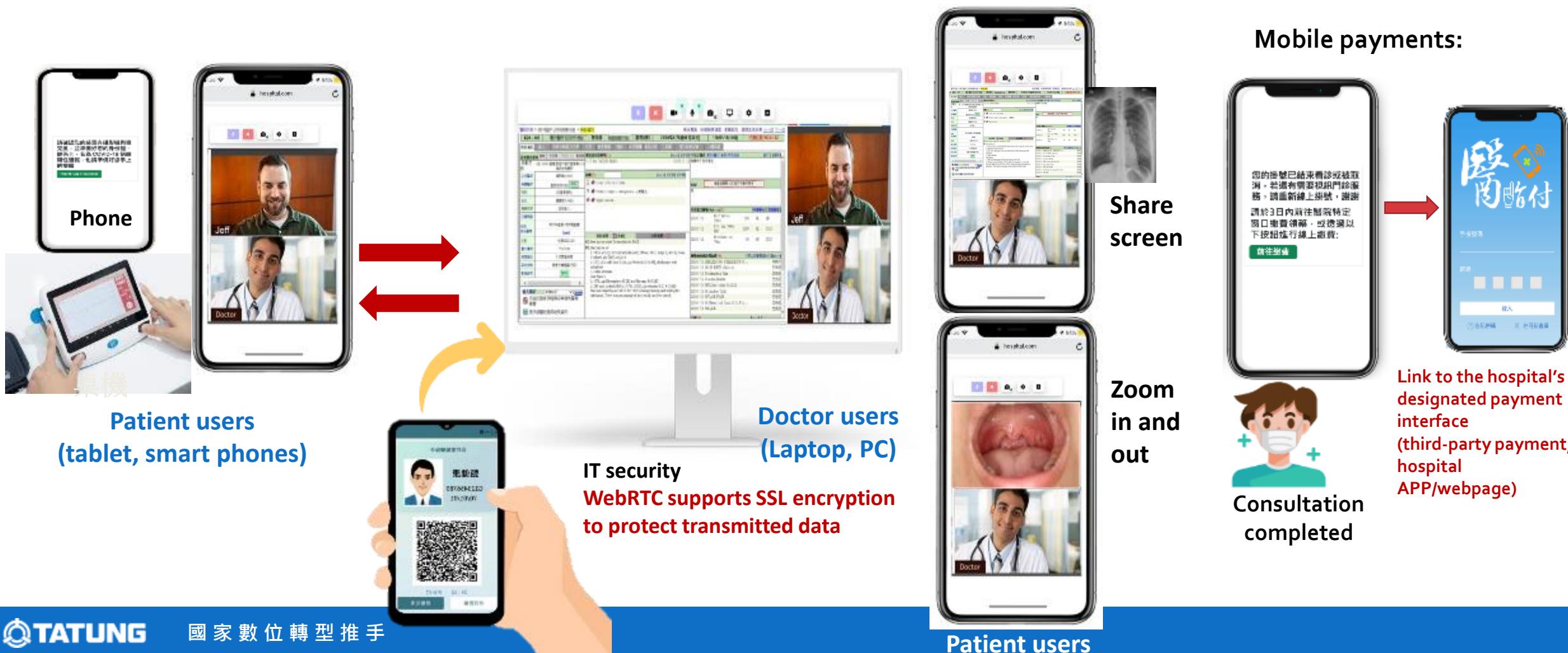
Telehealth System Scenarios

Telemedicine / Health Consultation

Patients with medication questions can consult through the platform during the according sessions provided by the hospital.

Remote consultation
(TA: residential area)

The elderly can regularly go to specific areas of the building to receive online consultation services from hospital nutritionists and health education staff.

TeleClinic（ TA：households ）

Provide patients with home quarantine, mild symptoms, chronic diseases, etc. to complete outpatient consultations through video conferencing without the need to go to a physical hospital.

**Teleconsultation（ TA：rural areas ）**

Patients in mountainous and remote areas can go to local clinics and have remote consultation with doctors from large hospitals to conduct the diagnosis.

TATUNG 國 家 數 位 轉 型 推 手

Digital Health Cloud Application: check-up, corporate consulting

Combined with remote video to provide health consultation after **corporate physical examination**, and establish a **personalized health** warning, control and suggesting plan.

Intelligent, refined and personalized physical examination consultation plan

Employee check-up	Physical result	Personalized assessment	Set health goals	Online consulting	Health education	Regular tracking

Visualisation

Health team

Telehealth

ibo.ai voice/text bot

Regular tracking of physiological measurement
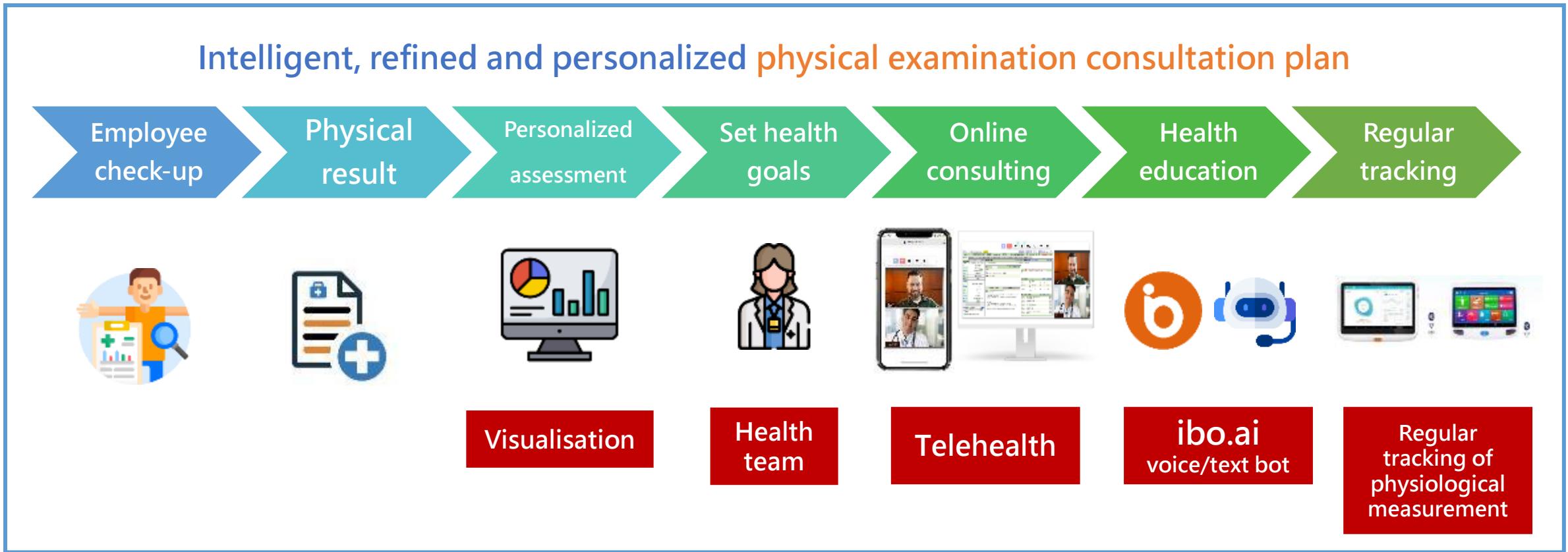
ibo.ai Kiosk: Virtual Hospitality Robot

The machine interface is customized according to needs and functions, perfectly matching the hospital design.

Voice Chat Bot:

- FAQ

- Floor plan introductions

- On-site registration

- Live call transfer service

Customer service