

SOLUTION BROCHURE

RTLS · RFID · Zones · Maintenance

UAE

HOSPITAL ASSET TRACKING UAE

Hospital Asset Tracking System

Real-time location for pumps, beds, monitors and wheelchairs — so clinical staff stop searching for equipment and biomedical engineering stops buying replacements for assets the hospital already owns.

WEBSITE

swedishtechology.com

info@swedishtechology.com

WHATSAPP / TEL

+971 56 404 6555

Abu Dhabi & Dubai, UAE

Equipment That Can Be Found

Mobile medical equipment migrates. An infusion pump follows a patient to imaging and stays there. A wheelchair ends up in a corridor three floors away. A ward that cannot find a pump borrows one and does not return it, and the ward it came from orders another.

The result is familiar in every hospital: nurses searching instead of nursing, equipment hoarded in cupboards because it cannot be found when needed, and a capital budget spent on assets the hospital already owns but cannot locate.

SEARCHING TO LOCATING

Finding a pump

Walking wards to a search

Hoarding

Rational to unnecessary

Maintenance due

Chased to located

Utilisation

Assumed to measured

Recall action

Ward by ward to a list

Asset register

Estimated to verified

WHAT CHANGES FOR EACH GROUP

Clinical Staff

The nearest available pump, by ward and room, on a screen — rather than a walk down three corridors and a phone call to a colleague.

Biomedical Engineering

Devices due for service or calibration can be located and collected, instead of a maintenance schedule that slips because the asset could not be found.

Finance and Procurement

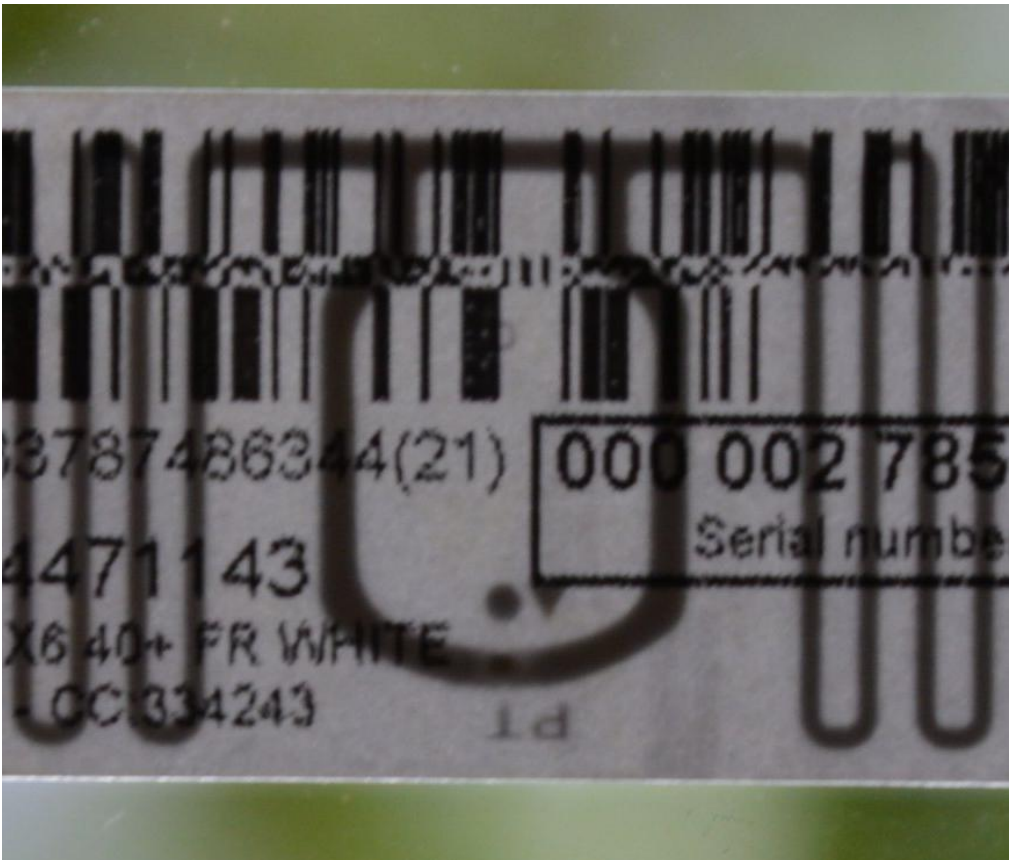
Purchasing decisions based on measured utilisation rather than on the ward that complains most persuasively.

Room-Level, Not Metre-Level

Clinical staff need to know which room an asset is in. Precision beyond that adds cost and infrastructure without changing what anyone does, and over-specifying is how these projects become unaffordable.

The Register Is the Real Deliverable

Locating equipment is the visible benefit. The lasting one is an asset register that matches reality — which is the foundation for maintenance, recalls, insurance and capital planning.



RESOLUTION

Room / zone level

TAG

Battery or passive

COVERAGE

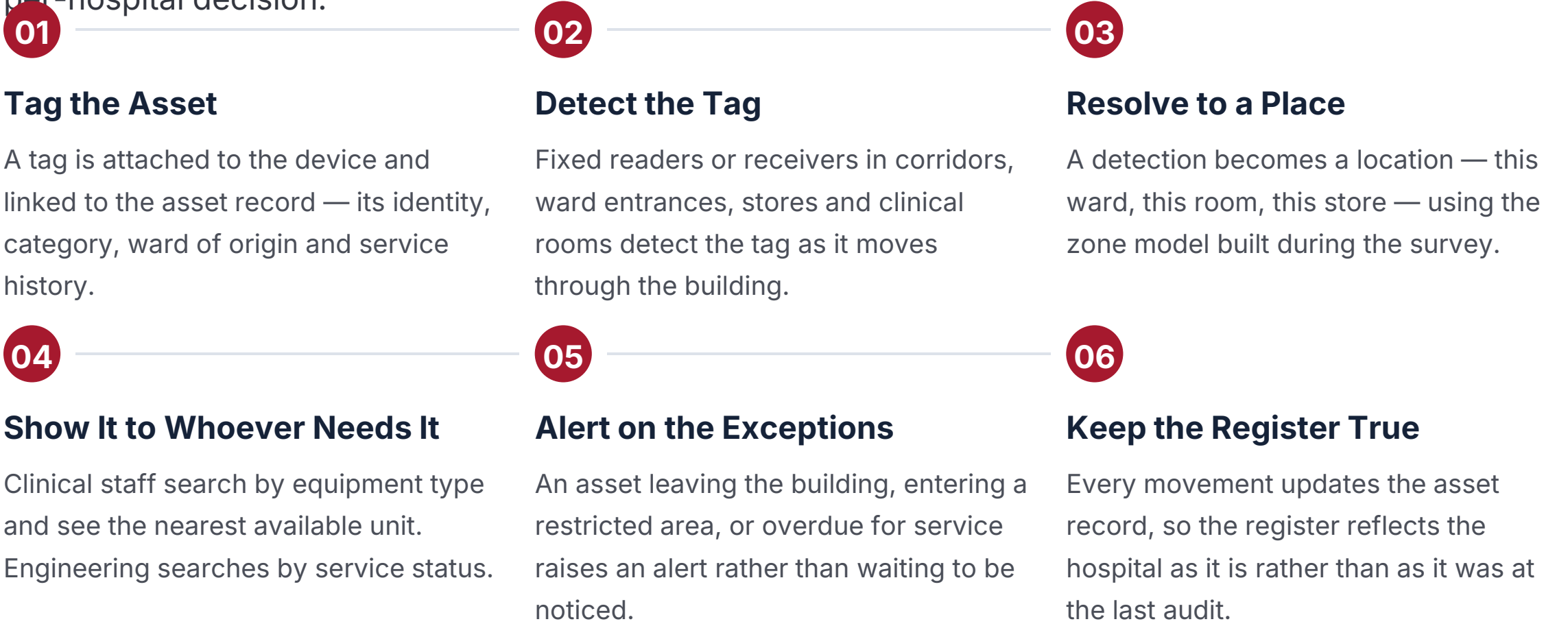
Ward by ward

LANGUAGES

EN · AR

From Tag to Located Asset

Every real-time location system does the same four things: attach an identity, detect it, resolve that detection to a place, and present it to someone who needs it. What differs is the technology chosen at each step, and that is a per-hospital decision.



THE DECISION THAT DRIVES THE COST

Zone resolution decides everything else: how many receivers, which tag technology, and what the system costs. Deciding room-level is enough — rather than defaulting to metre-level because it demonstrates well — is the single most important design choice in the project.

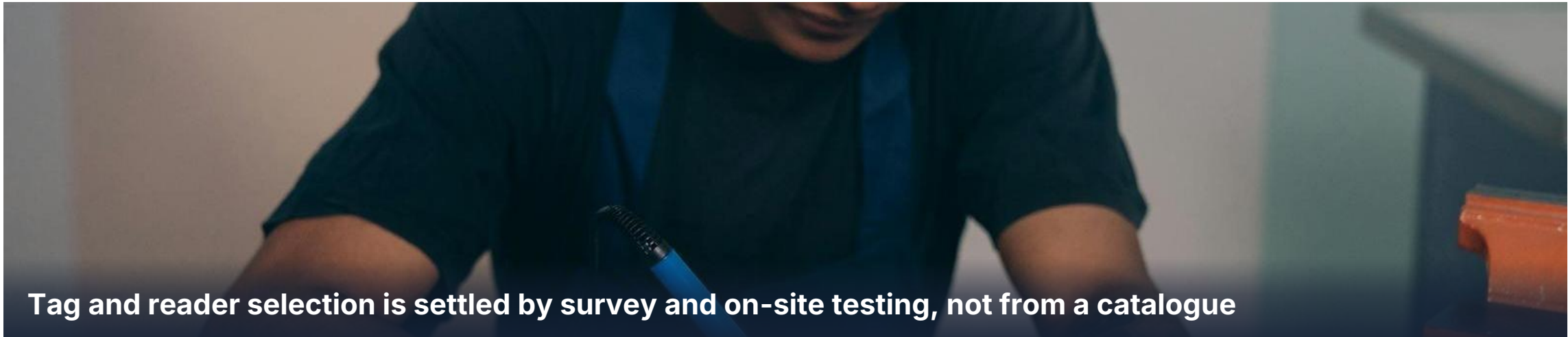
WHAT EACH STAGE DETERMINES

Tagging Determines Scope Which asset categories are tagged decides what the system can ever answer. It is a clinical and financial decision before it is a technical one.	Detection Determines Cost Receiver density is the largest single cost line, and it follows directly from the zone resolution the hospital decides it needs.	Presentation Determines Adoption If a nurse cannot find a pump faster than walking to the next ward, the system will not be used regardless of how accurate it is.
---	---	--

TAG Per category	DETECT Fixed receivers	RESOLVE To a named zone	PRESENT Nearest available
-----------------------------------	---	--	--

Choosing the Right Tag and Reader

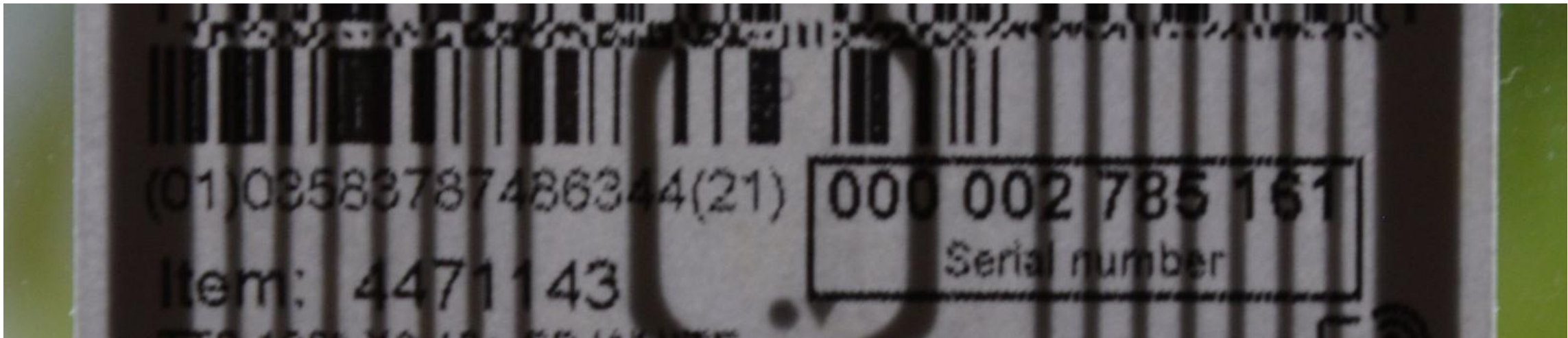
No single technology suits every asset in a hospital. A bed, an infusion pump and a surgical instrument tray have different value, different movement patterns and different cleaning regimes — so they take different tags.



METHOD	SUITS	TRADE-OFF
BLE tags	Mobile clinical equipment	Battery life to manage
Passive RFID	High-volume, low-value items	Needs a read point
Wi-Fi tags	Where the network already reaches	Higher tag cost and power
Infrared	Where room certainty is essential	Line of sight required
Barcode / QR	Low-movement, audited assets	Manual scan needed

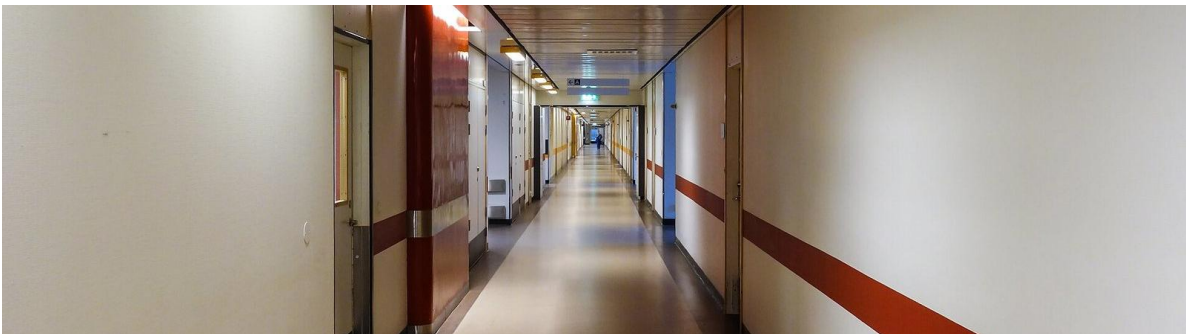
HOSPITAL-SPECIFIC CONSTRAINTS

Clinical Device Policy First Any radio-emitting device is assessed against the hospital's own policy for clinical areas. Where a technology is not acceptable in a given area, the design uses one that is.	Cleanable and Sealed Tags on clinical equipment must survive the cleaning and decontamination regime for that device. Fixing method and enclosure are specified for that, not for convenience.	Battery Is an Operating Cost A tag with a battery is a recurring task for somebody. Tag selection accounts for who replaces them, how often, and how the system reports a tag going quiet.
---	--	--



A Map of Where Things Can Be

A location is only meaningful against a model of the building. The zone model is the part of the project that determines whether the answer is useful — 'Ward 4B, equipment store' rather than a dot on a floor plan.



Zones in Clinical Language

Locations are expressed the way staff describe them — ward, bay, store, corridor, theatre — not as reader identifiers or coordinates.

Coverage Follows Value

Dense coverage where equipment is used and stored; boundary detection at lifts, exits and inter-building links. Uniform coverage everywhere is rarely worth what it costs.

Boundaries That Matter

The building exit, the loading bay and the route to another site are the detections that prevent loss, and they are worth covering properly even where nothing is stored.

WHAT GOOD ZONE DESIGN AVOIDS

- Assets appearing in two zones at once at ward boundaries
- A store and the corridor outside it reading as the same place
- Lifts reporting assets on the wrong floor
- Dead zones in the areas equipment is most often abandoned in
- Alerts that fire every time an asset crosses a normal boundary
- Zone names that mean nothing to the staff searching



ZONES

Clinical language

COVERAGE

Where value is

BOUNDARIES

Exits and lifts

SURVEY

Before any install

Zones Follow the Estate, Not the Hardware

The model is built from how the hospital describes itself — ward, bay, store, theatre — and receivers are then placed to satisfy it. Doing it the other way round produces locations nobody can act on.

Reviewed With the People Searching

Zone names and boundaries are checked with ward staff and engineering before installation, because they are the people who will read the answer under time pressure.



Finding Equipment in Under a Minute

If finding a pump takes longer than walking to the next ward to borrow one, nobody will use the system. Everything in the clinical interface follows from that single constraint.



Search by What It Is

Staff search for 'infusion pump', not an asset number. Categories and common names are how clinical staff think about equipment.

Nearest and Available

Results are ordered by proximity and filtered to what is actually available — not in use, not quarantined, not overdue for service.

On the Device They Have

A ward computer, a shared handset or a personal phone on the hospital network. No dedicated hardware to find before you can find the equipment.

MAKING IT SURVIVE CONTACT WITH A WARD

Reserve, Don't Hoard

Where a ward can reserve equipment for a shift, the reason for hiding it in a cupboard disappears. Hoarding is a rational response to scarcity, and it is solved by making availability visible rather than by policy.

Report What Is Wrong

Staff can flag a device as faulty from the same screen, which puts it out of the available pool immediately and raises a job for engineering.



- Equipment names matched to what staff actually call them
- Search reachable in one step from the ward system they already use
- Availability reflects cleaning and decontamination status
- Faulty devices removed from the pool the moment they are reported



Where Asset Tracking Pays for Itself

The clinical benefit is time saved. The financial and regulatory benefit sits with biomedical engineering, where an asset that cannot be located is a maintenance schedule that slips and a recall that cannot be completed.



TASK	WITHOUT LOCATION	WITH LOCATION
Planned maintenance	Chase the ward	Collect from a list
Calibration due	Slips quietly	Located and scheduled
Safety recall	Search every ward	List every affected unit
Loan equipment return	Written off	Traced to a zone
Annual audit	Physical count	Verified against reads
Replacement decision	By complaint	By measured use



WHY THE RECALL CASE IS THE STRONGEST ONE

A Recall Is Time-Bound

When a manufacturer issues a safety notice, the hospital must identify and withdraw every affected unit. Doing that by walking wards is slow, and being unable to account for one unit is the part that causes real difficulty.

Evidence of Completion

The record shows which units were located, when and by whom — which is what turns 'we believe we found them all' into a defensible position.

The Register Stays True

A register verified continuously by movement does not need the annual physical count that nobody has time for and that is out of date the week after it finishes.

- Maintenance schedules driven by location as well as by due date
- Recall notices actioned against a list rather than a ward walk
- Loan and hire equipment returned rather than quietly written off
- Annual verification produced from movement rather than a manual count
- Utilisation evidence available before the next capital bid
- Quarantined and decontaminated equipment tracked out of the available pool



MAINTENANCE Located, not chased	RECALLS Listed	AUDIT Continuous	CAPITAL Evidence based
---	--------------------------	----------------------------	----------------------------------

Tracking Equipment, Not People

A location system in a hospital raises an immediate and legitimate staff concern: is this going to be used to track us. The answer has to be designed in, stated plainly, and visible in what the system actually does.

Assets Carry Tags, People Do Not

In this system the tagged population is equipment. Where staff badges are used for anything, that is a separate decision with its own consultation — not a side effect of tracking pumps.

No Inference by Proxy

Reporting is built around assets and zones. Views that would amount to monitoring an individual's movement through their use of equipment are not provided as standard.

Retention Is Set

Movement history is retained for the period agreed with the hospital — long enough for recalls and audit, not indefinitely.

Access Is Scoped and Logged

Clinical staff see availability. Engineering sees service status. Full movement history is a restricted, audited function.

WORTH AGREEING WITH STAFF REPRESENTATIVES EARLY

- That the tagged population is equipment, stated in writing
- Which reports exist, and which deliberately do not
- How long movement history is kept, and who can query it
- How a concern about misuse is raised and investigated

STATED PLAINLY

No certification or regulatory compliance is claimed in this document. What is described is design intent — equipment tracking, scoped and logged access, set retention, and a deployment model the hospital chooses. Any compliance position should be assessed against the hospital's own obligations.

TAGGED

Equipment only

REPORTS

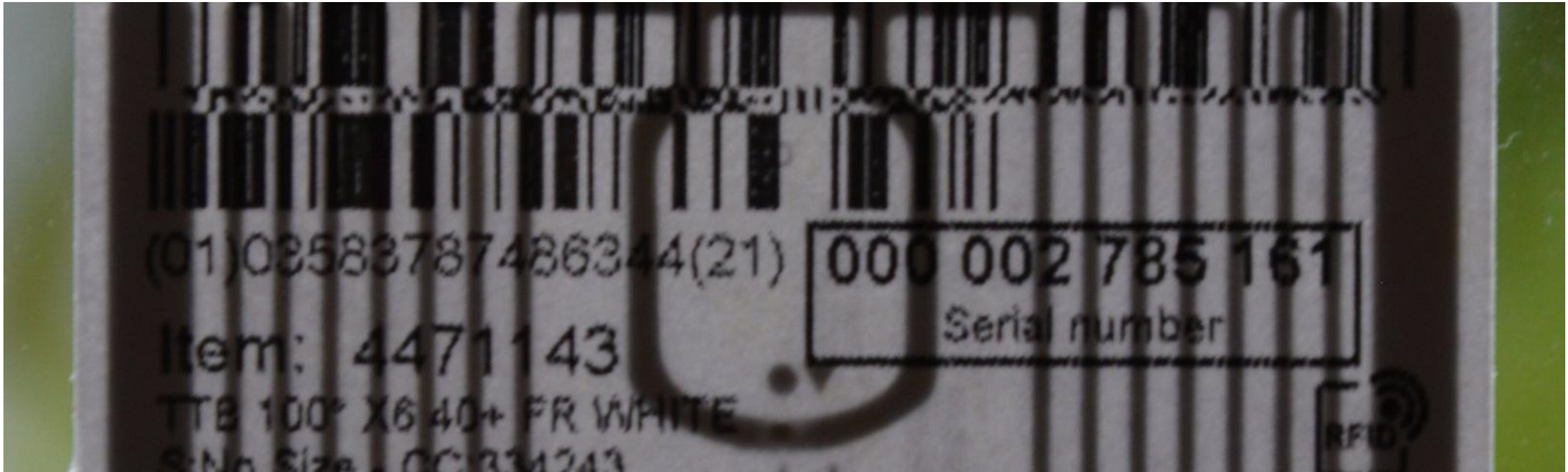
Asset and zone

RETENTION

Agreed period

ACCESS

Scoped and logged



From One Ward to the Whole Estate

Hospital-wide RTLS bought up front is the most common way these projects fail. The sequence below proves the zone model and the tag choice on one ward and one equipment category, where being wrong is cheap.



- 01

Pick One Category, One Ward

Usually infusion pumps or wheelchairs, on the ward that complains most. A narrow scope makes the result unambiguous.
- 02

Survey and Model the Zones

The building is walked and zones are defined in clinical language before any hardware is specified.
- 03

Test Tags on the Real Devices

Tags are trialled on the actual equipment, through the actual cleaning regime, and assessed against the clinical device policy.
- 04

Install and Run Live

Readers are installed for the pilot area and the system runs for an agreed period against the ward's real workload.
- 05

Reconcile the Register

The pilot almost always finds equipment the register did not know about, and register entries with no matching device. That reconciliation is a deliverable in itself.
- 06

Extend by Category and Ward

Coverage grows against the model proven in the pilot, one equipment category and one area at a time.



WHAT EACH SIDE PROVIDES

From the Hospital The current asset register in whatever state it exists, ward access for survey, the clinical device policy, and biomedical engineering's involvement from day one.	From Swedish Technology Survey, zone model, tag and reader selection and testing, installation, integration, training in English and Arabic, and support through the pilot.	Agreed Together Zone resolution, which reports exist, retention, staff consultation, and who owns the register after handover.
--	---	--

PILOT One ward, one category	PROOF Register reconciliation	SUPPORT UAE-based	TRAINING EN · AR
--	---	-----------------------------	----------------------------

Start With the Equipment Staff Search For Most

Tell us which piece of equipment your nurses spend the most time looking for. We will tag that category on one ward, run it live, and show you what the register said against what we actually found.

CONTACT SWEDISH TECHNOLOGY



WHATSAPP / TEL
+971 56 404 6555



EMAIL
info@swedishtechnology.com



WEBSITE
swedishtechnology.com



OFFICES
Abu Dhabi & Dubai, UAE

OUR HEALTHCARE RTLS SERVICES

Hospital Asset Tracking UAE · RTLS Hospital Dubai · Medical Equipment Tracking · Bed & Wheelchair Location · Maintenance & Recall Support · Asset Register Reconciliation