Appendix 1

Functionalities of the Nobi device: Current and the future

Name	Description	Status	Launch date
Dashboard sounds	Until now, the desktop dashboard only provided visual indicators for open monitoring events or escalations. Now, you can also enable sounds on the desktop dashboard, allowing sounds to play for escalations and active monitoring events. However, we have now introduced the option to choose from three different sounds for both escalations and monitoring events. In addition to the visual indication on the dashboard, an accompanying sound can now be enabled. You can activate this feature directly on the dashboard.	Available	Q1-2025
User management	An updated user management allows you to easily create users and assign them to clusters, accounts, sites, and now also departments. The new user management is found by clicking the cog next to your profile. This will show the list of users. The role organisation tab will then allow you to choose the access levels for each user. The structure menu allows for a quick view of the structure of the whole organisation.	Available	Q1-2025
Technical user role	Maintenance staff only need access to specific technical features, without seeing resident information or dashboard data. The Technical Role is designed specifically for maintenance staff, giving them access only to technical alerts, departments, and housing units, ensuring they can install, replace, or reset lights without seeing resident data or other sensitive information.	Available	Q1-2025

Common areas	Common Areas are designed for housing units that are not linked to a specific resident. The purpose of these units is to enable smart features in shared spaces without requiring a direct resident association. It's important to note that large shared spaces, such as dining areas with multiple people, are not (yet) within the scope. Common Areas are intended to monitor one person at a time, making a shared bathroom a great example of a suitable use case. Since no resident is linked to this unit, the most restrictive privacy settings will automatically apply. This includes no live view and no images shown in case of an escalation.	Available	Q1-2025
Auto close escalations	With this feature, once the escalation has been confirmed by pressing '1' on your phone, Nobi will automatically close the escalation if it detects that no one is lying or sitting on the floor during a five-minute period.	Available	Q2-2025
Set snooze time	When closing a fall escalation in the application, you can now select how long fall detection should be snoozed in that room. The default remains 15 minutes, but it's possible to extend this to avoid unnecessary repeat alerts during continued care.	Available	Q2-2025
Calls via Nobi mobile app	With this feature, care staff can respond to falls and panic alerts directly through the Nobi mobile app. It turns any device with the app installed into an immediate response point—no need for phone calls. Care teams stay reachable without relying on their personal devices, or phone calls to one phone at a time. When a fall or panic alert happens, everyone logged in to the Nobi mobile app for the day's shift receives an alert. Residents can be contacted directly through the app, and teams can also set snooze time or log what caused the escalation—easily from the same screen.	Available	Q3-2025

	This feature doesn't replace the existing escalation procedure, rather it works with it to make response times faster and more flexible.		
Escalation procedure reworked	In conjunction with the calls via Nobi mobile app feature comes a reworked Escalations Procedure page which includes the ability to add informative emails, as well as the ability to now create users without a professional email address.	Available	Q3-2025
Resident insights	The Resident Insights page provides a central place where you can view and manage everything related to a resident- from their profiles and privacy settings to their escalations and night reports. Having all this information in one clear place makes it easier to understand a resident's well-being, spot trends, and adjust settings to suit resident needs.	Available	Q3-2025
Nobi pull cord	The Nobi Pull Cord is a self-powered device that lets residents trigger a call by pulling a cord. It connects to the Nobi Light via Bluetooth and works exactly like a call. When pulled, it sends an immediate alert to care staff. The device is kinetic—no batteries or charging needed. Stick it to any wall or surface using the adhesive backing. Some residents can't press a button in an emergency. Pulling a cord is often easier, especially when standing or if a button is out of reach.	Available	Q1-2026

	The Nobi Pull Cord is always ready because it generates its own power. It gives residents a reliable way to call for help—no charging, no setup after installation.		
Nobi Lights gen 2.1 (Ceiling & Pendant)	The new generation 2.1 of the Nobi Lights 2.1 will introduce several important enhancements. The system features passive cooling for silent and reliable operation, increased light output (higher lumen performance), improved two-way audio, and an upgraded camera. An integrated uplight has been reintroduced to enhance overall lighting quality. Installation and serviceability have been optimised with a hardware reset button, a traditional DC power connector, and a three-wire mounting system. In addition, the Nobi Power Unit has been fully redesigned to ensure enhanced performance and stability.	Not available yet	Q1-2026
Nourish integration	Integrations connect external systems such as Nourish to Nobi. They synchronize data or trigger actions like fall alerts through the Nourish nurse call systems. Adding an integration ensures Nobi works seamlessly with Nourish in your care facility. It helps avoid duplicate data entry, improves real-time response, and centralizes communication across platforms	Not available yet	Q1-2026
Assistance calls	Assistance calls let caregivers request extra help by simply pressing a button on their Nobi Badges. Whether during a fall, while supporting a resident, or for non-resident-related tasks, Nobi sends a location-based call to nearby available staff—quietly, instantly, and without disrupting care. On the Nobi dashboard, both on the Nobi Mobile App and the web application, these	Not available yet	Q1-2026

	alerts appear in a separate “Personal & communal calls” row, separating them from fall escalations. At the moment this feature is enabled, the Nobi badges will be launched.		
Operational insights: badge data	The Badge data report delivers a clear, actionable view of in-room care activity by showing how much care is being provided, who is delivering it, and who is receiving it. With this visibility, you can quickly spot trends and hotspots, monitor shifts in care levels, and uncover targeted opportunities for staff training and support	Not available yet	Q1-2026 (Target)
Logging in with badge	Frontline caregivers struggle with traditional email/password sign ins—many don’t have work email, and even when they do, accessing inboxes mid-shift is unrealistic. The outcome is predictable: lower app adoption, inconsistent documentation, and underuse of features meant to keep residents safe. A sign-in method that matches the pace of care while meeting security and compliance needs, is created. With the app open, a caregiver taps their Nobi badge to the phone and is signed in—no email, no password, no codes. Each badge that is already assigned to a specific staff member contains a unique secret key used to securely authenticate.	Not available yet	Q1-2026 (Target)
Blurred images and escalation videos	This feature delivers a balance between residents’ identities are protected while staff can still assess what happened and respond appropriately. Compared to stick figures, blurred media improves incident clarity, supports better clinical judgment, and reduces rework and unnecessary trips to the hospital. Blurred images solve today's stick figure analysis issue due to a static empty background. Compared to “no image,” it keeps residents safer and the organization compliant with privacy standards.	Not available yet	Q1-2026 (Target)

	Blurred Images & Escalation Videos is a privacy-forward default for reviewable media (still images and escalation videos). Live view blurring is out of scope for this phase.		
Management insights: falls / calls	Nobi generates a large volume of data about the community and staff. It is a challenge to recognize meaningful relationships between data sources. Traditional dashboards show isolated metrics but they don't reveal the story behind the numbers. We want to transform data into insights and into positive action that improves the care efficiency and quality of care in our customer communities. Management Insights bridges the gap using dynamic data visualizations to surface patterns, correlations, and anomalies. It empowers users to: See connections between data points that aren't obvious in static reports. Spot opportunities such as training opportunities, trends, and opportunities to better align care with need. Act with confidence knowing that the opportunities are backed with real-life data from their community. In a first phase data of fall escalations and resident calls will be integrated within the Nobi application.	Not available yet	Q1-2026 (Target)
Closing wearable assistance /calls by NFC	Care staff can currently close open escalations (calls and assistance calls) from anywhere in the Nobi app. However, many communities require confirmation at the point of origin. Without a built-in proximity check, compliance is inconsistent and documentation may be less reliable. Therefor Nobi introduces a proximity-based call closure via NFC for both resident wearable resident calls and staff assistance calls.	Not available yet	Q1-2026 (Target)

Access rules closing of escalations	Some regions require staff to be physically present in a resident's room to close certain calls. In addition proper resident check-ins and compliance with internal policies are ensured. Currently, staff members can close escalations remotely, which creates risk: calls may be closed without verifying the resident's condition. Addressing this gap introduces additional requirements, including: - The ability to disable auto-close - Allowing managers to close calls remotely when appropriate A new Escalation Flow section under Settings is created to centralize escalation-related configuration and access rules. This new section will house both existing and new escalation functionality, including the requirement for users to be physically present in the room to close an escalation.	Not available yet	Q1-2026 (Target)
Wearable call button	The wearable call button is a device that lets residents quickly call for help or request assistance by pressing a discreet device warn on their wrist or as a necklace. It integrates directly with the Nobi platform and ensures fast, reliable communication during emergencies. Not every situation requires fall detection—some require a simple, intentional way for residents to ask for help. That's where the Wearable Call Button comes in. With the Wearable Call Button: - The button is paired to the resident and not a housing unit, meaning residents can call for help anywhere within range of the Nobi system. - The button is always within reach—on the wrist or as a pendant worn around the neck. - Staff are alerted through the existing Nobi escalation process as they would be with a fall.	Not available yet	Q2-2026 (Target)

	- The Wearable Call Button complements the Nobi light by adding an active way for residents to call for assistance themselves. - The Wearable Call Button is especially valuable for residents who are still mobile but may feel unsteady or vulnerable. It empowers them to request assistance before a fall happens.		
Actionable monitoring events	Actionable Monitoring Events introduce a configurable system that transforms sensor-detected resident states into structured monitoring events with defined urgency, notification behavior and response workflows.	Not available yet	Q2-2026 (Target)
Gateway for nurse call	The Nobi gateway is able to receive Bluetooth signals and extend coverage in common areas and hallways. This device allows us to extend coverage with only the functionality needed to support receiving Bluetooth signals. These devices will NOT support: - fall detection or other optical-based triggers. - audio inputs (hear the location) or audio outputs (speak within the location). - care mapping data Since these devices have less functionality than a standard Nobi Light, they are a more cost-effective solution for a customer to deploy and we will need to deploy multiple devices in large areas to get full coverage.	Not available yet	Q2-2026 (Target)
User roles	We will evolve the platform toward a more intentional, role-driven experience that applies consistently across customer organizations and Nobi teams. Rather than relying on a small number of broad roles, we will define a clearer framework that reflects common responsibilities in care communities, operator organizations, and Nobi's own service model.	Not available yet	Q3-2026 (Target)

	At a conceptual level, roles will increasingly shape both what people can do and how the product presents itself to them. Frontline staff will be oriented toward real-time awareness and action. Leaders will be oriented toward patterns, configuration, and improvement. Nobi representatives will have roles aligned to installation, implementation, customer success, and support, each with access appropriate to their purpose and stage of the customer lifecycle.		
Nobi lights gent 2.1 (Nobita)	The Nobita 2.1 will introduce several technical enhancements designed to improve light performance, including the ability to provide blurred fall videos for detailed analysis. These videos can help reduce unnecessary ambulance rides and hospitalizations while also delivering valuable insights to strengthen your fall prevention programs.	Not available yet	Q3-2026 (Target)
Single device handling multiple beds	This feature will allow a single Nobi light to handle two single beds in a more precious way. Monitoring events such as in bed, out of bed, sitting on the side of bed... could be configured for both residents.	Not available yet	Q2-2026 (Target)
Power fail safe	This Nobi product runs inline—continuously powering our Bluetooth-listening repeaters over PoE, broadcasting a locked nurse-call Wi-Fi for the Nobi mobile app, and staying in sync with the primary nurse-call platform. The power path uses an integrated battery system with an automatic transfer architecture: when utility power drops, the system is already carrying the load, so there’s no glitch, no reboot, and no staff action required. In the same instant, the network edge enforces an emergency profile and fails WAN traffic over to the pre-provisioned satellite link. From staff’s perspective, nothing changes: a resident presses their wearable call button, the nearest repeater hears the Bluetooth signal, our local micro-core processes the event, and the alert flows to	Not available yet	Q3-2026 (Target)

	the app. If escalation rules are triggered, the system places a call over satellite to the single designated device and records the outcome. When building power and primary network return, the system automatically reverts to normal routing, reconciles any queued events with the main platform, and recharges its batteries in a controlled way—no data loss, no parallel workflows. We continuously monitor health (battery state, link status, and repeater connectivity. We have new monitoring events for the health of the continuity system and alerts when it is active.		
Virtual rounding & dashboard rework	This initiative focuses on delivering role-specific information and streamlined workflows, balancing insight with action. The redesigned dashboard will surface key data and actions tailored to each role. It will also include integrated virtual rounding, enabling staff to check in with residents remotely and document visits in real time, with documentation expected to flow seamlessly into the EMR.	Not available yet	Q4-2026 (Target)

Appendix 2

Search strategies for database searching for the scoping review of fall detection devices

MEDLINE search strategy to search for articles assessing the efficacy of fall detection devices in reducing fall incidences, injuries, ambulance calls, hospitalisations and long lies:

(MH "Artificial Intelligence+") OR (MH "Electronics+") OR (MH "Wearable Electronic Devices+") OR AB ((((((wearable OR electronic* OR detect* OR monitor* OR sensor* OR technolog* OR device*) N3 (fall* OR fall risk)))))) OR TI ((((((wearable OR electronic* OR detect* OR monitor* OR sensor* OR technolog* OR device*) N3 (fall* OR fall risk))))))

AND

(MH "Hospitalization+") OR (MH "Accidental Falls") OR AB (((hospitalisation OR hospitalization OR injur* OR "ambulance* OR "hospital admission" OR "hospital stay" OR "long lie*") N3 (prevent* OR control or reduc*))) OR TI (((hospitalisation OR hospitalization OR injur* OR "ambulance* OR "hospital admission" OR "hospital stay" OR "long lie*") N3 (prevent* OR control or reduc*)))

AND

(MH "Aged+") OR AB ((((older OR elder OR ageing OR geriatr* OR senior*) N3 (person OR adult* OR people OR individual*)))) OR TI ((((older OR elder OR ageing OR geriatr* OR senior*) N3 (person OR adult* OR people OR individual*))))

EMBASE search strategy to search for articles assessing the efficacy of fall detection devices in reducing fall incidences, injuries, ambulance calls, hospitalisations and long lies:

(exp artificial intelligence/) OR (exp electronics/) OR (exp wearable electronic device/) OR ((wearable or electronic* or detect* or monitor* or sensor* or technolog* or device*) adj3 (fall* or fall risk)).ab. or ((wearable or electronic* or detect* or monitor* or sensor* or technolog* or device*) adj3 (fall* or fall risk)) .ti.

AND

(exp hospitalization/) OR (exp falling/) OR ((hospitalisation or hospitalization or injur* or "ambulance* OR hospital admission OR hospital stay OR long lie*) adj3 (prevent* OR control or reduc*))).ab. OR (((hospitalisation OR hospitalization OR injur* OR ambulance*" or "hospital admission" or "hospital stay" or "long lie*") adj3 (prevent* or control or reduc*)).ti.

AND

(exp aged/) OR ((older or elder or ageing or geriatr* or senior*) adj3 (person or adult* or people or individual*)). ab. or ((older or elder or ageing or geriatr* or senior*) adj3 (person or adult* or people or individual*)).ti.

Appendix 3

Characteristics of included primary peer-reviewed research studies in the scoping review of fall detection devices.

Author & Year	Research design	Country in which the study was conducted	Participant characteristics (sample size (n), mean age in years, health conditions, fall history)	Type of fall detection device	Follow-up assessments, intervention time period and dropouts	Outcomes	Results
Visvanathan et al., (2022)	Quasi-experimental study (pragmatic stepped-wedge cluster trial)	Australia	Study settings: hospitalised patients in geriatric and general medicine wards. Delivered across 3 clusters (wards) in 2 hospitals. Intervention group n=1152 Mean age: 84 years Health conditions: Delirium: 27% Dementia: 19% History of falls: 41% Control group n=1962 Mean age: 81.9 years	Wearable fall detection device with sensors on sternum of patients. Nursing staff could select patients' high-risk behaviours for falls (e.g. walking outside the room) and get notified regarding participants engaging in these behaviours in desktop/mobile app.	Follow up assessments and intervention time period: All wards initially spent 25 weeks in the control period, with 1 ward then changing to an intervention ward each subsequent 25 weeks wedge. Ward 1: control time period=25 weeks, intervention time period=75 weeks. Ward 2: control time period=50 weeks, intervention	Rates of falls, injurious falls, proportion of falls and adverse events due to intervention assessed using health systems computerised incident reports, reports of falls by ward team leaders and hand searching of patient medical notes or electronic health records.	There was no significant difference between intervention and control relating to the falls rate (p=0.19), proportion of fallers (p=0.10) and injurious falls rate (p=0.80). adverse events: n=24 Mainly related to the skin (pressure [n = 2], irritation [n = 10], rash [n = 7], redness [n = 7], itchiness [n = 8]) participant discomfort [n = 1], pulling at sensor [n = 4]

			Delirium: 20% Dementia: 16% History of falls: 23%		time period=50 weeks. Ward 3: control time period=75 weeks, Intervention time period=25 weeks Drop-outs: Control period=33 Intervention period=153 (majority occurred because of agitation because of which participants pulled apart the device parts)		
Can et al., (2024)	Pilot study	Istanbul	Study settings: 1 nursing home. Intervention group:	Ambient fall detection device. Sensor placed on walls or ceilings of the living space	Intervention time period: 3 months	Fall rates assessed using the fall detection device for intervention	No significant differences in fall rates between the groups.

			N=13 Mean age:82.7 years Fall history in past year: 8% Control group: N=13 Mean age: 81.9 years Fall history in past year: 6% Prevalence of Dementia: 77%	which produces radar images of the environment. In case of a fall, device emits an audible alert, alerts are sent to caregivers' phones and monitoring centre. Bed exits and other high fall risk behaviours are also detected.	Dropouts: NR	group. Method by which the fall rates for control group was ascertained was not reported.	
Bayen et al., (2017)	Pilot study (pre-post design)	USA	Study settings: a memory care facility N=36 mean age: 79.4 years all participants were diagnosed with dementia (Alzheimer disease and related dementias)	Ambient fall detection device. Wall-mounted cameras were deployed in all common areas and private rooms (not in bathrooms) through which videos of fall events can be seen using mobile app by the staff.	Intervention time and follow-up: 3 months (July-September 2016) compared with falls in the time period of 2 months before intervention delivery (baseline occurrence, May-June 2016)	Fall rates behavioural and environmental factors that could have contributed to the fall occurrences assessed through the fall detection device and reports by facility health board.	The fall rate decreased over the 3-month period from a mean 12 falls per month in the first 2 months to 2 falls during the last month of the study. Fall severity: Moderate Causes of falls:

					Dropouts: 3	Fall severity assessed using Hopkins Falls Grading Scale (Davalos-Bichara et al., 2013)	- 16 falls occurred because of incorrect shift of body weight, gait disturbances, loss of external support, or motor deficit in leg. - extrinsic factors were contributing to the fall in all bedrooms due to placement of furniture and tripping hazards (reduced at the end of intervention as staff used the video footages to move furniture and reduce tripping hazards in rooms. Patients at high risk of falling were checked every hour instead of 2 hours at night). - Behavioural patterns of impulsivity and inattention also contributed to falls

Bayen et al., (2021)	Pilot study (pre-post design)	USA	Study settings: 6 memory care facilities N=66 mean age: 87 years all participants were diagnosed with dementia (Alzheimer disease and related dementias)	Ambient fall detection device. Wall-mounted cameras were deployed in all common areas and private rooms (not in bathrooms) through which videos of fall events can be seen using mobile app by the staff.	Intervention time period: After installation, in a 4-month period, video captures of falls were sent to the staff on a weekly basis, but real time notification was not activated. After that, real time notifications of falls were sent to the staff via phone call. Drop-outs: NR	Number of falls in different areas of the care home (public and private spaces), rates of behavioural falls (participants intentionally lower themselves on the floor), severity of falls, staff response times to attend to falls and long lies assessed using data from the fall detection device. Severity of falls also assessed using Hopkins Falls Grading Scale (Davalos-Bichara et al., 2013)	19.7% falls occurred in common areas, 80.3% in private areas such as personal bedrooms and bathrooms. Majority of the falls occurred between 8pm to 8 am (night-time). Rate of behavioural falls: 34.2% Fall severity: Near falls with independent recovery: 6.6% Minor falls: 51.1% Moderate and severe falls: 8.1% Response times (p=0.04) and time on ground (P=.043) differed significantly between the baseline period and intervention

							period with a mean reduction in time on ground of 28.3 minutes. No long lies >1 hour in intervention period.
Zimmerman et al., (2024)	Randomised crossover trial	USA	Study settings: 5 assisted living facilities N=38 mean age: 85 years 18% required assistance with transferring, and 26% with locomotion/ambulation	Ambient fall detection device. Infrared motion-sensor camera mounted on the wall recorded falls between 7pm to 7am. Intervention: LED lights were also installed and programmed to light up from 7pm to 7 am across the top of the bathroom/entry doorframe to enable participants to see in the dark properly Control: 2 standard LED lights provided, 1 in bedroom and 1 in bathroom.	Intervention time and follow-up: 9 months Drop-outs: 8 n=3 due to death n=5 due to discharge	Fall rates assessed using the fall detection device	Falls were 34% lower in the intervention condition than the control condition which did not reach significant (p=0.18)

Gervasi et al., (2025)	Retrospective study	Italy	Study settings: hospitalised patients from 1 hospital Intervention group: N=228 Mean age: 76.9 years Control group: N=352 Mean age:75.8 years a higher proportion of cases in the intervention group had cardiac abnormalities. Fall risk assessed using Stratify scale and Barthel Index and intervention provided to individuals with higher risk of falls	Ambient fall detection device. Cameras are installed in inpatient rooms to detect falls. Images are analysed to have information about body position, movements, and precarious conditions while maintaining the anonymity. AI algorithms analyse images to identify risky situations and falls and notifications are sent to caregivers' phones.	Intervention time and follow-up: 3 months Drop-outs: NR	Fall rates assessed using the fall detection device for intervention group. Method by which the fall rates for control group was ascertained was not reported.	A statistically significant reduction of the accidental falls was found in the monitored group compared to the unmonitored group (control group, $p<0.001$)
Zoellick et al., (2025)	Quasi experimental trial with matched	Germany	Study settings: community Intervention:	Wearable+ambient fall detection device. Necklace with an accelerometer and	Intervention time and follow-up: 12 months.	Number of emergency contacts and hospitalisations	Similar rates of emergency contacts ($p=0.523$) and hospitalisations;

	historical controls		N=180 participants Mean age: 81.7 years Control: N= 708 matched controls Mean age: 81.4 years	an emergency button pendant that automatically registered falls and consequently sent an emergency call. Eight motion sensors placed at central locations within the living space (e.g. bedroom, fridge). Participants were also registered with a social service provider offering support in activities of daily living like grocery shopping. Social service monitored participants and attended to them in case of falls.	Drop-outs: intervention group: 33 (due to death, relocating, or other reasons) Control group: 16 (missing data on certain variables)	within the duration of the intervention obtained via claims data of health insurance. Participants were asked to recall the number of falls they experienced in the last 12 months.	(p=0.122) with similar durations (p=0.260) and similar healthcare costs (p=.774) between intervention and matched control groups. The number of falls did not differ significantly from baseline in both intervention group (p=0.91).
Xiong et al., (2021)	Pilot study	USA	Study settings: 6 residential care facilities	Ambient fall detection device. Artificial intelligence—	Intervention time and follow up: 2 months.	Fall rates were ascertained by using the fall detection device	Significant reduction in falls requiring emergency medical teams' visits (p=0.001)

			Total N (control+ intervention groups) =55 Mean age: NR	enabled cameras to detect falls, videotape falls, and notify care staff	Drop-outs: NR	for the intervention group and routine records of fall incidents of all residents that are prepared by the staff. Rates of emergency medical teams' visits and emergency department visits ascertained for both groups using routine records prepared by staff.	and emergency department visits (p=0.003) in intervention compared to control group.
White (2018)	Retrospective study	USA	Study settings: 2 homogenous long-term care facilities N=160 in both the facilities Mean age: NR	Use of bed alarms assessed retrospectively	Assessment period: 5 months of retrospective Data. Drop-outs: NR	Number of injurious falls ascertained using electronic databases, patient charts and logged incident reports (which included fall and adverse events records).	The number of injurious falls were significantly higher in the facility that used the alarms compared to ones that did not.

Dollard et al., (2022)	Quasi-experimental study (pragmatic stepped-wedge cluster trial) Mixed-methods analysis of acceptability of the device of a select group of participants	Australia	Study settings: hospitalised patients in geriatric and general medicine wards of a hospital. N=88 Survey: N= 61 Interviews: N= 27 Mean age: 83 years Diagnosis of dementia: 8%	Wearable fall detection device with sensors on sternum of patients. Nursing staff could select patients' high-risk behaviours for falls (e.g. walking outside the room) and get notified regarding participants engaging in these behaviours in desktop/mobile app.	Follow up assessments and intervention time period: Ward 1: control time period=25 weeks, intervention time period=75 weeks. Ward 2: control time period=50 weeks, intervention time period=50 weeks. Ward 3: control time period=75 weeks, Intervention time period=25 weeks Drop-outs: N/A as assessments of acceptability	Acceptability and perceived usefulness of the device in preventing falls using a pre-intervention and a post-intervention survey and semi-structured interviews.	The themes "preventing Falls Using the AmbIGeM System Was Appropriate and Valuable" and "Enhanced Patient Safety (Safety)" showed that the participants viewed the device as potentially useful to prevent falls and improve safety of older adults as participants believed that nurses would be able to quickly attend to them if needed and prevent falls. Participants and their families thought that the system was potentially a useful backup system when participants were unable or forgot to press the call bell. Survey results showed high level of acceptability, comfort with using the device

					conducted across single time points.		and perceived benefits for people at risk of falls.
Votruba et al., (2016)	Quasi-experimental study	Not reported	Study settings: hospitalised patients from 1 particular hospital Intervention: N= 828 Control n=4213 Participants who were at high risk of falls were provided the intervention. Fall risk was determined using history of falls and presence of confusion and impulsivity. Mean age: NR	Ambient fall detection device. Non-recording cameras were mounted in the ceilings of all inpatient rooms of three inpatient units to detect falls. Infrared lighting was installed for better night vision, as well as speakers and microphones to allow for two-way communications between the patient and a tele-sitter (available 24/7 to the patients) who attended to patients and communicated with them in case	Intervention and follow-up assessments: 9 months. Drop-outs: Not reported.	Fall rates assessed using the fall detection device for intervention group. Method by which the fall rates for control group was ascertained was not reported. Method of assessing fall rates during the baseline time period was also not reported. Reduction in intensive one-on-one monitoring of participants were assessed to ascertain cost-	The number of falls decreased significantly from 85 to 53 ($p< 0.0001$) from baseline to end of the intervention. This represented a 35% decrease in falls. One on one intensive monitoring decreased by 10% from an average of 1,930 hours per month to an average of 1,735 hours per month during the study period. Cost savings due to fall prevention: Based on a fall with injury

				they were engaging in high-risk behaviours and informed the nurses in case of a fall.		effectiveness analysis.	estimate of 9%-15% (Tideiksaar, 2010), there would be three to five falls with injuries avoided. Using the CDC's (2013) estimate of $17,500 per fall, implementing intervention will avoid between $52,000 and $87,500 in fall costs each year. Authors anticipated a decrease of $25,200 in personnel costs each year for one-on-one monitoring. This would lead to savings of $77,200 to $112,700 each year. However, the estimated costs of employing a telesitter to monitor patients 24/7 would be $120,000.
Comini et al., (2024)	Feasibility study	Italy	Study settings: Hospitalised patients of a neurorehabilitation Unit.	Wearable fall detection device. The hip protector belt was adjusted at the waist of individuals. In the event of a fall being	Intervention time period: 8 months Drop-outs: 8 (patients refused to	Fall rates assessed using the fall detection device for intervention group. Method by which the fall	No reduction in hip injuries and falls due to low acceptability and inconsistent use of the device among the participants.

			Intervention N=17 Mean age=NR	detected, the airbag inflates on the left or right hip, depending on the direction of the fall, thus providing optimal protection before the impact on the ground occurs. Patients were invited to wear the belt for two weeks starting 6th day of hospitalisation.	wear it after 24 h, due to discomfort)	rates for control group was ascertained was not reported.	
Stefanacci et al., (2025)	Quasi experimental trial with propensity-matched historical controls	USA	Study settings: 11 residential senior care settings. Intervention N=134 Mean age=87.3 years Diagnosis of osteoporosis: 39.5% Control N=264 Mean age=87.5 years	Wearable fall detection device. Sensor technology with airbag deployment to provide targeted protection during falls that pose a high risk for hip injury. The fall detection system is specifically calibrated to identify falls with trajectories and velocities associated with high risk	Intervention time period and follow up assessments: 6 months. Follow-up assessments at 3 and 6 months. Drop-outs: intervention group: 55 (primarily due to behaviours of resistance (n = 19) withdrawal of consent (n = 18) decreased mobility level to dependent	Proportion of participants experiencing major hip injuries, fall-related emergency department visits and fall-related hospitalisations were documented in by facility staff using standardized forms. A blinded outcome assessor (geriatrician with expertise in fall-	The intervention group experienced significantly fewer major hip injuries from serious hip-impacting falls (P < .004], fall-related hip fractures (P = .003), emergency department visits (P ≤ .001), and hospitalizations (P =.003) compared with controls. Overall fall rates did not differ significantly between intervention and control groups (1.56 vs 1.31 falls per 180

			Diagnosis of osteoporosis: 41.2%	for injurious hip impact. Airbag creates a protective cushion around the hip area before ground impact occurs.	for ambulation and transfers (n = 6), and device discomfort (n = 2) Control group: 17 (incomplete data)	related injuries) also verified the assessment of the outcomes using radiographic evidence and clinical documentation.	days, respectively; P = .075). adverse events: discomfort with wearing the device (7 events) that resolved by adjusting the fit of the belt and discomfort described as transient anxiety that is temporarily experienced from the deployment of the airbag (6 events). These were classed as mild adverse events that were temporary in duration.
Salahub et al., (2025)	Retrospective study	Canada	Study settings: recipients of care at home Intervention: N=1494 Mean age: 80.8 years	Wearable fall detection device. The personal alert device could be worn in a pendant configuration around the neck, around the wrist, or on a belt clip. Personal support workers at a	Intervention time period: 6 months. Dropouts: NR	The Toronto Grace Health Centre provided data derived from program databases used to manage patient referrals and device alerts. This included	Those in the intervention group spent 3.4 more days at home than the control group. The intervention group had lower health care costs overall (difference of $1635.54 CAD)

			Control N=1494 Mean age: 80.5 years	Health Centre monitored the device alerts in real time and provided support to the participants by calling caregivers or emergency services in case of a fall. 170 patients also received a home medication dispenser.		information about total days at home over the 100 days following the index date, hospitalisation days and healthcare costs in next 6 months of the start of the intervention.	
Pham et al., (2023)	Quasi-experimental study (pragmatic stepped-wedge cluster trial)	Australia	Study settings: hospitalised patients in geriatric and general medicine wards of a hospital. Intervention: N=997 Mean age: 85.3 years Diagnosis of delirium or dementia: 37.2%	Wearable fall detection device with sensors on sternum of patients. Nursing staff could select patients' high-risk behaviours for falls (e.g. walking outside the room) and get notified regarding participants engaging in these	Follow up assessments and intervention time period: Ward 1: control time period=25 weeks, intervention time period=75 weeks. Ward 2: control time period=50 weeks, intervention	Rates of falls, injurious falls, proportion of falls and adverse events due to intervention assessed using health systems computerised incident reports, reports of falls by ward team leaders and hand searching of patient medical	An adjusted 0.036 fewer injurious falls (adjusted rate ratio of 0.56) and AUD$4554 lower costs were seen in the intervention group. However, uncertainty that the intervention is cost effective for the prevention of an injurious fall was present at all monetary

			Previous hospitalisations with falls or fractures: 44.5% Control N= 663 Mean age: 85.8 years Diagnosis of delirium or dementia: 32.3% Previous hospitalisations with falls or fractures: 36.3%	behaviours in desktop/mobile app.	time period=50 weeks. Ward 3: control time period=75 weeks, Intervention time period=25 weeks Dropouts: 7 (data required for cost effectiveness analysis was not available)	notes or electronic health records. Intervention costs (infrastructure and ongoing technical support) and costs of hospital admissions were obtained from finance departments of the hospitals.	values of this effectiveness outcome.
Tarbert et al., (2023)	Case study	Not reported	Study settings: a long-term care facility N=35 with 6 participants who experienced a fall. The data of the 6 participants were analysed as case studies. Mean age: 86.8 years 2 residents of memory care unit and 1 with	Wearable fall detection device. Sensor technology with airbag deployment to provide targeted protection during falls that pose a high risk for hip injury. Airbag creates a protective cushion around the hip area before ground	Intervention time period: 23 months. Drop-outs: NR	Fall rates assessed using the fall detection device	6 total falls with smartbelt airbag deployments occurred with no associated hip injuries, emergency department visits or hospitalizations.

			Parkinsons disease, frequent falls who was on hospice care	impact occurs. Also includes an application that allows the connection of the device to WiFi to view usage metrics including compliance and daily wear hours. The detection of falls triggers alerting to designated care team members.			
Federici & Pecchia (2021)	Case study	UK	Participants not recruited as it was a cost-effectiveness analysis of data obtained from another study (Sannino et al., 2015)	Wearable fall detection device. innovative wearable device under development that uses electrocardiogram (ECG) and short-term heart rate variability (HRV) to predict sudden drops in blood pressures (BP) due to Orthostatic hypotension. The device is intended to warn individuals and	N/A as no participants were recruited	Cost effectiveness analysis using data from a previous study (Sannino et al., 2015)	The device produced estimated gains of 0.035 QALYs per patient and incremental costs of £ 518 (incremental cost-effectiveness ratio £14,719)

				caregivers about an imminent risk of falling.			

Characteristics of included reviews

Author & Year	Type of review	Participants	Intervention types	Number of studies included and research designs of studies included	Quality of studies included	Outcomes	Results
Yeoh Lui et al., (2025)	Systematic review and meta-analysis	Settings: long-term residential settings (eg, in homes, assisted living facilities, nursing homes, retirement villages) Age of participants: ≥60 years of age	Eleven studies used nonwearable technologies, whereas 2 studies used wearable fall detection devices	13 included studies. Seven studies were randomized controlled trials and 6 were quasi-experimental studies.	Assessed using Joanna Briggs Institute critical appraisal checklists. low quality: 2 moderate: 5 high quality: 6	Fall incidences and fall-related hospitalisations	Fall rates: There was significant reduction in fall incidence by 28% in the intervention groups with a small to moderate pooled effect (P = .01). For the studies not included in the meta-analysis (n=3), only one study found significant reduction in falls in intervention group compared to control. Patel and Gunnarsson

							(2012) reported significantly fewer weekly average falls in the intervention group (P = .0001). Hospitalisations: Overall results were inconclusive as 3 out of 4 studies reported general hospitalisation data not related to falls. Only 1 out of 4 studies found a reduction in fall-related hospitalisations. Tchalla et al identified a significant decrease in hospitalization risk due to falls, with the intervention group having 0.3 times the odds of being hospitalized compared with the control group (P = .0091).
Cortés et al., (2021)	Systematic review and	Settings: included studies in which participants were hospitalized adults	Wearable sensor devices and sensor-based	4 included randomised control trials.	According to Cochrane collaboration tool	Fall rates	Fall rates were higher in the intervention group compared to control group. A total of 351

	meta-analysis	in any service of care, diagnosed with any medical or surgical condition.	technology attached to beds or chairs		and Jadad scale tool. All studies were low risk of bias.		(3%) patients fell among 11,817 patients assigned to the intervention group, compared with 429 (2.4%) patients who fell among 17,972 patients assigned to the control group (P=.02).
Lee et al., (2025)	Systematic review	Settings: older adults in hospitals or Long-Term Care Facilities Age of participants: ≥60 years of age	Combination of all types of fall detection devices including wearable, ambient (e.g. camera, radar etc) or multimodal sensors. Other types of fall detection & prevention technologies like electronic health records also assessed. 12 studies assessed efficacy of fall detection	5 were RCTs, seven were quasi-experimental studies, 20 were observational studies, and 1 was a mixed-methods study.	Assessed using the Cochrane Risk of Bias 2 (RoB 2.0) tool, the Mixed Methods Appraisal Tool, the Quality Assessment of Diagnostic Accuracy Studies 2 tool and the Prediction model Risk of Bias Assessment Tool (PROBAST). Majority of the included studies were rated as moderate to high risk of bias.	Rates of falls and injurious falls.	Inconsistent results regarding efficacy of the devices in reducing falls and injurious falls. Most studies reported no significant differences in fall rates and rates of injurious falls in intervention groups compared to controls. Frequent false alarms contribute to alarm fatigue.

			devices in reducing falls and injuries.				
Teh et al., (2015)	Narrative review	Settings: studies undertaken in residential care, hospital or community settings. Age of participants: ≥60 years of age	All types of digital interventions to detect and prevent falls including wearable, ambient fall detection (camera, radar etc) devices and electronic health records.	3 RCTs, 5 cohort studies, 1 prospective follow study, 1 cross-sectional survey and 1 qualitative study using focus groups and 10 systematic reviews. 3 systematic reviews and 4 primary studies evaluated sensor-based fall technology devices. One primary study only evaluated webcam-based intervention to reduce falls.	Assessed using modified versions of the Joanna Briggs Institute (JBI), QARI Critical Appraisal Checklist and QUADAS checklist, and the JBI Critical Appraisal Checklist for Systematic Reviews. Most studies regarding sensor technology were of low quality because of poor reporting of methods and low sample sizes. Problems with reporting of methodology including dropouts of the studies	Fall rates	4 primary studies evaluated sensor-based fall detection technologies and 1 assessed a video camera to monitor falls. Three of the seven systematic reviews evaluated sensor technology alone. Most studies regarding sensor technology were of low quality and did not find reduced falls rates or number of falls-related injuries. Video camera surveillance effectively reduced falls rates and was well accepted by nursing staff. However, patients had concerns for their privacy.

					evaluating camera-based interventions also.		Systematic reviews which discussed sensor technologies found that there was no evidence that they reduced falls and the included studies were of poor quality.
Cameron et al., (2018)	Systematic review	Settings: care facilities or hospitals. Age of participants: majority of participants were over 65 years, or the mean age was over 65 years.	Any intervention designed to reduce falls in older people compared with any other intervention, usual care or placebo (not limited to fall detection devices)	95 total studies included. 2 evaluated bed and chair sensor alarms in hospitals and were both RCTs	Assessed using Cochrane risk of bias assessment. Evidence rated as very low quality.	Fall rates	2 studies assessed efficacy of fall detection devices (bed and chair sensor alarms in hospitals) which were not found to be effective in reducing rate of falls or risk of falling. The quality of evidence was rated as very low due to poor reporting of studies including adverse events.
Schoberer et al., (2022)	Systematic review	Settings: hospitals, nursing homes, care home, or rehabilitation facility for older adults Age of participants: At	Any intervention designed to reduce falls in older people compared with any other intervention, usual care or placebo (not limited to fall	19 SR of RCTs, 15 current RCTs (not included in the SR of RCTs), 8 SR of observational studies, 4 current observational studies, 3 SR	Systematic Reviews were appraised using the Critical Appraisal Worksheet for Systematic Reviews. RCTs using the Critical Appraisal Worksheet for Therapy Studies	Fall rates and rates of injurious falls	Alarm and sensor devices were investigated in two RCTs, but outcomes showed no significant effect on falls. The overall rating of the evidence is very low.

		least half of whom were ≥65 years of age	detection devices)	of diagnostic accuracy studies, and 2 current diagnostic accuracy studies. Alarm and sensor devices were assessed in 2 RCTs and hip protectors were assessed in 12 RCTs.	(Centre for Evidence-Based Medicine, 2005) and the observational studies using the Critical Appraisal Skills Program checklists. Multidisciplinary panel also rated the confidence in estimates of effects using Grading of Recommendations Assessment Development and Evaluation. Evidence rated as low for both hip protectors and alarm and sensor devices.		The use of hip protectors was investigated in 12 RCTs. Hip protectors were not shown to decrease the rate of falls but decreased the rate of hip fractures.
Singh & Bhinde (2025)	Narrative review	Settings: NR, however, patients had to be diagnosed with Alzheimer's	Only wearable sensor fall detection technologies	25 included studies including RCTs, observational	Randomized trials assessed using a version of the Cochrane Risk of Bias tool and non-	Fall rates	The results regarding the efficacy in reducing falls was inconsistent. The risk for a bias for most

		disease or Alzheimer's dementia or mild cognitive impairment. Age of participants: aged ≥ 60 years		studies, reviews, feasibility and pilot trials etc.	randomized studies assessed using the ROBINS-I tool and systematic reviews assessed using the AMSTAR-2 checklist. Majority of studies had moderate to high risk of bias.		studies was assessed to be moderate to high.

Characteristics of grey literature reports

Author & Year	Country in which the study was conducted	Type of fall detection device	Methodological details (study design, participant characteristics, study settings, data collection procedures, outcomes, intervention time period)	Results
Nobi, (2024)	United Kingdom	Ambient fall detection device in the form of Nobi lamps mounted on ceilings of care homes. Provides abstract, anonymised images of 15 seconds before and after a fall.	British care home Hartland House in Milnthorpe (Cumbria, UK) fitted 8 Nobi-lights for fall prevention and detection. This was part of a pilot project by the NHS Integrated Care Board (ICB)	Caretakers were able to provide help after a fall 28 times faster after the device was installed

		When fall occurs, staff is notified in a mobile app within 30 seconds. A central dashboard offers care personnel an overview of all rooms. When a resident sits upright in bed at night, Nobi shines a soft light upwards to illuminate the room gently. Then, if the person stands to go to the bathroom, for example, the smart light will illuminate the entire room. Device also alerts staff when residents are engaging in high-risk behaviours such as sitting on edge of bed or leaving the room. Sleep reports are also generated to enable staff to understand sleep patterns of residents.	of Lancashire & South-Cumbria. Assessed staff response times, fall rates, cost effectiveness.	(average response time of 2 minutes). 4 in 5 falls were prevented. Cost-savings: 1.381 falls prevented every day. 8.28 hours reduced every day, and reduction of 621 ambulance calls translates to £156.585. Reduced ambulance callout costs every day. £410.484.800 reduced care costs every year.
Irving, (2025)	United Kingdom	Ambient fall detection device (Nobi lamps) in the form of lamps mounted on ceilings of care homes. Provides abstract, anonymised images of 15 seconds before and after a fall. When fall occurs, staff is notified in a mobile app within 30 seconds. A central dashboard offers care	87 rooms across seven care homes, including one assisted living setting, were equipped with the device (Nobi Smart Lamps). Intervention design: pre-post Intervention time period: pre-implementation: 6 months.	Main themes and sub-themes: Themes: 1. Faster response & improved safety: Staff respond more quickly to unwitnessed falls, reduced long lies, paramedics able to make quicker decisions due to footage.

		personnel an overview of all rooms. When a resident sits upright in bed at night, Nobi shines a soft light upwards to illuminate the room gently. Then, if the person stands to go to the bathroom, for example, the smart light will illuminate the entire room. Device also alerts staff when residents are engaging in high-risk behaviours such as sitting on edge of bed or leaving the room. Sleep reports are also generated to enable staff to understand sleep patterns of residents.	Post-implementation: 8 months. A mixed methods approach using quantitative data was used to collect and analyse data. Quantitative data: Device generated data including alerts, intervention times, and response times across participating providers. Post Go Live Surveys included monthly self-reported data from care home managers on falls, hospital admissions, and ambulance callouts. Data on hospital visits, falls and ambulance callouts prior to installation of smart lamps using baseline benefits questionnaire was assessed. Quantitative data analysed using descriptive analysis. Qualitative data: Observations and staff interviews carried out during provider visits. Feedback from managers, carers and family members on experience, safety, and reassurance. Analysis of qualitative data done using thematic analysis	2. Better fall analysis & clinical insight: Clearer understanding of what happened before/during/after a fall, ability to differentiate true falls from residents lowering themselves, full video capture helps validate events, sleep reports used to identify possible health issues. 3. Reduced unnecessary escalations: Fewer unnecessary hospital trips because evidence regarding falls. supports decisions. 4. Business & operational benefits: Technology contributes to home reputation and business development, Reduced ambulance use equals system-level savings. There was an increase in recorded falls in some care homes which was attributed to improved detection of falls. Across all sites, there was a substantial reduction in hospital visits (up to 75%), hospital admissions (up to 100%) in some homes, and ambulance callouts (up to 65%).

				Cost-effectiveness: The project delivered an estimated £89,000 in avoided emergency care costs over six months, with a projected return on investment of 196% over three years.
Gavriilidis, (2025)	United Kingdom	Ambient fall detection device called the Ally acoustic monitoring technology that uses sensors to detect sound and motion. It alerts staff via handheld devices about falls.	The device was implemented in 6 care homes across Southwest England, UK for 6-8 months. A questionnaire with both open and close-ended questions was administered to assess the impact of the device on residents' safety and care provision. Open-ended questions also assessed the ease of use, reliability and any challenges and benefits of using the technology. A pre-post analysis of the following outcomes was assessed: - Total falls - Unwitnessed bedroom falls - Ambulance call-outs - Hospital transfers - Hospital days - Safeguarding notices These outcomes in the 6-8 months in which the device was installed was compared with baseline scores which included these outcomes in the previous	- Total falls reduced by 49.2% - Unwitnessed bedroom falls reduced by 58.2% - Ambulance call-outs reduced by 63.7% - Hospital transfers reduced by 79.3% - Hospitalisation days reduced by 72.6% - Safeguarding notices reduced by 51.9% Qualitative insights: Two themes: (1) Tangible benefits for detection and tailored response at night (2) Context-specific constraints (layout, resident routines, care model) and a need for longer evaluation.

			12 months before the installation of the device.	
Health Innovation Network, (2025)	United Kingdom	Round table discussion of stakeholders regarding all types of fall detection and prevention devices being piloted in care homes across the UK.	Representatives from social care (care providers/care homes), Integrated Care Boards, and local authorities were invited to share learning and discuss implementation experiences of fall detection and prevention technologies in care homes. A round table discussion explored questions focused on the perceived benefits of adopting fall detection technologies, the opportunities going forward, and potential future funding sources and business models.	Attendees felt that these tools are effective in detecting falls and preventing future falls by helping staff to understand residents' behaviour patterns, which then enables them to support changes to care home residents' environments and Behaviours (anecdotal data: One care provider reported that in the 20 months since implementation there had been zero night-time falls from amongst their residents). Providers also mentioned that these technologies reduce ambulance calls and hospitalisations. Some providers reported that the technologies allow them to reduce to avoid the need for intrusive night-time checks of residents by staff, with the result of improving sleep quality for residents, increasing their attentiveness during the day and reducing the likelihood of falls related to fatigue or disorientation.

National institute for Health and Care Excellence (2025)	N/A	All types of interventions to detect and prevent falls among older adults including fall detection devices.	Guidelines on fall assessment and prevention of adults above the age of 50 years.	There was limited evidence of assistive devices (including fall detection devices in reducing falls, so further research on this area is recommended.

Appendix 4: ICB Commitment form

NHS
Lancashire and South Cumbria
Integrated Care Board

SENSOR BASED FALLS TECHNOLOGY NOBI SMART LAMP PROGRAMME COMMITMENT FORM

This form will provide the us with important information regarding your care/ nursing home in order to ensure we have successful installation of the Nobi Smart lamps and to demonstrate your commitment to us on this programme.

There are two companies that you will hear us talk about. 1. **Nobi** produce and manufacture the Smart Lamps, provide training and support to care providers and have commissioned 2. **Porters Care** to conduct the site surveys and installation of the Nobi lamps in England.

At the bottom of the form you will see the stages of the programme from interest to implementation. Your contact details will be forwarded to Nobi and Porters Care to make arrangements with you directly for each stage of the programme.

Please complete this form to the best of your ability and if you have any questions or concerns please contact Mazz 07563 963392 or Nat on 07525 132991.
ResudWe look forward to receiving this from you and working in partnership on this unique falls prevention and detection programme!

About you?

1

Care/ Nursing Home Name *

2

Care/ Nursing Home Address *

3

Name and Contact Details of Care/ Nursing Home *

4

Name of main contact *

Information about your care/nursing home....

5

How many beds do you have? *

6

Do you accept Discharge to Assess (D2A) placements? *

- ◯ No
- ◯ Yes

7

Total number of all falls in last 3 months? *

8

Where do resident falls occur predominantly? *

Please select at most 3 options.

- ☐ Bedroom
- ☐ Bedroom ensuite
- ☐ Communal Bathrooms
- ☐ Communal Areas
- ☐ Outdoors

9

Does your care/ nursing home have any double rooms? *

- ◯ Yes
- ◯ No

10

If yes, how may double rooms do you have? *

11

Of these double rooms, are any of these residents deemed high risk of falls? *

- ◯ Yes
- ◯ No

12

Do you have good signal WiFi signal in all of your bedrooms? (if no, please elaborate areas of concern such as black spots) *

13

What is your upload speed? (use this link if you are unsure <https://fast.com/en/gb/#> Recommended speed -67dB)

14

What is your download speed? (use this link if you are unsure <https://fast.com/en/gb/#>)

15

Do you have a sim enabled smart phone/ tablet device that the Nobi app can be downloaded on to and that will be on care staff's person at all times to receive Nobi staff alerts? *

- ◯ Yes
- ◯ No

16

If no, can the care/ nursing home arrange for at least one work device (sim enabled smart phone/ tablet) to be made available for Nobi staff alerts? *

- ◯ Yes
- ◯ No

17

Does your care/ nursing home have access to a training room for up to 20 people? *

- ◯ Yes
- ◯ No

18

If yes, could this room be used for your Nobi training sessions? *

- ◯ Yes
- ◯ No

19

What is your Lancashire County Council (LCC) Supplier number?
The supplier number is required for us to transfer the grant to you to pay the supplier for the smart lamps
If you have never received payments from LCC let us know and we will send you application form for supplier number to be set up

20

Company Name linked to your LCC Supplier number? *

21

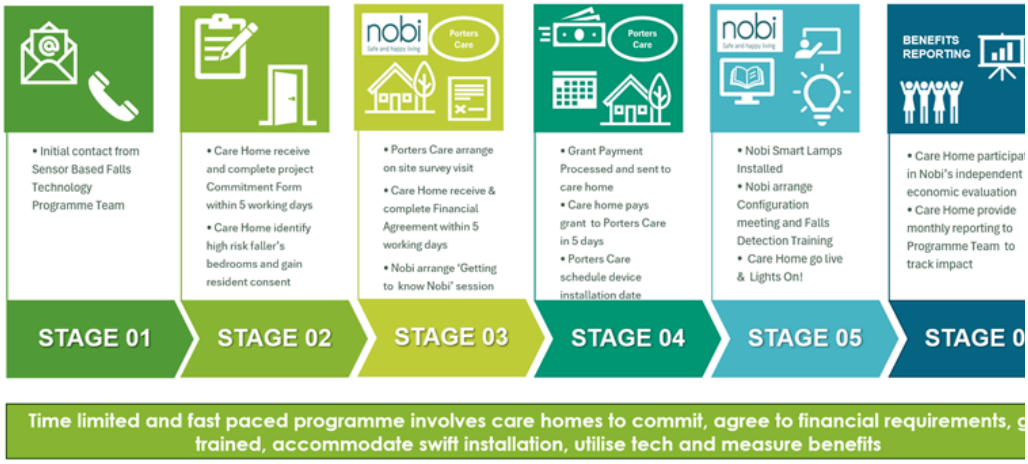
Do you have a Digital Social Care Record (DSCR) *

- ◯ Yes
- ◯ No

22

What DSCR supplier are you using? *

This section gives you an overview of the proposed timeline for your care/ nursing home



Acknowledgement of Commitment to the Nobi Smart Lamp Programme

This is a high cost investment into your home. In order for us to be confident that the grants are allocated to committed and engaging providers we require you to agree with the statement below.
Thank you.

23

The initiative includes provision of the following, Nobi Smart Lamps; 3 years license costs; full installations; comprehensive training and ongoing supplier support. Following the 3 year funded period, care/ nursing homes will have the option to continue license costs by paying a monthly subscription to Nobi of £10.00 per resident per month excl VAT. This will be discussed further with you by Porters Care, the distributer of Nobi Smart Lamps.
Full training will be provided by the supplier which can be disseminated widely to your team.

You will;

- Participate in the Nobi Smart Lamps initiative by agreeing to have Nobi Smart Lamp technology installed for a 3 year fully funded period using cutting-edge AI technology to help prevent falls in your care home.

- You must be on the journey to approaching standards or above for DSPT - <www.dsptoolkit.nhs.uk/Help> . You can check your ODS code and what your current status is here <www.dsptoolkit.nhs.uk/OrganisationSearch> and our partners at the Liverpool Social Care Partnership <www.lscpinfo.co.uk/DSPT> can help you get published to the right standard. (If we notice you haven't published to this standard, we will refer you to the LSCP for their support.)

- Receive the full funding directly to yourselves through a route provided by Lancashire County Council which you will then be paid directly to the supplier Porters Care.

- Obtain written consent from residents where Nobi is being installed. (Nobi will send you the 'Consent Form' to complete during installation.)

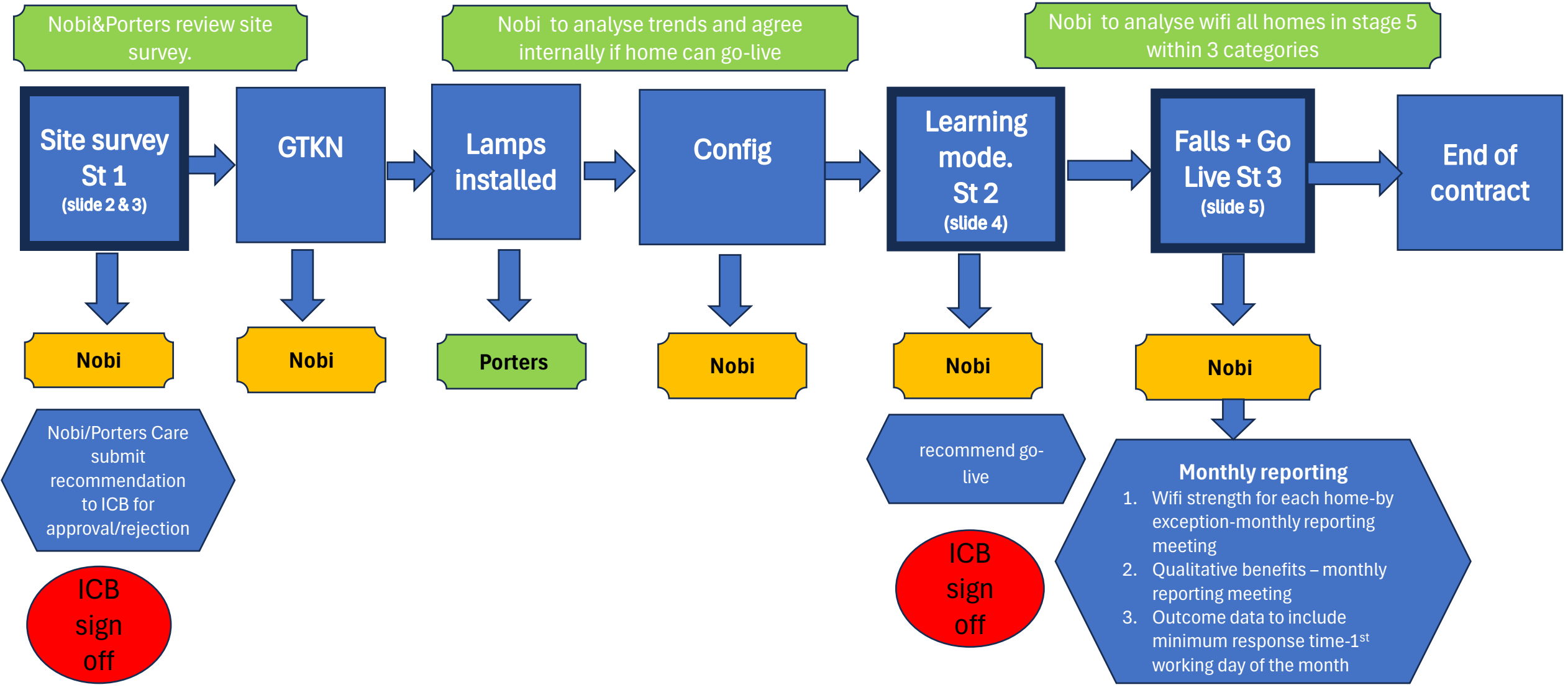
- Ensure Nobi Smart Lamps installations are completed.

- Participate in an independent economic evaluation to illustrate the impact of this technology in reducing and preventing falls.

*

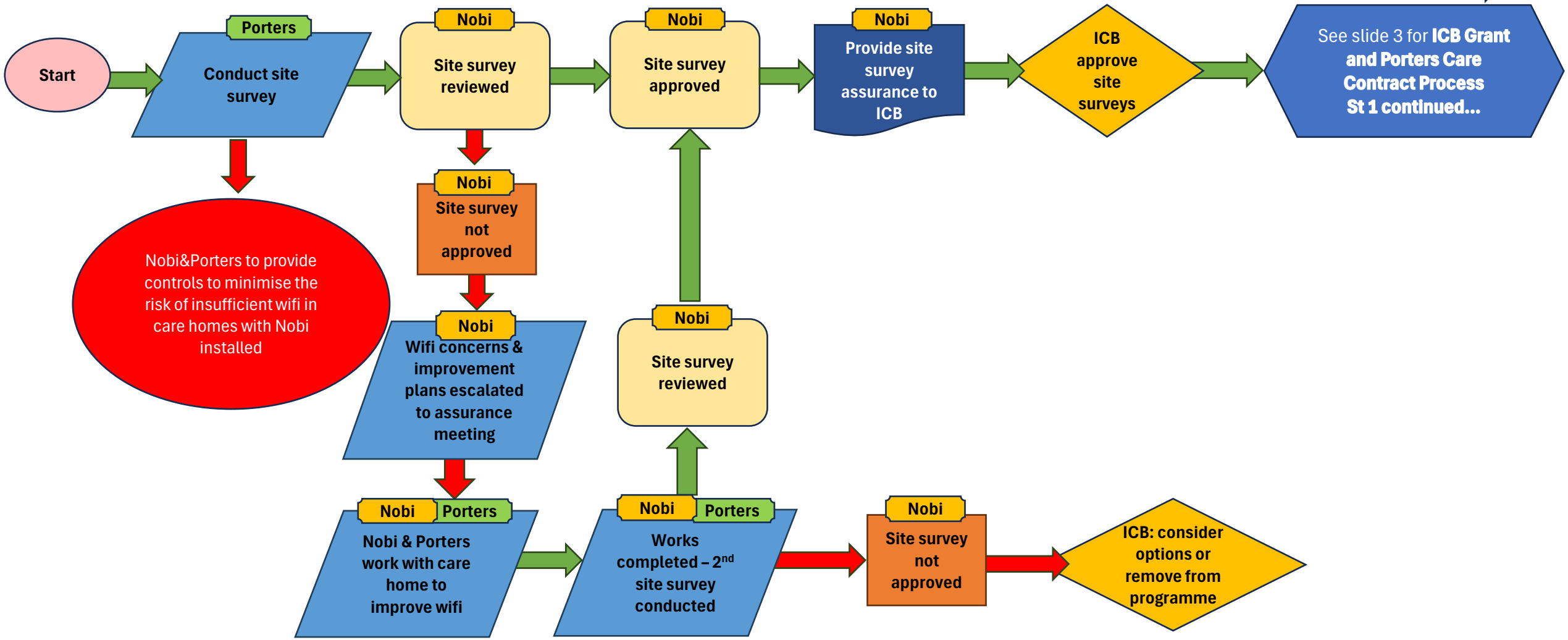
◯ Please tick to acknowledge

L&SC Nobi role out. Organisational responsibility. Note: Comms log updated within **48 hours of activity**



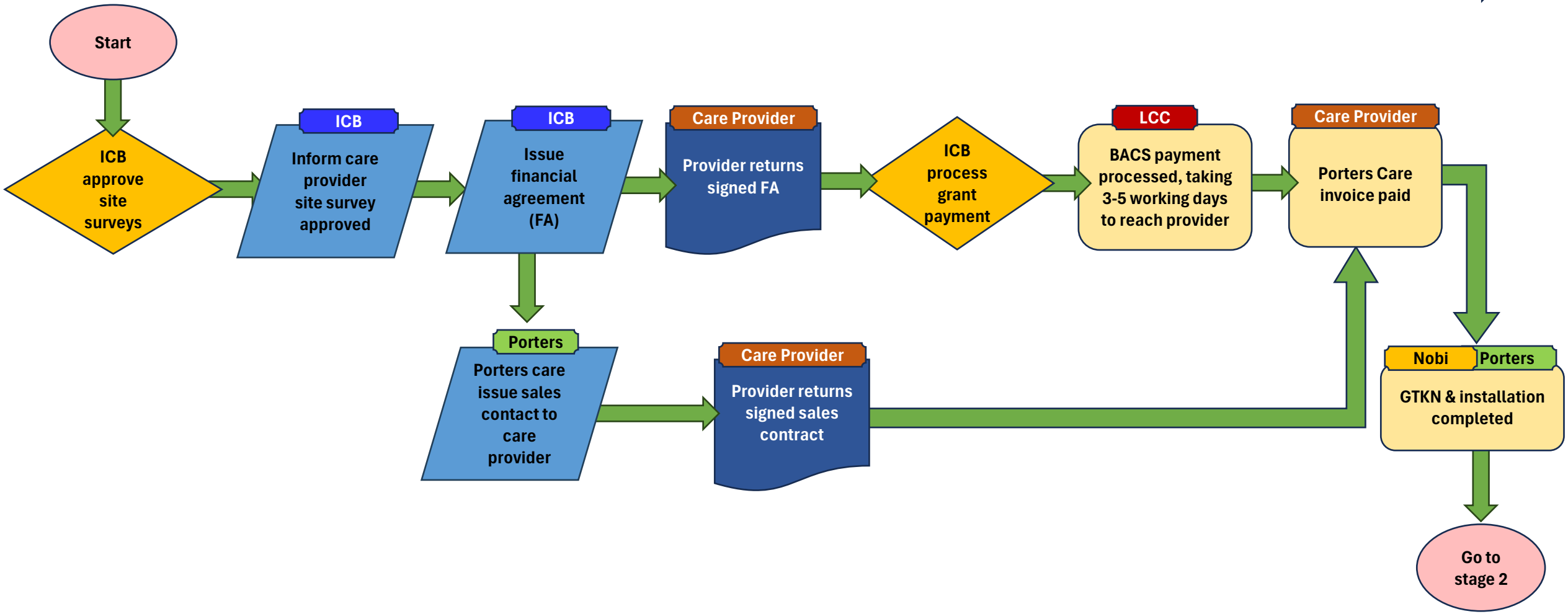
Site survey St 1

Weekly assurance meetings. Comms log updated within **48 hours of activity**



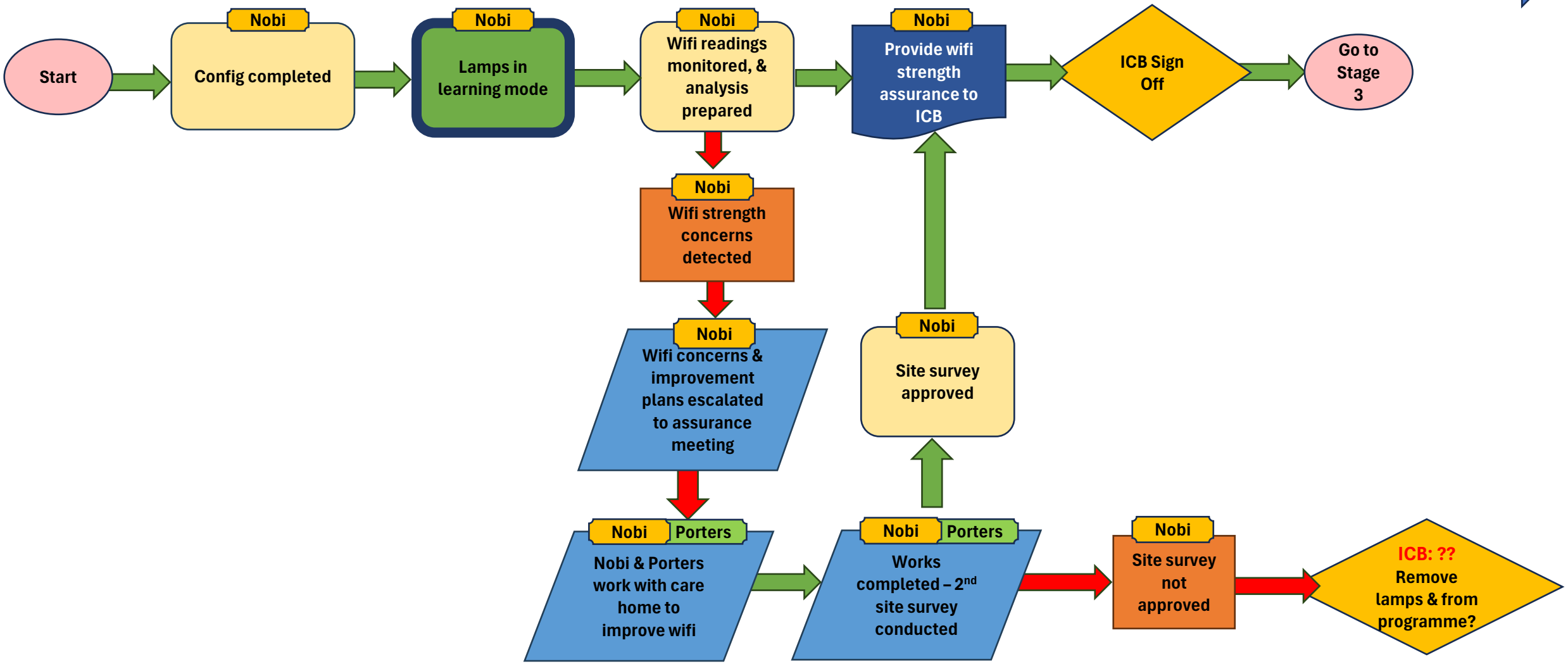
ICB Grant and Porters Care Contract Process St 1 continued...

Weekly assurance meetings. Comms log updated within **48 hours of activity**



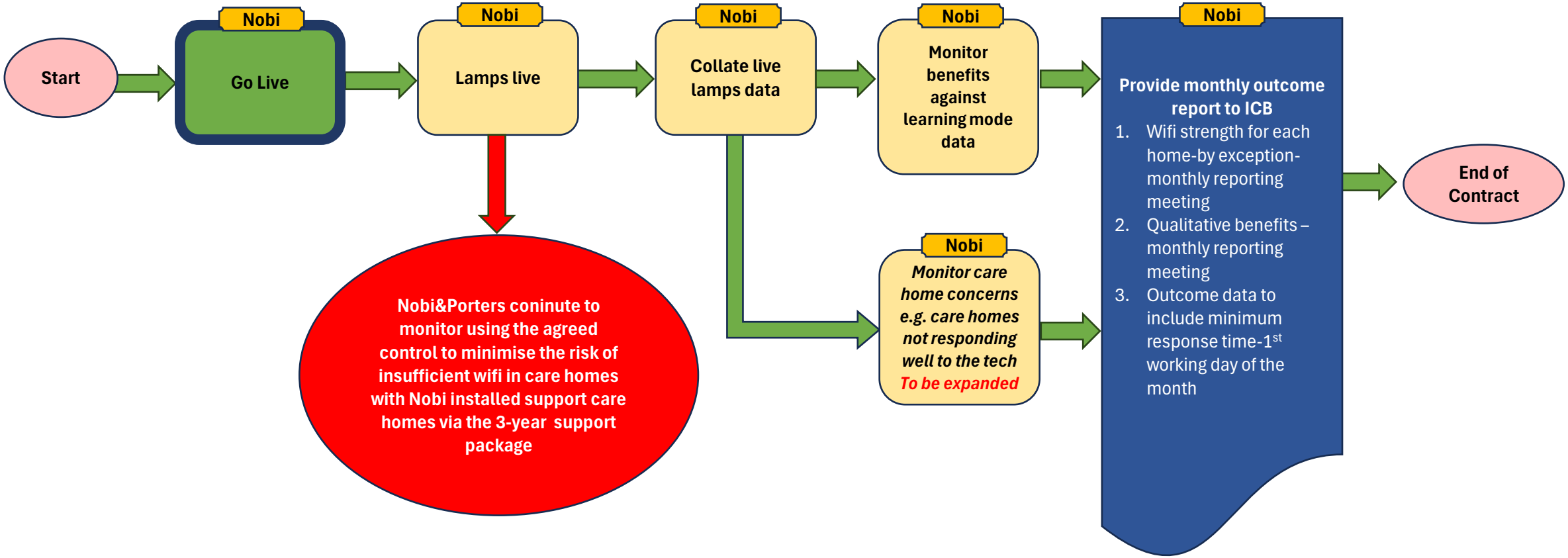
Learning mode.
St 2

Weekly assurance meetings. Comms log updated within **48 hours of activity**



Go Live
St 3

Weekly assurance meetings. Comms log updated within **48 hours of activity**



Appendix 6

Changes in quality of life for residents, assessed 2 months before and after the activation of Nobi technology in their rooms using EQ5D.

	N. of residents	Mean QALY	SD	[95% confidence interval]		Paired T-Test
Pre-installation	140	0.397	0.298	0.347	0.447	t=0.326 p=0.745
Post-Installation	140	0.388	0.358	0.328	0.448	
Difference	140	- 0.009	0.326	-0.046	0.063	

Appendix 7: Data Protection Impact Assessment

Data Protection Impact Assessment

DPIA Title:	Nobi technology in care facilities
ICB DPIA Lead: (name and job title):	

Validator's name (Information Governance):	
Validation date:	
Senior IG Consultant comments:	
Data Protection Officer consulted (date):	
Data Protection Officer comments:	
Data Protection Officer signature:	
SIRO approval (date):	
SIRO comments:	
SIRO signature:	
Caldicott Guardian consulted (date):	
Caldicott Guardian comments:	
Caldicott Guardian signature:	

OVERVIEW

This part allows you to identify and present the object of the study.

PURPLE SECTIONS TO BE COMPLETE BY ICB LEAD

PINK SECTIONS TO BE SUPPORTED BY INFORMATION GOVERNANCE

What is the process under consideration?	Guidance
The ICB is deploying 800 Nobi-lamps across 80 care facilities in Lancashire and South Cumbria. This DPIA is intended to assess the impact of data processing associated with the use of these Nobi-lamps. Context Nobi has developed and sells smart lamps to be used in care homes. The lamps monitor vulnerable people, such as the elderly or people with walking difficulties and prone to falls, and sends out an alarm if a fall occurs, providing reassurance to them and their families that help will be available when needed. With AI technology the Nobi-lamp detects locally when a person falls, provides communication between the resident and the care giver, to ensure assistance is provided promptly. The Nobi-lamp utilises advanced AI technology, specifically object detection and supervised machine learning, to detect falls. The AI system is trained using a labelled dataset containing visuals marked to indicate various scenarios such as lying in bed, falling, or neither. This ensures accurate fall detection and minimises false alarms. The AI processes data locally within the lamp, ensuring privacy and reducing the need for data transfer. In the context of the Nobi-lamp, the platform and the services provided, Nobi processes different categories of personal data relating to each resident, those being: • Personal identification data; • Housing and location data (room number in a care home or supported accommodation unit); • Sensitive data (determination of a fall); • Visuals of the room;	Present a brief outline of the processing under consideration, its nature, scope, context, purposes and stakeholders. 

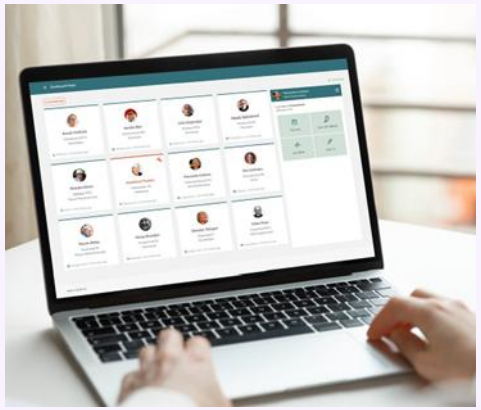
- Sound (confirm or reject a fall);
- Personal characteristics; and
- Health data (only if necessary).

A list in more detail is described below.

A complete list of personal data processed, categorised by role (care giver, care facility, resident), is also described in Nobi's privacy policy. The latest version is always available at https://eu.nobi.cloud/privacy.

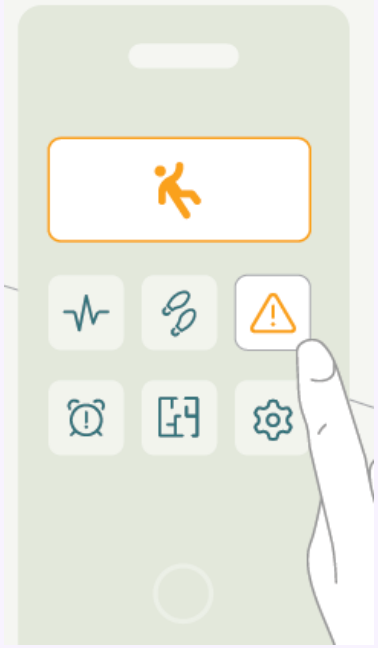
This DPIA focuses solely on the use of Nobi-lamps in care homes. The Nobi-lamp is designed to assist residents in care homes by supporting care givers in helping those at risk of falls. The Nobi-lamp aims to enhance care and communication so that the resident can live more comfortably and safe, and families are reassured.

The residents are assisted quickly in case of a fall via a notification to the Nobi platform. The caregiver receives this alert and can promptly go to the room to help. The actionable insights gained from the Nobi-lamp can ensure follow up support is effective in preventing future falls, allowing people to live longer in their desired care home. The care giver involved also benefits because fall risks are managed, and the residents will feel more reassured knowing that they will always receive prompt assistance in the event of a fall.



Type of data processing

In order to achieve these objectives (care quality, care improvement and unburdening the care industry), certain personal data of the residents needs to be processed by the Nobi-lamp and the Nobi platform (in order for it to function as intended, to notify when a person has fallen).



After installation and physical start-up of the lamp, the lamp will take visuals of the room and process these visuals locally in the Nobi-lamp. The Nobi-lamp captures visuals at a frequency of 10 frames per second (FPS) to detect falls. This is not continuous monitoring but periodic processing to ensure privacy. The lamp can enter a 15-minute snooze mode using the Nurse Button, during which it will not detect falls, providing privacy during personal care or family visits.

A profile of the resident is then created on the Nobi platform. This profile includes the resident's name, room number, profile photo, and whether it is a single or double occupancy room. The profile also specifies which caregiver should receive the notification if the lamp detects a fall.

To inform residents and visitors about image processing, Nobi provides leaflets and posters for care homes to display. These materials explain the presence and functionality of the Nobi-lamp, ensuring transparency and compliance with privacy regulations

Only in the event of an escalation (e.g. a visual on which the lamp can detect a fall that is thereafter confirmed by voice), the visual will be verified by a Nobi CheckMate-expert and then sent to the care giver to ask for help. If the lamp does not detect a fall on the visual, the visual will be erased after 30 seconds and will never be sent to the cloud. The data made available on the Nobi platform will be deleted or anonymised after 14 days. The Nobi-lamp processes visuals locally and only sends data to the cloud if a fall is detected. The cloud servers are located in Frankfurt and are managed by Amazon Web Services (AWS). Access to these servers is strictly controlled, with two-factor authentication and limited access to ensure data security

Verbal confirmation

After a fall is detected by the Nobi-lamp, a voice will ask, "Have you fallen?". The response is recorded and analysed to determine whether a notification needs to be sent. If the resident does not clearly indicate that it was not a fall, the lamp will

notify the care giver, and a notification will appear in the resident's profile within the Nobi platform. The Nobi-lamp does not continuously record audio. Audio recordings are only made after a fall is detected to confirm the fall. The lamp asks, 'Have you fallen?' and records the response to determine if assistance is needed. To help the resident become familiar with this confirmation process, the Nobi-lamp will greet the resident in the morning. This ensures the resident becomes accustomed to the lamp's voice during a fall confirmation.

Live view

In addition to fall prevention, the lamp can track, based on the visuals, when a person gets in or out of bed. This timeline can be viewed in the Live View option on the resident's profile in the Nobi platform.

Thanks to this feature, the lamp can automatically provide lighting when the resident gets out of bed, aiding in fall prevention.

CheckMate

To strive for faultless fall detection Nobi provides second-line verification, where a (human) expert reviews the visual captured by the lamp before a notification is sent to the care giver. If the expert confirms that it is not a fall, no notification is sent. To ensure privacy, the visuals are displayed only within Nobi's own secure server environment, the resident's face is blurred using advanced techniques that heavily pixelate the visual and obscure any distinguishing facial features. No personal data of the resident is shown or made available to the expert. Additionally, the visual is only temporarily visible for the expert, displayed for 90 seconds before being permanently deleted to prevent function creep.

The DPIA includes comprehensive governance measures, such as compliance with the Data Security and Protection Toolkit (DSPT), ICO registration, regular system maintenance, data hosting details, system audits, access controls, and data retention policies. These measures ensure the confidentiality, security, and appropriate use of data.

- What does the new process do – describe from data collection to end

Fall detection

Data is collected through 2 channels:

(1) the Nobi-lamp, and

(2) the Nobi-platform (the software application – accessible to the care giver via computer or mobile software).

Identification data and certain individual characteristics, are entered in the Nobi-platform to set up a profile page for the specific resident by the care giver namely: first name, last name, call name, birth date, gender, language, profile picture, room number, consent to use visuals/not.

After installation and physical start-up of the lamp, the lamp will take visuals of the room and process these visuals locally in the Nobi-lamp. The AI processor will detect when a posture on a visual can be qualified as a fall.

Only in the event of an escalation (e.g. a visual on which the lamp can detect a fall and that is verbally confirmed by the resident), a notification will be sent to the care giver to ask for help. The residents can choose whether to include, along with the notification, a full visual, a stick figure representation, or nothing to send to the caregiver. This choice is specified in the resident's profile privacy settings after obtaining their informed consent. All notifications together with any visuals are deleted after 14 days.

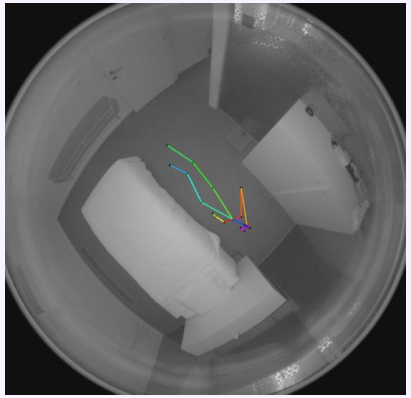
If the lamp does not detect a fall on the visual, the visual will be erased after 30 seconds and will never be sent to the cloud.

Frequency of processing the data

The Nobi-lamp will capture visual data on an ongoing basis unless the care giver presses the Nurse Presence Button. As part of the Nobi options (wireless and battery-less), the lamp then enters a 15-minute snooze mode. During this period, the lamp will not detect falls, which is useful when someone is present in the room providing assistance.

It is important to note that the Nobi-lamp is not a CCTV system; it does not provide continuous video monitoring or recording. It processes visual data locally at a frequency of 10 frames per second (FPS) solely to detect specific events, such as falls, ensuring privacy while delivering essential assistance.

Data is transferred from the Nobi-lamp to the Nobi platform solely to serve the residents' best interests.



- Which AI technology is used

The AI technology within the Nobi-lamp uses object detection and supervised machine learning to recognise and identify new fall cases.

Nobi developed its AI system using a labelled dataset containing visuals marked to indicate whether a person is lying in bed, has fallen, or neither. By analysing these labels, the system learns and identifies patterns and can detect similar scenarios in new visual data. To protect privacy, Nobi ensures that all identifiable information is removed from the visual data before using it to train the AI system.

- Who are the key stakeholders and what are the responsibilities of the stakeholders

The relevant stakeholders are the residents and the care givers in care homes.

- Who is the Data Controller

The care home that offers the Nobi-lamp to its resident's act as the data controller.

Nobi acts as a data processor on instruction and on behalf of the care home with regards to the processing of personal data of the Nobi-users (residents) residing in care facilities.

- What is the role of the ICB in relation to the project

The ICB plays a crucial role as the commissioner of the smart lamps. The ICB:

- Is responsible for determining which care facilities receive the Nobi-lamps;
- Has created this Blueprint for the DPIA process, on behalf of the care facilities, to assess the impact of data processing associated with the use of Nobi-lamps. This includes evaluating the types of data collected, the purposes of data processing, and the measures in place to protect personal data;
- Coordinates with various stakeholders, including Nobi-users (residents), care givers, staff members, and ICB personnel. This ensures that all parties are informed and involved in the project; and
- Ensures that all data processing activities comply with relevant data protection laws and regulations, such as the GDPR.

- What data will be collected and why

When activating the Nobi-lamp and setting up a profile of the resident on the Nobi platform, the following data is collected:

- Identification details and personal characteristics: name, date of birth, gender, language and a photograph (to aid recognition if the caregiver does not know the resident's name (e.g., a new staff member), they can visually identify the resident to provide assistance);
- Identification details of the care giver to whom the notification will be sent in case of a fall (name, phone number, email address). If individuals/care givers wish to receive calls, they must provide their phone number. Alternatively, it is possible to enter a general number for a department or the care home, in which case the number will not be linked to a specific user/data subject. To receive notifications, users of the Nobi application are required to install the application.
- Whether the room where the Nobi-lamp is active, is occupied by one or more individuals, so that it can be determined who should be notified in case of a fall, and certain functionalities can be turned off (e.g. Live view function, in/out of room, morning greeting are not active in double-occupancy rooms).

Regarding the use of the Nobi-lamp for fall detection:

- The resident's room number;
- Living habits, meaning that the Nobi-lamp records whether the resident is in or out of the room, whether they are alone or with others in the room, whether they are in or out of bed, and whether or not they have fallen, solely for the purposes of operating and using the Nobi-lamp;
- Data regarding the specific situation or incidents (e.g. falls) if the care giver registers them under the resident's name on the Nobi-platform;
- Recordings (only visuals, no CCTV footage), essential for the functionalities and optimal use of the Nobi-lamp. The Nobi-lamp evaluates whether a fall has occurred based on the visual recording. Any furniture, other people, photographs, devices such as a TV (with or without images displayed, as the Nobi-lamp only captures infrared), sports equipment or other materials or goods that are within the range of the Nobi-lamp's optical sensor may be

included in the visual. Recordings are only processed on the basis of prior consent obtained from the resident in the form of a consent form;
- Sound recordings after the recognition of a fall. The Nobi-lamp will, after each recognised fall, ask the resident to verbally confirm whether or not they have fallen;
- Special categories of data, namely health data of the resident, to the extent that this is relevant to the use of the Nobi-lamp: data related to physical health such as fall history, data related to mental health: fear of falling, dementia, data on the sleep pattern (limited to in/out of bed).

The following personal data of care givers will be processed:

- Login credentials to gain access to the Nobi platform (such as user ID and password);
- Contact information when setting up the Nobi platform settings, such as their name, email address and phone number (optional);
- A limited part of the IP address of the care givers device on which the Nobi platform is installed;
- Essential cookies that are required for technical reasons in order for the Nobi platform to function correctly.

- Regarding (appointees of) the care home, the following types of personal data will be processed:
  - Identification details of the care provider, social worker, appointee or employee of the care home: name, e-mail address, phone number;
  - Identification details if the care home contracts with Nobi under the form of a legal entity: name, registered office, address(es), company number and VAT number of the company or organisation, as well as names, positions and email addresses of the contact persons, appointees or employees of the company or organisation;
  - Financial information about the care home such as account number and other payment information.

These types of personal data are processed for the purpose of residents, care givers or the care homes use of the Nobi-lamp, the Nobi platform and other Nobi services. The main purpose of the processing of the above-mentioned personal data is to provide virtual care for the residents as well as falls detection and prevention. There are also other purposes for the processing, such as:

- Contacting data subjects, processing their questions and/or complaints and providing the residents, care givers or care home with information;
- Providing the Nobi (platform) services to enable the residents, other users or care home to access the Nobi-lamp and the Nobi platform, to create accounts and profiles for them and to facilitate communication between the residents and the care givers.
- Back-office services (e.g., customer service, help desk.

- Does the ICB process (receive) any personal data

The ICB's role involves overseeing the deployment and ensuring compliance with data protection regulations. The ICB will not process any personal data.

- Are there any third-party transfers

Data is shared with:

- Service providers, subcontractors or sub processors of Nobi, such as IT or software partners, hosting providers etc. within the context and limits (minimisation) to be able to provide the service; An overview of the sub processors is added below.
- Accountants, auditors, company auditors, insurance brokers, insurers, legal advisors, or other service providers of Nobi to the extent necessary in the context of their assistance;
- Supervisory authorities, courts or government agencies if Nobi or the care home is required to do so.

To be able to provide the functionalities of the lamp and the platform, data is shared with service providers, subcontractors or sub processors of Nobi limited to and within the context of the Nobi services, such as IT or software partners with whom Nobi has signed strict agreements regarding data protection.

Amazon Web Services	Cloud service provider All personal data of the residents. Nobi employees never have physical access to these data centers. Access to the AWS management console is restricted to the strictly necessary. Users are required to use two-factor authentication to maximise the security of their accounts. Access to the virtual servers is also managed through these accounts. Only the IT manager has this level of access.	On 10 July 2023, the European Commission adopted its adequacy decision for the EU-U.S. Data Privacy Framework (DPF). AWS has certified to the EU-U.S. Data Privacy Framework (DPF) - (geographically separated locations with its own infrastructure) within Amazon's Frankfurt data center.
Twilio	Nobi leverages Twilio, a cloud communications platform that provides programmable tools for sending and receiving text messages (SMS) and enabling voice calls through its web service APIs. Text messages are used to notify incidents such as a fall or to indicate that an escalation has been closed. Twilio also facilitates voice communication with residents and supports two-factor authentication (2FA) to enhance system security. Message example: "*Hello, an escalation has occurred in [Name facility] (Room number X).*"	On 10 July 2023, the European Commission adopted its adequacy decision for the EU-U.S. Data Privacy Framework (DPF). Twilio has certified to the EU-U.S. Data Privacy Framework (DPF). Nevertheless, the infrastructure on which the data of Nobi is hosted, is located in the EU.
Mailgun	Nobi utilises Mailgun, a transactional email API service. Mailgun is used to deliver essential email communications, including notifications and two-factor authentication (2FA) processes.	Data through Mailgun is hosted on EU servers (Messages, domain metadata, statistics, routes, IP addresses). Only Nobi's account information, billing details and API Keys are stored globally. EU Model standard contractual clauses between Mailgun and Nobi. https://www.mailgun.com/about/regions/

- Which Stakeholder will be the contract holder

The controller: the care home.

- Are there the correct contracts and agreements in place

Yes, there is a contract between Nobi and the care facility. This agreement outlines the guarantees for appropriate technical and organisational measures to protect the personal data of residents, for which the care facility is responsible. This ensures that Nobi processes personal data on instruction and on behalf of the care home, in compliance with data protection regulations.

- Is there any Data Sharing/Data Processing? If yes, then a Data Sharing Agreement and/or Data Processing Agreement may be required

A DPIA and a Data Sharing Agreement are required in accordance with Article 28.3 GDPR.

- Are there any SOPs or policies to support this, that can be included as part of the DPIA

It is the responsibility of each care home to manage its own accountability documentation for its own data protection. However, each care home will have one or more of the following

- Data Protection Policy
- Information Security Policy
- Data Breach Policy
- Data Sharing Agreement
- Confidentiality Agreement
- Consent Management Policy
- Access Control Policy
- Data Retention and Disposal Policy
- Training and Awareness Policy
- Incident Response Plan

Nobi holds a:

- Privacy policy
- Data protection policy
- Information Security policy
- IT policy (internal document)
- Data breach policy (internal document)

- What are the risks if this project/initiative doesn't go ahead?

Falls are the main reason that incidents are recorded in care homes. If the program does not go ahead on this scale, 800 residents living in a care home, who are identified at risk of a fall, could continue to fall without being noticed (an unwitnessed

fall) or could remain on the floor for a long period of time, known as a long lie and will thus experience pain or discomfort for a longer period. Summarised we see the key risks of not going ahead with the project as follows: • Increased risk of injury due to falls: Without fall-detecting Nobi-lamps, there is a higher chance of serious injuries from unnoticed falls. • Delay in providing assistance: Falls may go unnoticed, leading to delayed medical intervention and potentially worsening injuries. • Increased workload for staff: Staff may need to perform more frequent checks, increasing their workload and stress levels. • Insufficient monitoring of residents: Without automated detection, falls may be missed, particularly during off-hours, reducing resident safety. - Include what (if anything) has been ruled out and why as well as the justification of what the chosen option is for this project/initiative Nobi technology appears to be the only product available that significantly reduces the number of unwitnessed falls, long lies (>1 hour) and provides preventative approaches to avoiding further falls. Other alternatives are for a falls detection mat which limits the area for a fall to be detected, acoustic monitoring technology or, continuing to rely on human supervision within a depleted workforce.	
Will the process necessitate the use/processing/collection/sharing of any personal or pseudonymised data?	
Please answer Yes or No IF NO, NO FURTHER QUESTIONS NEED TO BE COMPLETED, PLEASE PASS TO INFORMATION GOVERNANCE FOR REVIEW	Personal data Any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. See Art. 4.1 of [GDPR]
Yes	

Pseudonymised data

Personal data which have undergone pseudonymisation, which could be attributed to a natural person by the use of additional information should be considered to be information on an identifiable natural person.

What are the responsibilities linked to the processing?

Describe the responsibilities of the stakeholders: the data controller, the possible data processors and joint controllers (role of the controller and the processor and what they do with the data)

This is where it should identify who all the parties to the project are, including data controllers of the data, if there are joint data controllers and if there are any data processors involved. It should explain the role of the controller and the processor, and what they do with the data.

Here is a table describing the responsibilities of the stakeholders involved in the Nobi project:

Stakeholder	Role	Responsibilities
Care Home	Data Controller	Determines the purposes and means of processing personal data. Ensures compliance with UK GDPR. Manages data subject rights requests. Implements data protection policies and procedures. Conducts Data Protection Impact Assessments (DPIAs).
Nobi	Data Processor	Processes personal data on behalf of the care home. Follows documented processing instructions from the care home. Implements appropriate technical and organisational measures to protect personal data. Notifies the care home of any data breaches. Engages sub-processors only with prior authorisation from the care home (AWS, Twilio, Mailgun, see above).
Integrated Care Board (ICB)	Commissioner/Overseer	Oversees the deployment of Nobi-lamps. Ensures compliance with data protection regulations. Coordinates with stakeholders. Leads the DPIA process.

Definition: Data Controller

Natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law.
See Art. 4.7 of [GDPR]

Definition: Data Processor

Natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller, see Art. 4.8 of [GDPR].
The processor and any person acting under the authority of the controller or of the processor, who has access to personal data, shall not process those data except on instructions from the controller, unless required to do so by Union or Member State law, see Art. 29 of [GDPR].

What governance measures are in place to oversee the confidentiality, security and appropriate use of the data?	Governance measures may include compliance with the Data Security and Protection Toolkit, having IG, data security and data breach policies and procedures in place, 95% minimum staff compliance with IG training. Note that "All organisations that have access to NHS patient information must provide assurances that they are practising good information governance and use the Data Security and Protection Toolkit to evidence this by the publication of annual assessments" (https://www.dsptoolkit.nhs.uk/Help/Attachment/5)
In here, we need confirmation that each organisation who will have access to PCD, has a compliant toolkit, IG security policies in place, breach procedures in place and that their staff are trained. If a system is involved, it should also include all the security information around the system including where the servers are held. Technical and organisational measures (TOMs): Care home The ICB Project Team will support all care facilities involved in the Nobi project to have robust governance measures in place to safeguard the protection and proper handling of personal data. These measures include compliance with the Data Security and Protection Toolkit (DSPT), which includes staff training on data protection principles, and adherence to established policies and procedures for data security, confidentiality, and breach management. This ensures that all data processing activities are conducted in a secure, compliant, and transparent manner, safeguarding the privacy and rights of the individuals whose data is being processed. Technical and organisational measures (TOMs): Nobi Nobi takes all appropriate technical and organisational security measures to comply with data protection obligations. Nobi has an Information Security Policy in place that provides detailed guidelines on two-factor authentication, encryption, physical security measures, retention periods, etc. Additionally, Nobi holds a Data Protection Registration Certificate with Registration Reference: ZB792945 from the ICO. A DTAC has also been pursued, and obtaining ISO27001 certification is planned for summer 2025. Regarding the use of AI technology in the Nobi-lamp Nobi developed a light that is installed on the ceiling of a resident's room in a care home. The light contains an AI processor trained with labelled data to determine, from visuals, whether someone is in bed or has fallen. Using its AI processor and object recognition capabilities, the light can identify patterns, detect if someone has fallen, and send an event to the Nobi platform in such cases. Training of the AI processor Nobi developed its AI system using a labelled dataset containing visuals marked to indicate whether a person is standing, sitting, sitting on the floor, lying on the floor, sitting on the bed, empty bed or if the bed is occupied. By analysing these labels, the system has learned and identifies patterns and can detect similar scenarios in new visual data. Human involvement in decision-making?	

The Nobi-lamp's AI processor detects patterns (e.g. falls, in/out bed) and sends notifications to the Nobi platform. A fall notification is reviewed by the Nobi experts ensuring human oversight. The AI system does not make autonomous final decisions regarding care actions—human involvement by the care giver is integral to the care process. Is there a less privacy intrusive way? The Nobi-lamp design adheres to privacy by design principles, ensuring minimal data processing. Options such as sending abstract visuals (stick figures) or no visuals at all are available to reduce privacy concerns. It is also ensured that data is transferred only in the event of a fall; all other data is deleted locally on the lamp. Using traditional systems (e.g., manual monitoring) might be intrusive, but such methods would lack the Nobi lamp's responsiveness and reliability in fall detection. Weighing AI use against potential risks The Nobi lamp is designed to enhance safety and well-being while minimising risks to individual rights and freedoms. The system processes data locally within the lamp's AI processor to avoid unnecessary data transfers. By using AI in the lamp, significantly less data needs to be analysed, which reduces the privacy impact for the resident because of the implementation of AI. Expectations of the residents Residents and caregivers are informed about the AI's role when the resident's profile is made on the Nobi platform, ensuring transparency. The AI is solely used for fall detection and prevention, aligning with the reasonable expectations of the residents when the profile is made. Statistical Accuracy and Non-Discrimination The AI processor has been trained on diverse, labelled datasets to ensure reliable fall detection and reduce biases. Continuous testing and updates aim to improve accuracy while avoiding discriminatory outcomes. it is ensured that the dataset is representative of all residents in the care facility, encompassing various room types, furniture arrangements, lighting conditions, and interior designs. Inclusivity: captured images under diverse conditions, including different times of the day (day/night), seasons (lighting variations), and with varied backgrounds. Retention periods If the Nobi lamp does not detect a fall on the visual, the visual will be erased after 30 seconds and will never be sent to the cloud. If the Nobi lamp does detect a fall on the visual, a notification (with or without visual) will be sent to the Nobi platform and the visual will be erased from the Nobi-lamp after 30 seconds.	

DATA, PROCESSES AND SUPPORTING ASSETS

This part allows you to define and describe the scope of the processing in detail.

What is the data processed?

List the data collected and processed. Define for each the storage durations, the recipients and persons with access

In here should be a list of personal data being processed, i.e, name, address, date of birth, NHS number etc…. It should also explain who (preferably job roles, or at least department names) will have access and what data they will have access to. It should also confirm how long the data will be retained for, where it will be stored and how it will be transferred.

Data / description (detail list see above)	Retention period	Recipients (preferably job roles, or at least department names) will have access and what data they will have access to.)
Identification data	Until end of licence agreement (for use of the Nobi-platform being the software application with which a user of the platform interacts with the Nobi-lamp).	Care home staff Nobi Sub processors of Nobi
Identification details of the care giver	Until end of licence agreement or if care giver is replaced (before end of licence agreement) by other care giver.	Care home staff Nobi Sub processors of Nobi
Visuals	Within the fall detection feature, the visuals taken by the Nobi-lamp are stored locally in the lamp itself for 30 seconds. Only if, following analysis by the processor in the Nobi-lamp, a fall incident is detected and the fall is not verbally rejected by the resident, a notification is sent to the care giver, whether or not (depending on the privacy settings	Care home staff Nobi Sub processors of Nobi

Data and processes

Define and describe the scope in detail:
- the personal data concerned, their recipients and storage durations
- description of the processes and personal data supporting assets for the entire personal data life cycle (from collection to erasure).

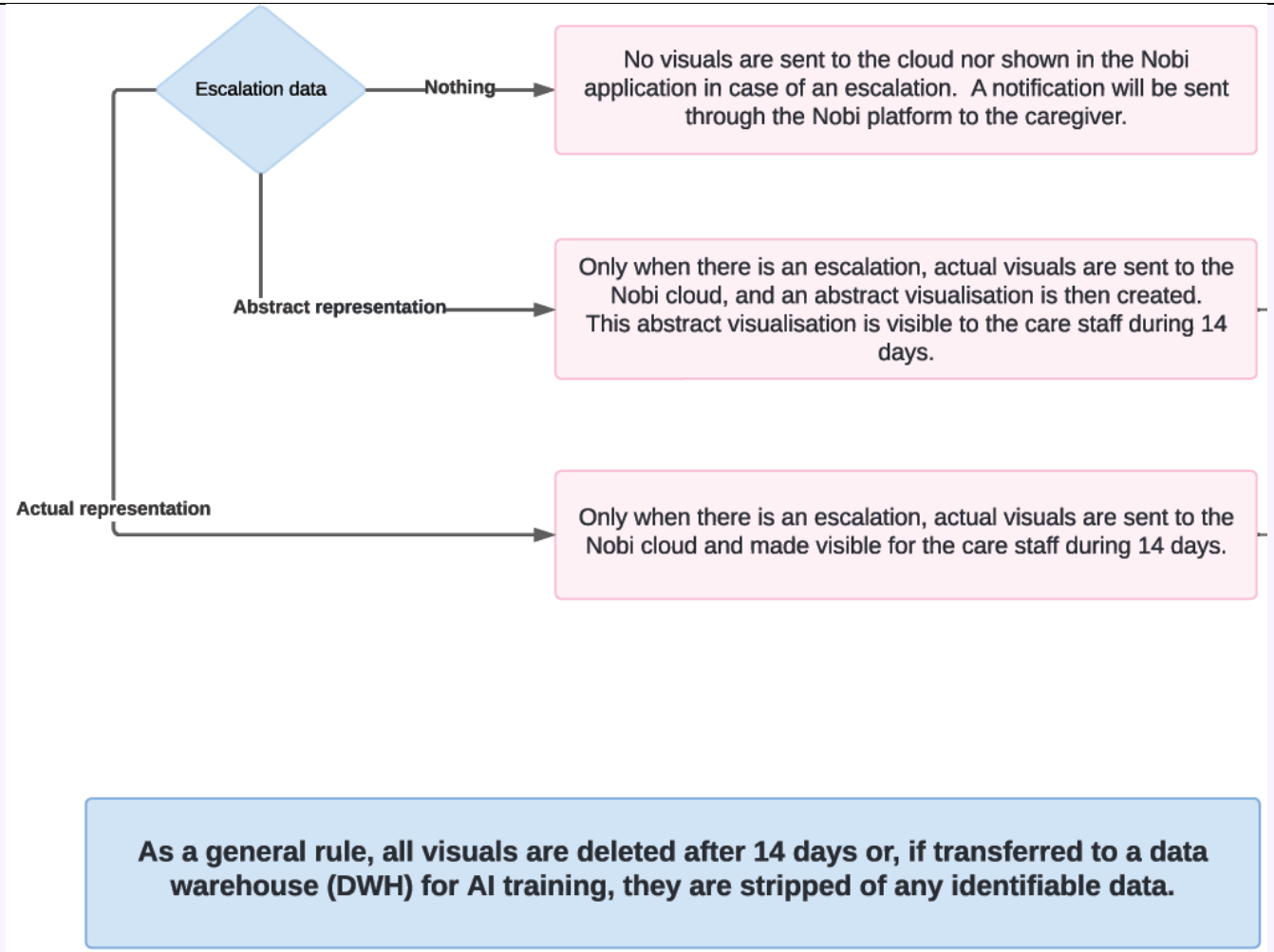
Recipient

Natural or legal person, public authority, agency or another body, to which the personal data are disclosed, whether a third party or not. However, public authorities which may receive personal data in the framework of a particular inquiry in accordance with Union or Member State law shall not be regarded as recipients; the processing of those data by those public authorities shall be in compliance with the applicable data protection rules according

	chosen after informed consent) accompanied by the visual. If the option is chosen to send the visual (stick figure or full visual) with the notification in the event of a fall incident, it will be retained for a maximum of 14 days within the lamp. If the Live view is chosen to be enabled, all visuals throughout the day/night are converted into stick figure visuals locally in the Nobi-lamp and the stick figure visuals are made available on the platform for up to 14 days. The Live view function automatically turns itself off once a person is in bed. The visuals within the CheckMate function are made available to Nobi experts for 90 seconds, after which the visual is erased from the environment accessible to the expert. No personal data is shared on this environment.		to the purposes of the processing. see Art. 4.9 of the [GDPR] Personal data Any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. See Art. 4.1 of [GDPR]
Sound material (verbal rejection or confirmation of a fall)	Until end of licence agreement.	Care home staff Nobi Sub processors of Nobi	
Electronic identification and location data (app or website use)	Described in detail in Nobi's cookie policy.	Care home staff Nobi Sub processors of Nobi	
Patterns on movement (in/out of room or in/out of bed or fall/no fall) / movement in house	Until end of licence agreement.	Care home staff Nobi Sub processors of Nobi	
Health data, sensitive data, data of a personal nature, physical data, personal characteristics (i.e. all data entered into the	Until end of licence agreement.	Care home staff Nobi	

Nobi-platform to complement the user's profile if necessary)		Sub processors of Nobi
Housing characteristics (room number; one or double occupancy)	Until end of licence agreement.	Care home staff Nobi Sub processors of Nobi
Content added into the Nobi-platform by the user (or the person who was authorised to access the user profile)	Until end of licence agreement.	Care home staff Nobi Sub processors of Nobi

The resident has the choice to include, along with the fall notification, no visual, an abstract representation (stick figure), or the actual representation (full visual):

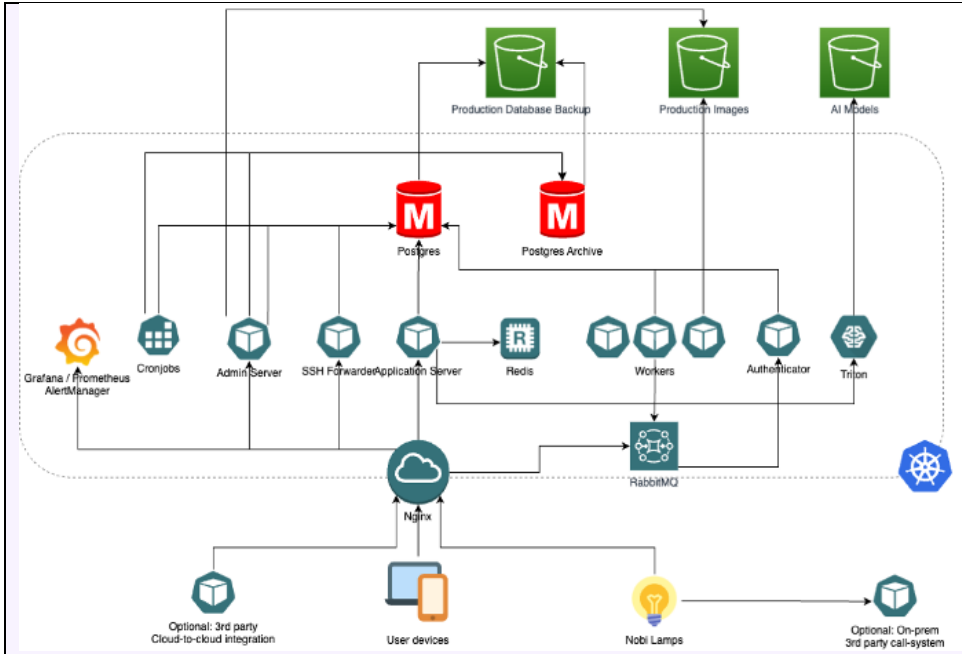


How does the life cycle of data and processes work?

Present and describe how the product generally works (from the data collection to the data destruction, the different processing stages, storage, etc.), using for example a diagram of data flows (add it as an attachment) and a detailed description of the processes carried out.	
Ideally a flow chart will be added in here to explain where the data originates, where/who it is transferred (flows) to and what happens to the data at each point. We need to understand the full flow of data from start to finish. E.g: *"GP (data controller) collates list of patients with COPD and emails patient name and contact information via nhs.net to community district nurses. Community district nurses contact patients to offer clinic appointments. Community district nurses then use the patient information to create their own patient records on their system. Community district nurses now become data controllers in their own right."* - What happens to the Data after it is collected - What information comes from where? - Where does it go? - Who sees the Data? • Why do they need to see the Data? For every new Nobi-user, a physical lamp is installed in the living space and a profile page is created on the Nobi platform. On the Nobi platform, identification details such as name, room number, photo, and any necessary information are added. After installation and the physical startup of the lamp, the lamp will take visuals of the room and process these visuals within the Nobi-lamp locally. Data is collected through (1) the Nobi platform and (2) the lamp itself. The lamp will periodically (10 FPS) take a visual. If the Nurse button is pressed, a 15-minute snooze mode will enter. Only in the event of an escalation, e.g. a visual on which the lamp through its local processor, can detect a fall that is thereafter confirmed verbally, the visual will be sent to the care giver to ask for help. If the lamp does not detect a fall on the visual, the visual will be erased after 30 seconds and will never be sent to the cloud. Source The source of the data is: (1) the care givers who insert data manually in the Nobi-platform and, (2) the lamp that generates visuals. Transfer Certain data about the resident is shared with care givers.	

Additionally, to be able to provide the functionalities of the lamp, data is shared with service providers, subcontractors or sub processors of Nobi limited to and within the context of the Nobi services, such as IT or software partners with whom Nobi has signed strict agreements regarding data protection. A more detailed table is added above.

(Sub)processor	Description of the services	Transfer outside EU
Amazon Web Services	Cloud service provider	No, EU servers
Twilio	Cloud communications company which provides programmable communication tools for making and receiving phone calls, sending and receiving text messages, and performing other communication functions using its web service APIs.	EU-U.S. Data Privacy Framework No, data hosted on EU infrastructure
Mailgun	Transactional Email API Service in the Nobi platform, used for the notification of falls	EU Model standard contractual clauses No, personal data of the resident is stored on EU infrastructure



What are the data supporting assets?	
List the data supporting assets (operating systems, business applications, database management systems, office suites, protocols, configurations, etc.)	Supporting asset Asset on which personal data rely. Note: this may be hardware, software, networks, people, paper or paper transmission channels.
This should confirm what assets will be involved in processing the data, i.e, how will data be transferred and where will it be held whilst at rest? Will it be via NHS mail or another encrypted system. It should also confirm where the data will be stored, i.e, on EMIS or another system, where are servers located? If paper, where will paper records be stored. Data will be transferred using secure, encrypted systems. 1. Data storage: • The data will be stored on the care home's PCs. These PCs will have appropriate security measures in place, such as encryption, access controls, and regular security updates, to protect the data while at rest. • Some data will also be stored on the Nobi platform, which is hosted on servers managed by Amazon Web Services (AWS) located in Frankfurt. AWS is affiliated with the US-EU Data Privacy Framework, ensuring compliance with data protection standards.	

2. Systems used: • The Nobi platform (accessible via computer or mobile software) will be used for data collection and processing. • The Nobi-lamp, which captures and processes visuals locally before any necessary data is sent to the cloud. • The care homes may also use other systems such as a Digital Social Care Record to manage and store data. 3. Paper records: ○ No paper records are used.	

Fundamental principles

This section allows you to build the compliance framework for privacy principles.

PROPORTIONALITY AND NECESSITY

This part allows you to demonstrate that you are implementing the necessary means to enable the persons concerned to exercise their rights.

Are the processing purposes specified, explicit and legitimate?	
Explain why the processing purposes are specified, explicit and legitimate. How is the legal basis being specified?	Principles relating to processing of personal data

Need an explanation here of exactly why all the personal data is required for the project and confirmation that the data will only be processed for the project described in this DPIA and not further processed without identifying another legal basis for it. Purpose The Nobi-lamp is intended to enhance the care of vulnerable adults. The Nobi-lamp is designed to support a care home in the context of fall prevention (by using the smart light). Nobi does this by providing preventive care (fall prevention), detecting a fall via the Nobi-lamp (fall detection) and notifying caregivers of this fall so that the person in need of care can be assisted as quickly as possible. In other words, the care of the resident and fall prevention are the primary purposes of processing the personal data. The care home can process data subjects' identification details to contact them, process the questions or complaints they may have and provide them with necessary information about the Nobi-lamp or the Nobi platform. The Controller is responsible for responding to data subject right requests, complaints, etc. Nobi also processes the personal data to provide its (platform) services to the data subjects, to enable them to access the Nobi-lamp and the Nobi platform, to create accounts and profiles for them and to facilitate communication between the residents and the caregivers. Personal data (such as financial data) of the care home is processed in the context of Nobi's back-office services, customer service/help desk, management of our customer files and users, payments, administration, invoicing, solvency follow-up and for our accounting purposes. All personal data is processed solely with regard to the aforementioned purposes.	Personal data shall be collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes. See Art. 5.1 b) of [GDPR]
What is the lawful basis for processing the data?	
What is the legal basis for processing the data? – direct care, legislation or consent, (don't forget, consent should be a last resort and only used if there is no direct care or legislation in place). Remember to identify which Article 6 or 9 conditions will be used and if there is supporting legislation, what that legislation is, including the specific section of the legislation which supports the use of data for this purpose.	Justification of lawfulness - The data subject has given consent to the processing of his or her personal data for one or more specific purposes - Processing is necessary for the performance of a

The lawful bases that apply are: As the data controller, the care home is responsible for ensuring that the processing is based on a valid lawful base as outlined in the UK GDPR. The care home may choose to base the processing on consent as the lawful ground. If consent is chosen as the lawful basis, Nobi provides a template consent form and training to the care home to facilitate the consent process, which remains under the care facility's responsibility. Consent must first be obtained directly from the resident after thoroughly informing the resident about the working of the Nobi lamp. If the resident is deemed legally incapacitated, meaning the person is no longer able to independently make legally valid decisions, consent must be sought from their guardian or legal representative. If neither is available, consent must be obtained through the care giver, who will coordinate with the appropriate authorities. Nobi provides training material to inform the resident or the legal representative about the working and the risks of the Nobi-lamp. When consent is given, this consent will be logged in the profile of the resident on the Nobi platform. For this purpose, a checkbox is provided in the Nobi platform.	contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract -Processing is necessary for compliance with a legal obligation to which the controller is subject - Processing is necessary in order to protect the vital interests of the data subject or of another natural person - Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller - Processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child See art. 6 of [GDPR]
Is the data collected adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed ('data minimisation')?	
Explain why each of the data collected is necessary for the purposes of your processing.	Data minimisation It is important to reduce the severity of the risks by minimising the number of personal data that will be processed, by limiting such data to what is strictly necessary for the purposes for which they are processed (otherwise they should not be collected). Then, it also becomes possible to minimise the data themselves, via controls aimed at reducing their sensitivity. Minimising the amount of personal data Reduce the severity of risks by limiting the amount of personal data to what is strictly necessary to achieve a defined purpose, otherwise the data shall be not collected.
Need confirmation in here that there is no personal data being processed that isn't absolutely necessary for the purpose of the project. Is any information being collected that isn't required to complete the project?	
Will the Data be used for profiling? What will happen with the data afterwards? What data fields will be collected? Purpose Limitation – confirmation that the data will only be used for the purposes of this project/initiative? Data Minimisation – Does all the data being processed need to be identifiable or can it be anonymised or pseudonymised in some way? Can it be de-identified and re-identified if needs be? Data minimisation Nobi only processes personal data that is necessary for the purposes as described above and that is determined in the agreement between the care home and Nobi. Insofar as personal data is processed, it concerns strongly minimised personal data (visual reduced to a stick figure or no visual when chosen in privacy settings).	

All visuals will be deleted or anonymised after 14 days. All the personal data (other than visuals) will be deleted when the resident ends the use of the Nobi-lamp and the profile of the resident on the Nobi platform is erased. The processed data is kept up to date since all visuals are deleted after 14 days, and the Time view accurately reflects what occurs in reality. Incorrect or outdated data are deleted, corrected or updated. If the resident does not want his/her personal data to be processed by the Nobi-lamp, a functionality in the Nobi-platform is available to delete the profile of a resident (privacy by design). If no consent is given by the resident (or the legal representative) to use the Nobi-lamp, in that case, no profile of the resident will be created on the Nobi platform. It is possible that the Nobi-lamp or certain functionalities cannot be used if no consent is given, or only to a limited extent (lights function). Use purposes The personal data will not be used after the end of the licensing agreement. The personal data is not used for profiling.	
Is the data accurate and kept up to date?	
Describe what steps are taken to ensure the quality of the data. Need confirmation here of who will check the data is accurate and what process is in place to ensure the data is kept up to date. Accuracy – 2 organisations processing the same data – confirmation needed of who updates the data, who will have the one true record, which one will be incorrect and therefore will need putting right – what is this overall process to ensure all parties have accurate data? If the nature of the relationship of processing is Data Controller to Data Processor, then the Data Controller needs to confirm the process for this for the Processor within a Data Processing Agreement. To ensure the quality of the data in the Nobi project, several steps are taken: 1. Accuracy and updates: ○ Personal data is kept accurate and up to date. Any inaccurate data is deleted, corrected or updated promptly to ensure the reliability of the information. ○ All visuals are deleted after 14 days to ensure there are no outdated visuals. Additionally, it is the caregiver's responsibility to update any information entered in the resident's profile field if it is no longer applicable. 2. Data minimisation:	Quality of data Personal data shall be accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that personal data that are inaccurate, having regard to the purposes for which they are processed, are erased or rectified without delay (‘accuracy’). See Art. 5.1 d) of [GDPR]

○ Only the necessary personal data is processed, reducing the risk of handling excessive or irrelevant information. This includes minimising the amount of data collected and ensuring it is directly relevant to the purposes of the project. ○ There are only a limited number of input fields available on the platform, ensuring that, through privacy by design, it is not possible to use the Nobi platform as a data repository. 3. Data validation: ○ Data entered into the system is validated (first by the Nobi-lamp than the Nobi-expert) to ensure it meets the required standards and formats. This helps in maintaining the consistency and accuracy of the data. 4. Regular audits and reviews: ○ Regular audits and reviews of the data processing activities are conducted to identify and rectify any issues related to data quality. This includes checking for data accuracy, completeness, and consistency. 5. User training: ○ Staff members involved in data processing are trained on data quality principles and practices. This ensures they understand the importance of maintaining high data quality and are equipped with the skills to do so. ○ Nobi provides training materials and sessions to the care homes using the Nobi-lamps. 6. Data correction mechanisms: ○ Mechanisms are in place to allow data subjects to request corrections to their data. This ensures that any errors identified by the data subjects themselves can be promptly addressed. ○ The process can be easily initiated by sending an email to Nobi's support system. The Nobi team will promptly handle the correction of the resident's profile and ensure that all personal data is accurate on the Nobi platform and servers. 7. Automated quality checks: ○ Automated systems and tools are used to perform quality checks on the data. These tools can identify anomalies, inconsistencies, and errors, allowing for quick resolution. 8. Data Governance Policies: ○ Comprehensive data governance policies are implemented to oversee the management of data quality. These policies outline the procedures and responsibilities for maintaining data quality throughout the data lifecycle. By implementing these steps, the Nobi project ensures that the data processed is accurate, reliable, and fit for its intended purposes.	
What is the storage duration of the data?	
Explain why the storage durations are justified by legal requirements and/or processing needs.	Storage Durations

Ideally there will be a list here of all the data assets being processed, how long they will be held for, where the timescales have come from (i.e, Information Governance Alliance code of practice for records management). This should be stated for each organisation that holds the data.

The storage durations detailed below are justified based on several key factors, particularly in the context of compliance with data protection regulations.

1. Legal and regulatory requirements:
    - Certain types of data must be retained for specific periods to comply with legal and regulatory obligations.
2. Contractual obligations:
    - Data needs to be stored for the duration of the contract or between Nobi, the care home and the resident.
3. Operational needs:
    - Data is often retained to support ongoing operational needs. This includes ensuring continuity of care, maintaining accurate records for future reference, and supporting the functionality of the Nobi system.
4. Data subject rights:
    - Retaining data for a certain period allows data subjects to exercise their rights, such as accessing their data, requesting corrections, or obtaining copies of their records.
5. Risk management:
    - Storing data for a defined period helps manage risks associated with data loss, breaches, or inaccuracies. It ensures that data is available for audits, investigations, or legal proceedings if needed.
6. Business continuity and disaster recovery:
    - Data retention policies will support business continuity and disaster recovery plans by ensuring that critical data is available to restore operations in the event of a disruption.
7. Data minimisation and deletion:
    - Justifying storage durations also involves ensuring that data is not kept longer than necessary. Once the retention period expires, data will be securely deleted or anonymised to minimise the risk of unauthorised access or misuse.

The personal data is retained on the Nobi-platform and consequently on the Nobi servers:

Data / description (detail list see above)	Retention period
Identification data	Until end of licence agreement (for use of the platform with which a user interacts with the Nobi-lamp).

Storage duration must be defined for each type of data and justified by the legal requirements and/or processing needs. Thus, a distinction is made between common data and archived data, to which access will be limited to only the stakeholders concerned. An erasure mechanism must be implemented to archive common data or purge archived data at the end of their storage duration. Functional traces will also have to be purged, as will technical logs which may not be stored indefinitely

Records Management Code of Practice for Health and Social Care 2021: https://www.nhsx.nhs.uk/information-governance/guidance/records-management-code/

Identification details care giver	Until end of licence agreement or caregiver is replaced (before end of licence agreement) by the caregiver.		
Visual	The visuals taken by the Nobi-lamp are stored locally in the lamp itself for 30 seconds. Only if, following analysis by the processor in the Nobi-lamp, a fall incident is detected and the fall is not verbally rejected, a notification is sent to the designated contact person, whether or not (depending on the privacy settings chosen) accompanied by the (stick figure) visual. If it is chosen to send the visual (full or stick figure) with the notification in the event of a fall incident, it will be retained for a maximum of 14 days. If the Live view is chosen to be enabled, all visuals throughout the day/night are converted into stick figure visuals locally in the Nobi-lamp and the stick figure visuals are stored on the platform for up to 14 days. The Live view function automatically turns itself off once a person is in bed.		
Sound material (verbal rejection or confirmation of a fall)	Until end of licence agreement.		
Electronic identification and location data (app or website use)	Described in detail in Nobi's cookie policy.		
Patterns on movement (in/out of room or in/out of bed or fall/no fall) / movement in house	Until end of licence agreement.		
Health data, sensitive data, data of a personal nature, physical data, personal characteristics (i.e. all data entered into the platform to complement the user's profile)	Until end of licence agreement.		
Housing characteristics (room number, one of double occupancy)	Until end of licence agreement.		

Content added into the platform by the user (or the person who was authorised to access the user profile)	Until end of licence agreement.		

CONTROLS TO PROTECT THE PERSONAL RIGHTS OF DATA SUBJECTS

This part allows you to demonstrate that you are implementing the necessary means to enable the persons concerned to exercise their rights.

How are the data subjects informed of the processing?	
Describe what information is given to the data subjects and what are the means to do it.	Informing data subjects Ensure that the subjects are informed. Confirm that the processing is not covered by an exception and is not subject to specific conditions.
In here you would expect that privacy notices are made available to the data subjects and information and advice, perhaps even leaflets, about how data subjects can access privacy notices. Copy of privacy notice to be attached and review required for any none nhs specific privacy notices to ensure compliance with dp law Transparency principle – demonstrating – privacy notices required Note- The privacy policy that must be presented to the user of the Nobi lamp is that of the data controller, namely the care home Before the resident is onboarded and the Nobi-lamp and the platform are put into use, a leaflet and privacy policy shall be made available and permanently accessible in the online environment of the Nobi platform that provides all details about the Nobi-lamp, the platform and the associated data processing activities and their purposes, including the following information: • Contact details of the data controller and the Data Protection Officer. • Categories of data processed. • The purposes and means of the processing. • The legal grounds for processing. • Third parties, service providers / processors processing the data (besides Nobi). • The retention periods. • The rights of the data subjects.	

If consent is your lawful basis how is the consent of data subjects obtained?	
Describe the controls intended to ensure that users' consent has been obtained.	Definition: consent Any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her. See Art. 4.10 of [GDPR] Principle: Consent Allow data subjects to make a free, specific and informed choice. Determine whether the processing relies on a legal basis other than consent pursuant to Art. 6 of the [GDPR]
If consent is not your legal basis, then this should say not applicable. If consent is the legal basis, then this should advise how the consent is obtained, what information is given to the data subject when obtaining consent about what data will be used and for what purpose, how the consent is recorded and what information is given to the data subject about how they can withdraw their consent. If Consent – where does it come from? How is it stored? To ensure that users' consent has been obtained in the Nobi project, several controls are implemented: 1. Clear and detailed information: ○ Users are provided with clear, detailed information about the data processing activities. This includes the types of data collected, the purposes of processing, how the data will be used, and who will have access to it. This information will be included in a consent form. 2. Informed consent: ○ Consent is obtained in a manner that ensures users are fully informed. This means that users are made aware of all relevant details before they give their consent. The information provided is easy to understand and free from technical jargon. 3. Freely given consent: ○ Consent is obtained without any form of coercion or undue pressure. Users will have the genuine choice to consent or not, and their decision will be respected. 4. Affirmative action: ○ Consent is obtained through a clear affirmative action by the user. This will be through signing a consent form. Consent must first be obtained directly from the resident after thoroughly informing the resident about the working of the Nobi lamp. If the resident is deemed legally incapacitated, meaning the person is no longer able to independently make legally valid decisions, consent must be sought from their guardian or legal representative. If neither is available, consent must be obtained through the care giver, who will coordinate with the appropriate authorities. ○ Consent is obtained directly from the resident or their legal representative. If the resident is unable to consent, the caregiver coordinates with the appropriate authorities. The consent process is documented, and residents can withdraw consent at any time by contacting Nobi's support team. 5. Documentation and record-keeping: ○ Records of consent will be maintained to demonstrate compliance. The care home will keep a physical copy of the consent, and the consent will be logged in the profile of the resident on the Nobi platform. 6. Right to withdraw consent:	

○ Users are informed of their right to withdraw consent at any time. The process for withdrawing consent is made simple and accessible, ensuring that users can easily change their preferences if they choose to do so. The process can be easily initiated by sending an email to Nobi's support system. The Nobi team will promptly handle the deletion of the resident's profile and ensure that all personal data is removed from the Nobi platform and servers. This process is also described in the privacy policy of Nobi. 7. Regular reviews and updates: ○ Consent processes will be regularly reviewed and updated by the Data Processing Officer at Nobi, to ensure they remain compliant with legal requirements and best practices. This includes updating consent forms and privacy policies as needed. 8. Training and awareness: ○ Staff involved in obtaining consent will be trained on the importance of informed consent and the procedures for obtaining and documenting it. This ensures that all personnel understand their responsibilities and can effectively communicate with users. Nobi provides training material for the care homes. The person in charge of the care home is responsible for properly scheduling and making available all training materials provided by Nobi. By implementing these controls, the Nobi project ensures that users' consent is obtained in a manner that is compliant with data protection regulations and respects the rights and preferences of the users.	
How can data subjects exercise their rights of access and to data portability?	
Describe the controls intended for enabling data subjects to access, receive and transmit their data. Need confirmation in here that all data controllers involved in the project have local processes in place to respond to data subjects' individual rights requests – remember to check whether the right applies based on the legal basis being used. All Nobi users will have the right to obtain confirmation from the data controller as to whether or not their personal data is being processed. If their data is being processed, they have the right to access the personal data, and the information described in Article 15 of the GDPR. This includes details about the purposes of processing, the categories of data processed, the recipients of the data, and the storage duration.	Right of access The data subject shall have the right to obtain from the controller confirmation as to whether or not personal data concerning him or her are being processed, and, where that is the case, access to the personal data and the information described in Art. 15 of [GDPR Right to data portability The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, see Art. 20 of [GDPR]
How can data subjects exercise their rights to rectification and erasure?	

Describe the controls intended for enabling data subjects to rectify and erase their data.	Right to rectification The data subject shall have the right to obtain from the controller without undue delay the rectification of inaccurate personal data concerning him or her. Taking into account the purposes of the processing, the data subject shall have the right to have incomplete personal data completed, including by means of providing a supplementary statement. Right to erasure The data subject shall have the right to obtain from the controller the erasure of personal data concerning him or her without undue delay and the controller shall have the obligation to erase personal data without undue delay, see Art. 17 of [GDPR]
Need confirmation in here that all data controllers involved in the project have local processes in place to respond to data subjects' individual rights requests – remember to check whether the right applies based on the legal basis being used. Rights of Accuracy – Who's responsibility is it to check and ensure the data is rectified? This should be within the Privacy Notice To enable data subjects to rectify and erase their data, the following controls will be implemented: 1. Right to rectification: ○ Prompt correction: Data subjects will have the right to obtain from the controller the rectification of inaccurate personal data concerning them without undue delay. This includes correcting any errors or inaccuracies in the data. ○ Completing incomplete data: Data subjects will also have the right to have incomplete personal data completed, which can be done by providing a supplementary statement or additional information. 2. Right to erasure (Right to be Forgotten): ○ Immediate erasure: Data subjects will have the right to obtain from the controller the erasure of personal data concerning them without undue delay. The controller is obligated to erase personal data promptly when certain conditions are met, such as when the data is no longer necessary for the purposes for which it was collected, or the data subject withdraws consent and there is no other legal ground for processing. ○ Conditions for erasure: The right to erasure applies under specific conditions, including: ▪ The personal data is no longer necessary for the purposes for which it was collected or processed. ▪ The data subject withdraws consent on which the processing is based, and there is no other legal ground for the processing. ▪ The data subject objects to the processing and there are no overriding legitimate grounds for the processing. ▪ The personal data has been unlawfully processed. ▪ The personal data must be erased to comply with a legal obligation. 3. Local processes for requests: ○ Established procedures: All data controllers involved in the project will have local processes in place to respond to data subjects' individual rights requests. This ensures that requests for rectification and erasure are handled efficiently and in compliance with GDPR requirements. ○ Verification and documentation: Procedures include verifying the identity of the data subject to prevent unauthorised access or changes to personal data. Documentation of requests and actions taken is maintained to ensure accountability and transparency. 4. Privacy Notices:	

○ Transparency: The responsibilities for checking and ensuring the accuracy of data are clearly outlined in the privacy notice provided to data subjects. This notice informs data subjects of their rights and the procedures for exercising them. By implementing these controls, the Nobi project ensures that data subjects can effectively exercise their rights to rectify and erase their personal data, maintaining the accuracy and integrity of the data while complying with GDPR requirements.	
How can data subjects exercise their rights to restriction and to object?	
Describe the controls intended for enabling data subjects to restrict and to object to the processing of their data.	Right to restricting of processing The data subject shall have the right to obtain from the controller restriction of processing, see Art. 18 of [GDPR]
Need confirmation in here that all data controllers involved in the project have local processes in place to respond to data subjects' individual rights requests – remember to check whether the right applies based on the legal basis being used. Can they request to restrict/object even if there are any safeguarding issues/or need to process as part of Direct Care or other legislative requirements? Right to restriction of processing: ○ Request for restriction: Data subjects will have the right to obtain from the controller the restriction of processing under certain conditions, as outlined in Article 18 of the GDPR. This includes situations where the accuracy of the data is contested, the processing is unlawful, the data is no longer needed for processing but required by the data subject for legal claims, or the data subject has objected to processing pending verification of legitimate grounds. ○ Local processes: All data controllers involved in the project have established local processes to respond to requests for restriction of processing. This ensures that requests are handled promptly and in accordance with GDPR requirements. Right to object: ○ Objection to processing: Data subjects will have the right to object to the processing of their personal data at any time, based on grounds relating to their particular situation. This includes the right to object to processing for direct marketing purposes, as well as processing based on legitimate interests or the performance of a task in the public interest. ○ Assessment of Objections: Upon receiving an objection, the data controller must assess whether there are compelling legitimate grounds for the processing that override the interests,	

rights, and freedoms of the data subject, or if the processing is necessary for the establishment, exercise, or defence of legal claims.	
If there is a Data Processor involved, are the obligations of the processors clearly identified and governed by a contract?	
For each processor, describe the responsibilities (duration, scope, purpose, documented processing instructions, prior authorisation) and provide the contracts, codes of conduct and certifications determining its missions and obligations.	Principle: Subcontracting A processing contract must be signed with each processor, setting out all of the aspects stipulated in Art. 28 of the [GDPR]: duration, scope, purpose, documented processing instructions, prior authorisation where a processor is engaged, provision of any documentation providing evidence of compliance with the [GDPR], prompt notification of any data breach, etc. Definition: Processor Natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller, see Art. 4.8 of [GDPR]. The processor and any person acting under the authority of the controller or of the processor, who has access to personal data, shall not process those data except on instructions from the controller, unless required to do so by Union or Member State law, see Art. 29 of [GDPR].
If a data processor is involved, this should fully explain who the processor is and what their role is in relation to the processing. Need confirmation that there is a data processing agreement and/or contract in place between the data controller and the data processor which stipulates what the data processor will be doing with the data. If there is no data processor, then consideration should be made to a data sharing agreement being put in place. For Nobi, the data processor, the responsibilities and obligations are clearly defined and governed by a contract with the care facilities. Here are the key aspects: 1. Duration: ○ The data processing agreement specifies the duration for which Nobi will process personal data on behalf of the care facilities. This duration is typically aligned with the length of the service agreement or contract between Nobi and the care facilities. 2. Scope: ○ The scope of Nobi's responsibilities includes processing personal data necessary for the operation of the Nobi-lamps. This involves collecting, storing, and analysing data to detect falls and notify designated contacts. 3. Purpose: ○ The primary purpose of Nobi's data processing activities is to support the care of vulnerable adults by detecting falls and facilitating timely assistance. This includes improving care quality and communication between residents, family members, and caregivers. 4. Documented processing instructions: ○ Nobi processes personal data strictly according to the documented instructions provided by the care facilities. These instructions are outlined in the data processing agreement and ensure that Nobi's activities comply with data protection regulations. 5. Prior authorisation:	

○ Any engagement of sub-processors or changes to the processing activities require prior authorisation from the care facilities. This ensures that the care facilities maintain control over how personal data is processed and who has access to it. 6. Contracts: ○ A data processing agreement (DPA) is signed between Nobi and the care facilities. This contract outlines the specific responsibilities, security measures, and compliance requirements that Nobi must adhere to. It includes provisions for data protection, confidentiality, and breach notification. 7. Codes of Conduct: ○ Nobi adheres to TSA (Telecare Services Association) codes of conduct and best practices for data protection. This includes implementing robust security measures, maintaining data integrity, and ensuring the confidentiality of personal data.	
In the case of data transfer outside the United Kingdom, are the data adequately protected?	
For each country outside the United Kingdom where data are stored or processed, name it and tell if it is acknowledged as offering an adequate level of data protection or describe the provisions concerning the transfer. This should confirm if any data is being transferred outside of the UK, this includes where servers, for systems being used, are based. If data is being transferred outside of the UK, then strict assurances need to be in place that where the data is being transferred to will meet GDPR compliance and a contract in place. Systems Questionnaire must be completed, if one hasn't been completed already. AWS Nobi's data centre is located in Frankfurt and managed by Amazon Web Services ("AWS") (AWS is affiliated with the US-EU Data Privacy Framework). There is never physical access to these data centres for Nobi employees or partners. Access to the AWS management console is limited to what is strictly necessary. Users are required to use two-factor authentication to maximise protection of their accounts. Access to the virtual servers is also managed through these accounts. Only the IT manager of Nobi has this access. Mailgun Nobi utilises Mailgun, a transactional email API service. Mailgun is used to deliver essential email communications, including notifications and two-factor authentication (2FA) processes. Data through Mailgun is hosted on EU servers (Messages, domain metadata, statistics, routes, IP addresses). Only Nobi's account information, billing details and API Keys are stored globally. EU Model standard contractual clauses between Mailgun and Nobi. https://www.mailgun.com/about/regions/. Twilio	Transfers Depending on the country in question, you will have to justify the choice of remote hosting and indicate the legal supervision arrangements implemented in order to ensure adequate protection of the data subject to a cross-border transfer. That is : - European Union - Country recognised as providing adequate protection by the EU - Transfer to the United States to a company which has joined the Privacy Shield - Other country See art. 44 to 49 of [GDPR]

Nobi leverages Twilio, a cloud communications platform that provides programmable tools for sending and receiving text messages (SMS) and enabling voice calls through its web service APIs. Text messages are used to notify incidents such as a fall or to indicate that an escalation has been closed. Twilio also facilitates voice communication with residents and supports two-factor authentication (2FA) to enhance system security. Message example: “Hello, an escalation has occurred in [Name facility] (Room number X).” On 10 July 2023, the European Commission adopted its adequacy decision for the EU-U.S. Data Privacy Framework (DPF). Twilio has certified to the EU-U.S. Data Privacy Framework (DPF). Infrastructure is hosted in the EU.	

Risks

This section allows you to assess the privacy risks, taking into account existing or planned controls.

Risk Factors to consider:

- Illegitimate access to data;
- Unwanted modification of data
- Data disappearance

PLANNED OR EXISTING MEASURES

This section allows you to identify controls (existing or planned) that contribute to data security.

Note: the data controllers are the care homes therefore these risks should be viewed from the perspective of the care home, as the data controller

EXAMPLE - Linked to Risk Register Information Risks	
Education	Breach of IG policies and guidance due to lack of visibility, communication and training
GDPR	Non-compliant with GDPR implementation
Malware	Threat from malicious links/ attachments
Process	Information is lost/ processed in a non-compliant manner due to gaps in processes and poor controls
Purchasing	Limited governance over low spends allows DPIA process bypass

Sharing	Sharing information inappropriately or illegally due to immature technology or understanding of legislation
Supplier	Suppliers breach Privacy Law due to poor information handling practices/ IT security

EXAMPLE Mitigating Control(s)

Logical Security Control

Encryption	Means implemented for ensuring the confidentiality of data stored (in the database, in flat files, backups, etc.), as well as the procedure for managing encryption keys (creation, storage, change in the event of suspected cases of data compromise, etc.). Describe the encryption means employed for data flows (VPN, TLS, etc.) implemented in the processing.
Anonymisation	Indicate here whether anonymisation mechanisms are implemented, which ones and for what purpose. Remember to clearly distinguish between anonymous and pseudonymous data.
Partitioning	Implementation of data partitioning helps to reduce the possibility that personal data can be correlated and that a breach of all personal data may occur.
Logical Access Control	Methods to define and attribute users' profiles. Specify the authentication means implemented. Where applicable, specify the rules applicable to passwords (minimum length, required characters, validity duration, number of failed attempts before access to account is locked, etc.).
Traceability (logging)	Policies that define traceability and log management.
Archiving	Where applicable, describe here the processes of archive management (delivery, storage, consultation, etc.) under your responsibility. Specify the archiving roles (offices of origin, transferring agencies, etc.) and the archiving policy. State if data may fall within the scope of public archives.
Paper document security	Where paper documents containing data are used during the processing, indicate here how they are printed, stored, destroyed and exchanged.
Minimising the amount of personal data	The following methods could be used: Filtering and removal, reducing sensitivity via conversion, Reducing the identifying nature of data, reducing data accumulation, Restricting data access

Physical Security Control

Operating security	Policies implemented to reduce the possibility and the impact of risks on assets supporting personal data.
Clamping down on malicious software	Controls implemented on workstations and servers to protect them from malicious software while accessing less secure networks.
Managing workstations	Controls implemented on workstations (automatic locking, regular updates, configuration, physical security, etc.) to reduce the possibility to exploit software properties (operating systems, business applications etc.) to adversely affect personal data.
Website security	Implementation of ANSSI's Recommendations for securing websites.
Backups	Policies and means implemented to ensure the availability and/or integrity of the personal data, while maintaining their confidentiality.
Maintenance	Policies describing how physical maintenance of hardware is managed, stating whether this is contracted out. Indicate whether the remote maintenance of apps is authorised, and according to what arrangements. Specify whether defective equipment is managed in a specific manner.
Processing Contracts	Regulate the procurement relations via a contract signed intuitu personæ. - Require the processor to forward its Information Systems Security Policy (PSSI) along with all supporting documents of its information security certifications and append said documents to the contract. Ensure that the measures pursuant to its PSSI comply with the ICO's recommendations in this respect. - Precisely determine and set, on a contractual basis, the operations that the processor will be required to carry out on personal data: 1) The data to which it will have access or which will be transmitted to it. 2) The operations it must carry out on the data. 3) The duration for which it may store the data. 4) Any recipients to which the data controller requires it to transmit the data. 5) The operations to be carried out at the end of the service (permanent deletion of data or return of the data in the context of reversibility then destruction of data at the processor's). 6) The security objectives set by the data controller. - Determine, on a contractual basis, the division of responsibility regarding the legal processes aimed at allowing the data subjects to exercise their rights. - Explicitly prohibit or regulate use of tier-2 processors. - Clarify in the contract that compliance with the data protection obligations is a binding requirement of the contract.
Network security	Depending on the type of network on which the processing is carried out (isolated, private or Internet). Specify which firewall system, intrusion detection systems or other active or passive devices are in charge of ensuring network security.
Physical access control	Policies to ensure physical security (zoning, escorting of visitors, wearing of passes, locked doors and so on). Indicate whether there are warning procedures in place in the event of a break-in.

Monitoring network activity	Monitor intrusion detection systems and intrusion prevention systems in order to analyse network (wired networks, Wi-Fi, radio waves, fibre optics, etc.) traffic in real time and detect any suspicious activity suggestive of a cyber-attack scenario.
Hardware security	Indicate here the controls bearing on the physical security of servers and workstations (secure storage, security cables, confidentiality filters, secure erasure prior to scrapping, etc.).
Avoiding sources of risk	Documentation on implantation area, which should not be subject to environmental disasters (flood zone, proximity to chemical industries, earthquake or volcanic zone, etc.). Specify if dangerous products are stored in the same area.
Protecting against non-human sources of risks	Policies describing the means of fire prevention, detection and fighting. Where applicable, indicate the means of preventing water damage. Also specify the means of power supply monitoring and relief.

Organisational Control

Organisation	Specify whether a person is responsible for the enforcement of privacy laws and regulations. Specify whether there is a monitoring committee (or equivalent) responsible for the guidance and follow-up of actions concerning the protection of privacy.
Policy	Set out important aspects relating to data protection within a documentary base making up the data protection policy and, in a form, suited to each type of content (risks, key principles to be followed, target objectives, rules to be applied, etc.) and each communication target (users, IT department, policymakers, etc.).
Managing Privacy risks	Policy describing processes to control the risks that processing operations performed by the organisation pose on data protection and the privacy of data subjects (building a map of the risks, etc.)
Integrating privacy protection in projects	Existence of a policy designed integrate the protection of personal data in all new processing operations.
Managing personal data violations	Existence of an operational organisation that can detect and treat incidents that may affect the data subjects' civil liberties and privacy.
Personnel management	Existence of a policy describing awareness-raising controls are carried out with regard to a new recruit and what controls are carried out when persons who have been accessing data leave their job.

Relations with third parties	Existence of a policy and processes reducing the risk that legitimate access to personal data by third parties may pose to the data subjects' civil liberties and privacy.
Supervision	Existence of a policy and processes to obtain an organisation able to manage and control the protection of personal data held within it.

Severity Definitions

Severity	Description
Minimum Impact	Data subjects may encounter significant inconveniences, which they will be able to overcome despite a few difficulties Examples : - physical : minor physical ailments (minor illness due to disregard of contraindications), defamation resulting in physical or psychological retaliation, etc. - material : Unanticipated payments (fines imposed erroneously), denial of access to administrative or commercial services , Receipt of unsolicited targeted mailings likely to damage the reputation of data subjects, etc. - moral : minor but objective psychological ailments, feeling of invasion of privacy without irreversible damage, intimidation on social networks, etc.
Some Impact	Data subjects may encounter significant consequences, which they should be able to overcome albeit with real and serious difficulties Examples: - physical : serious physical ailments causing long-term harm (worsening of health due to improper care, or disregard of contraindications), iteration of physical integrity for example following an assault, an accident at home, work, etc. - material : misappropriation of money not compensated, targeted, unique and non-recurring, lost opportunities (home loan, refusal of studies, internships or employment, examination ban), loss of housing, loss of employment, etc. - moral : serious psychological ailments (depression, development of a phobia), feeling of invasion of privacy with irreversible damage, victim of blackmailing, cyberbullying and harassment, etc.
Serious Harm	Data subjects may encounter significant, or even irreversible, consequences, which they may not overcome Examples : - physical : long-term or permanent physical ailments, permanent impairment of physical integrity, death - material : financial risk, substantial debts, inability to work, inability to relocate, loss of evidence in the context of litigation, loss of access to vital infrastructure (water, electricity), etc. - moral : long-term or permanent psychological ailments, criminal penalty, abduction, loss of family ties, inability to sue, change of administrative status and/or loss of legal autonomy (guardianship), etc.

Likelihood Definitions

Likelihood	Description
Remote	It seems difficult for the selected risk sources to materialise the threat by exploiting the properties of supporting assets (e.g.: theft of paper documents stored in a room protected by a badge reader).
Reasonable Possibility	It seems possible for the selected risk sources to materialise the threat by exploiting the properties of supporting assets (e.g.: theft of paper documents stored in offices that cannot be accessed without first checking in at the reception).
More Likely than not	It seems extremely easy for the selected risk sources to materialise the threat by exploiting the properties of supporting assets (e.g.: theft of paper documents stored in the public lobby).

Risk Mapping

Severity of Impact				
	Serious Harm	Low Risk	High Risk	High Risk
	Some Impact	Low Risk	Medium Risk	High Risk
	Minimum Impact	Low Risk	Low Risk	Low Risk
		Remote	Reasonable Possibility	More Likely than not
		Likelihood of Harm		

Definitions

Encryption

Measure making personal data unintelligible to anyone without access authorisation (symmetric or asymmetric encryption, use of public algorithms known to be strong, authentication certificate, etc.).

Anonymisation

Process removing the identifying characteristics from personal data. To assess the robustness of an anonymisation processes, see the WP29 guidelines.

Pseudonymisation

Processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person. Pseudonymisation reduces the linkability of a dataset with the original identity of a data subject; as such, it is a useful security measure but not a method of anonymisation.

Data partitioning

Data organisation methods that reduce the possibility that personal data can be correlated and that a breach of all personal data may occur. For instance, by identifying the personal data useful only to each business process and logically separating them.

Logical access controls

Means implemented to limit the risks that unauthorised persons will access personal data electronically, it requires among other things to:

- Manage users' profiles by separating tasks and areas of responsibility (preferably in centralised fashion) to limit access to personal data exclusively to authorised users by applying need-to-know and least-privilege principles.

- Withdraw the rights of employees, contracting parties and other third parties when they are no longer authorised to access a premises or a resource or when their employment contract ends.

Password

Passwords shall be composed of a minimum of eight characters; must be renewed if there is the least concern that they may have been compromised and, possibly, periodically (every six months or once a year) and must include a minimum of three of the four kinds of characters (capital letters, lower case letters, numerals and special characters); when a password is changed, the last five passwords may not be reused; the same password should not be used for different accesses; passwords should not be related to one's personal information (including name or date of birth.). Define a maximum number of attempts beyond which a warning is issued, and authentication is blocked (temporarily or until it is manually unblocked).

Authentication

Every person with legitimate access to personal data (employees, contracting parties and other third parties) should be identified by a unique identifier. Choose an authentication method to open sessions that is appropriate to the context, the risk level and the robustness expected. Recommendations: if the risks are not elevated, a password may be used; however, if the risks are higher, use a one-time password token but change the default activation password, or, when part of the password is sent by SMS, a card with a PIN code, an electronic certificate or any other form of strong authentication.

Surveillance

Set up a logging architecture to allow early detection of incidents involving personal data and to have information that can be used to analyse them or provide proof in connection with investigations.

Archiving

Procedures preserving and managing the electronic archives containing the personal data intended to ensure their value (specifically, their legal value) throughout the entire period necessary (transfer, storage, migration, accessibility, elimination, archiving policy, protection of confidentiality, etc.).

Filtering and removal

When data are being imported, different types of metadata (such as EXIF data with an image file attached) can unintentionally be collected. Such metadata must be identified and eliminated if they are unnecessary for the purposes specified.

Reducing sensitivity via conversion

Once sensitive data have been received, as part of a series of general information or transmitted for statistical purposes only, these can be converted into a less sensitive form or pseudonymised. For example:

- if the system collects the IP address to determine the user's location for a statistical purpose, the IP address can be deleted once the city or district has been deduced
- if the system receives video data from surveillance cameras, it can recognise people who are standing or moving in the scene and blur them
- if the system is a smart meter, it can aggregate the use of energy over a certain period, without recording it in real time

Project Management

Measures taken to integrate the protection of personal data in all new processing operations (trusted names, guidelines, methodology for risk management or other internal methodology).

Personal data breach

Breach of security leading to the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data transmitted, stored or otherwise processed.

Reducing the identifying nature of data

The system can ensure that:

- the user can use a resource or service without the risk of disclosing his/her identity (anonymous data)

- the user can use a resource or service without the risk of disclosing his/her identity, but remain identifiable and responsible for this use (pseudonymous data)
- the user can make multiple uses of resources or services without the risk of these different uses being linked together (data cannot be correlated)
- the user can use a resource or service without the risk of others, third parties in particular, being able to observe that the resource or service is being used (non-observability)

The choice of a method from the list above must be made on the basis of the threats identified. For some types of threat to privacy, pseudonymisation will be more appropriate than anonymisation (for example, if there is a traceability need). In addition, some threats to privacy will be addressed using a combination of methods.

Reducing data accumulation

The system can be organised into independent parts with separate access control functions. The data can also be divided between these independent sub-systems and controlled by each sub-system using different access control mechanisms. If a sub-system is compromised, the impacts on all of the data can thus be reduced.

Restricting data access

The system can limit data access according to the "need to know" principle. The system can separate the sensitive data and apply specific access control policies. The system can also encrypt sensitive data to protect their confidentiality during transmission and storage. Access to temporary cookies which are produced during the data processing must also be protected.

Appendix 8: ICB Initial Comms Onboarding Email

SBFT Communication 1: *Initial Comms Email to Proposed Care Providers & FAQ Document*

Email Subject heading: NHS funded Nobi Smart Lamp Falls detection and prevention Initiative

NHS funded Nobi falls prevention and detection technology initiative for care providers across Lancashire and South Cumbria

Dear [Care Provider],

We have some exciting news to share with you. Your care home has been selected to be part of the innovative Nobi Smart Lamp technology.

Why Nobi Smart Lamps?

The Nobi Smart Lamps https://www.nobi.life/en are designed to provide advanced fall prevention, detection, lighting, and emergency assistance. This technology offers peace of mind for residents, families, and caregivers alike. The technology eliminates unwitnessed falls and significantly reduces long lies after a fall. You can learn more about how it works by watching our explainer video on fall detection and checking out the attached FAQs document.

2 explainer videos on how the smart lamps work:

- Nobi Fall Detection
- Nobi Fall Prevention

Fully Funded Installation and Maintenance: The installation and maintenance of the Nobi Smart Lamps will be funded for selected care providers across Lancashire and South Cumbria for 3 years enhancing the safety and well-being of your residents.

Comprehensive Site Survey: To ensure the Nobi Smart Lamps are perfectly suited to your care facility, the Nobi team and installers Porters Care, will conduct a thorough site survey of your entire home, including ensuite bathrooms. After the survey, you'll receive a detailed report with our recommendations, highlighting the optimal rooms for installation and any areas where the lamps may not be suitable.

Minimal Disruption, Maximum Support: Our installation process is streamlined and divided into cohorts to ensure minimal disruption to your daily operations while providing maximum support.

By participating in this initiative, your care home can demonstrate its commitment to providing exceptional care and ensuring the safety of its residents. As part of the program, you'll also participate in Nobi's independent economic evaluation and provide regular feedback on the technology's impact.

We aim to contact you personally over the coming weeks, but if you're keen to learn more or want to express your interest, please don't hesitate to reach out to us first! 😊

You can contact us using the Team inbox: healthierlsc.digitalregcare@nhs.net ..or contract us directly below

Mazz Akhtar
Sensor Based Falls Technology - Nobi Smart Lamps Project Manager
murriam.akhtar@nhs.net
Mobile: 07563 963 392

Linda Scales
Sensor Based Falls Technology Project Officer
linda.scales@nhs.net

Appendix 9: ICB financial agreement for providers

Digitising Social Care (DiSC) Financial Agreement

This agreement is between the Lancashire and South Cumbria Integrated Care Board, Digitising Social Care Team (DiSC) and [care home name].

The initiative includes provision of the devices; 3 years licence costs; training; installation and ongoing supplier support for the duration of the grant. After three years the care home will have the option to renew the monthly subscription licence, at a cost of £10.00 (excl. VAT) per resident, per month.

[Care home name] shall participate in the Sensor Based Falls Technology (SBFT) initiative by agreeing to have Nobi and Nobita smart lamp technology installed at [care home address], in line with the agreed timelines.

The Digitising Social Care Team will fund a total of [insert allocated number] Nobi ceiling pendants and [insert allocated number] of Nobitas. These will be installed in the resident rooms identified by Porters Care and [care home name].

A 3-year grant of [insert grant value] shall be paid to the care home via the LCC Supplier number.

Porters Care will invoice the care/nursing home within 7 working days of receipt of the grant. [Insert care home name] will pay Porters Care in line with the terms and conditions outlined in the Sales Contract.

[Care Home name] will provide the DiSC team with a monthly monitoring report for up to a year after installation using an online questionnaire. In addition, and on request, provide the DiSC team with additional information such as pre and post smart lamp implementation satisfaction and/or good news stories to assess the effectiveness of the devices and the programme.

Signed on behalf of [care home name] by the Care Home Manager:

Name:

Signature:

Date:

Signed by the care home owner:

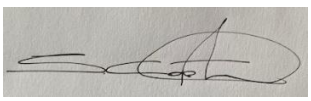
Name:

Signature:

Date:

Signed on behalf of the Digitising Social Care (DiSC) Team:

Name: Sue Capstick

Signature: 

Date:

Appendix 10: Standard operating procedure for monitoring and managing Nobi lamp statuses at installation stage

NHS Lancashire and South Cumbria Integrated Care Board

Standard Operating Procedure (SOP) for Monitoring and Managing Nobi Lamp Statuses at Installation Stage including ongoing monitoring.

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1. Purpose

To outline the procedures for monitoring and addressing lamp statuses (Green, Amber, Red) in care provider location care provider locations during the installation stage and, once the lamps are in live mode all ongoing monitoring to ensure safe and functional operation

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2. Scope

This SOP applies to all personnel involved in monitoring and maintaining lamp systems in care provider location care provider locations, specifically personnel from Nobi and Porters Care.

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3. Threshold Classification for Lamp Statuses

Defines the criteria for each status threshold to guide actions based on lamp performance:

- **Green Threshold**
    - **Status**: **GREEN**
    - **Performance Level**: Averaging **99% connectivity and above consistently over a 7 day period**
    - **Description**: Lamps in the Green threshold are fully operational with optimal performance. No action is required.
- **Amber Threshold**
    - **Status**: **AMBER**
    - **Performance Level**: Averaging **98.9% - 97% connectivity consistently over a 7 day period**
    - **Description**: Moderate performance drop. Requires monitoring and remote troubleshooting to return to Green status.
- **Red Threshold**
    - **Status**: **RED**
    - **Performance Level**: Averaging **96.9% and Below connectivity or hardware offline consistently over a 7-day period**
    - **Description**: Significant performance issue or potential non-functionality. Immediate action required, and the Care provider location must activate their continuity plan until resolved.

Final edition approved by the ICB on 03/12/2024

4. Responsibilities

- **Nobi**: Perform regular connectivity checks with Porters Care, assist in remote troubleshooting, monitor resolved cases for 7 days, and communicate hardware issues to Porters Care.
- **Nobi: Inform L&SC ICB on a monthly basis at the Nobi Programme Assurance meeting of any care providers identified with lamps exceeding the red or amber thresholds. This includes summary of actions to resolve the issue.**
- **Porters Care**: Conduct on-site visits for hardware-related issues, assist with network issues including remote troubleshooting in collaboration with Nobi and care provider location personnel.
- **Care provider location**: Implement their continuity plan as needed, stay informed of lamp statuses, and report any issues or planned maintenance that can affect the lamps to Nobi or Porters Care as per instructions provided.

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5. Procedure

5.1 Installation Stage and Initial Checks

- Care provider locations with lamps in the **Red threshold** at the installation stage:
    - Will **not go live** until any necessary remedial work has been completed.
    - Remedial work will be assessed and handled on a **case-by-case** basis.
- **Nobi and Porters Care** will conduct **weekly connectivity checks** and generate a report for L&SC monthly Assurance meetings by exception only
    - The exception report will highlight actions only for care provider locations with lamps in Amber or Red statuses.

5.2 Lamp Status Monitoring and Incident Management

- **Weekly Checks**:
    - Nobi will perform weekly connectivity checks and generate reports for sharing with L&SC ICB as required.
    - Only care provider locations with issues (Amber or Red status) will have actions recorded and reported.
- **Amber Status**:
    - **Action**: A ticket is created by Porters Care, and the issues will be addressed, monitored and resolved by Nobi or the care provider

- **Remote Resolution**: If the issue can be resolved remotely, Nobi/Porters Care will take action and monitor the lamp for the next 7 days.
- **Ticket Closure**: The ticket will be closed once the lamp returns to consistent Green status connectivity

- **Red Status**:
  - **Immediate Action**: A ticket is created, and the Care provider location is notified to activate their continuity plan.
  - **Remote Resolution**: If possible, Nobi/Porters Care will attempt a remote resolution and monitor the lamp for 7 days.
  - **Hardware Issue**:
    - Nobi informs Porters Care if the issue is hardware-related.
    - **Porters Care** will arrange an on-site visit to resolve or replace the faulty unit.
  - **Network Issue**:
    - Nobi/Porters Care will collaborate with the Care provider location to identify any network changes and assist in troubleshooting.
  - **Ticket Closure**: The ticket will be closed once the lamp returns to consistent Green status connectivity.

5.3 Red Status Contingency Measures

- For lamps entering the **Red threshold**:
  - Nobi system informs by the Care provider location of an issues by Care provider location, the care provider location must then **activate their continuity plan** until the lamp can safely return to live status.
  - A Red threshold scenario is expected to be rare, only likely to occur with a sudden hardware failure or a network failure at the care provider location.

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6. Recovery Phase Protocols

- During the recovery phase, the response level will remain consistent with those detailed above in either Red or Amber status, with the aim to support care provider locations in maintaining all lamps within acceptable thresholds.
- Care provider locations are briefed on using technical alerts during the configuration and go live meetings, reporting issues and following their **business continuity plan** for any arising issues.

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7. Reporting and Communication

Final edition approved by the ICB on 03/12/2024

- Care provider locations receive technical alerts and instructions on who to contact (Nobi or Porters Care) in case of lamp issues (within the config meeting).
- **Porters Care** will continue to provide support as per their **Service Level Agreement (SLA)** with the Care provider location.

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8. Documentation and Record-Keeping

- All tickets will be generated and tracked in **Zendesk**, ensuring accurate documentation of reports, actions, and resolutions.
- This documentation process should follow internal procedures to maintain accountability and traceability of all actions taken.

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9. Revision and Review

- This SOP will be reviewed periodically to ensure it remains up-to-date and effective in addressing the needs of care provider locations and maintaining lamp functionality.

Appendix 10: Standard Operating procedure for conducting a site survey for Nobi Lamp installation

Standard Operating Procedure (SOP) for Conducting a Site Survey for Nobi Lamp Installation for the L&SC project

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1. Purpose

This SOP outlines the process for conducting a thorough site survey at a committed CQC registered care provider location care provider to gather all necessary details for the installation of Nobi Lamps. The survey ensures that each room is assessed for suitability and identifies any challenges or requirements for installation.

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2. Scope

This SOP applies to all personnel conducting site surveys in all committed CQC registered care provider location care provider where Nobi Lamps have been specified for the ICB L&SC project.

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3. Responsibilities

Surveyor: (Porters Care or Nobi)

- Conducts a detailed assessment of the site, ensuring all necessary data is collected via Pro-Forms.
- Ensures accurate measurement and documentation of all room-specific and site-wide parameters, including WiFi strength, speed, and physical installation requirements.
- Highlights any unique installation challenges or considerations for follow-up.
- Submit a copy of the site survey overview to the care provider and send for approval of the ICB.

Site (committed CQC registered care provider **Care provider):**

- **Provide Access:**
    - Where possible care provider building maintenance, accompany Surveyor
    - Ensure all areas of the care provider is accessible during the scheduled survey, including rooms where Nobi Lamps will be installed.
- **Facilitate Information Sharing:**
    - Share relevant site details such as room assignments, housing unit names, floor plans (if available) and department designations.
    - Where practicable, provide information about electrical setups, switches, and additional controls in rooms where lamps will be installed.
- **Assist with Network Details:**
    - Offer details about the Wi-Fi infrastructure, including the location of routers and known network issues.

- **Engage Key Staff:**
    - Make a designated contact person available during the survey to address questions or provide clarifications about site-specific configurations.

- **ICB**
    - To consider the recommendation made by Porters Care/ Nobi to decide which rooms are best suited for the Nobi lamps to be installed
    - To approve or reject the recommendation by Porters Care/ Nobi
    - To confirm with the care provider which rooms will be suitable for Nobi lamps to be installed.

---

4. Procedure

4.1 Preparation Before Site Visit

1. **Confirm Survey Details**:
    - Schedule the visit with the care provider.
    - Ensure access to all rooms where required/practicable.
2. **Gather Equipment**:
    - Laptop, tablet, or smartphone with access to Pro-Forms for data collection.
    - WiFi strength and speed testing tools. (Ubiquity Wifiman Wizard recommended)
    - Measuring tools for ceiling height and room dimensions.

4.2 Conducting the Survey

Step 1: General Site Survey

- Conduct a walkthrough of the entire care provider to familiarise yourself with the layout.
- Identify key areas where lamps can be installed and note any general observations that may impact installation.

Step 2: Room-by-Room Assessment

- For each room, use the **Pro-Forms application** to record the following details systematically:

Parameter	Details to Capture
1. Room Type	Record the room's specific type within the care provider.
2. Housing Unit Name	Note the name of the housing unit the room belongs to.
3. Department	Record the department the room belongs to (e.g., Residential, Nursing).

Parameter	Details to Capture
4. WiFi Strength	Measure and record WiFi signal strength at the intended installation point. Use thresholds: **- Green**: Above -67 dBm - Amber: -67 dBm up to -70 dBm - **Red**: Below -67 dBm (requires intervention or room will be excluded on discussion W/ICB).
5. WiFi Speed	Measure and record WiFi speed (upload and download) at the potential installation point. **Excellent** - DL/UP - 10+ - Green **Good** - DL/UP - 5 - 10Mb - Amber **Poor** - DL/UP - 0 - 5Mb - Red
6. Switches in Room	Count the number of electrical switches in the room, specifying their location and type.
7. Additional Controls	Identify any additional control factors, such as: - Controlling an extractor fan - Additional lights on the circuit - Other unique electrical considerations.
8. Multi-Person Room	Indicate whether the room is for multiple occupants. If yes, specify the number of occupants and any special considerations for lamp placement.
9. Ceiling Type	Note the type of ceiling (e.g., plasterboard, suspended, concrete).
10. Ceiling Height	Measure and record the height from the floor to the ceiling to ensure the lamp will be at the optimum height.
11. Lighting Location	Check whether the existing lighting is centrally located or offset, and note its positioning.
12. General Notes	Record any additional observations about the room that may affect installation (e.g., obstructions, unusual layouts).
13. IT Notes	Record any IT-related notes, such as: - Availability of network hardware - Existing configurations - Potential challenges or queries to follow up with the IT team.

4.3 Post-Survey Activities

1. **Data Compilation**:
    - Data will automatically be pushed to Zendesk via **Pro-Forms**, ensuring a structured and centralised record of all collected information.

- Nobi and Porters Care will review the form entries for accuracy and completeness.

2. **Follow-Up**:
    - Porters care will address any unresolved IT questions with the care provider's IT team.
    - Highlight any identified challenges or special requirements for installation.

3. **Report Submission**:
    - Nobi and Porters Care will give recommendations based on all rooms looking at the viability to the care provider.
    - Nobi and Porters Care will provide this information to the installation team
    - Submit the completed survey report, including all data from Pro-Forms, to the relevant stakeholders, including the installation team and IT department.
    - ICB will speak with the care providers to inform them of the outcome of the site survey and highlight which rooms are not suitable for installation.

---

5. Notes and Reminders

- Ensure all data is entered directly into **Pro-Forms** during the survey to minimise errors and maintain consistency.

NHS
Lancashire and South Cumbria
Integrated Care Board

Sensors Based Falls Prevention Project

Frequently Asked Questions

Intro

Lancashire and South Cumbria ICB is funding a large-scale rollout of Sensor-Based Falls Prevention technology to support care providers to:

- reduce falls
- respond quickly and more efficiently to those that occur

In this document you will find answers to common questions.

1. What is the aim of the project?

The goal is to reduce

- the frequency of falls
- the severity of falls
- unwitnessed falls

Fall Detection - The Nobi light alerts carers immediately when a fall occurs, ensuring help arrives within three minutes.

Fall prevention - Nobi allows staff to review events leading to falls, helping prevent future occurrences.

Aimed results

- Fewer ambulance call-outs
- Fewer hospital admissions
- Reduction of long lies
- Significantly improved outcomes

2. What technology is being used?

Nobi Smart Lights

https://www.nobi.life/en_GB

1.Fall Detection

Smart AI-lights that **detect falls** and ensure quick assistance by alerting carers. The Nobi light reliably recognises falls, allowing care staff to focus on other tasks while being confident they will be alerted in an emergency.

2. Fall Prevention

Automated lighting

At night this prevents disorientation and ensures people can find their way when waking up and going to the bathroom.

Monitoring functions

When residents get out of bed or leave their room, Nobi notifies caregivers, enabling them to offer proactive assistance and prevent falls.

Fall Analysis

If a fall occurs, Nobi provides caregivers with (anonymised) images of a fall, allowing them to identify the cause to prevent future falls.

3. **Smart, future-proof care**

Including sleep analysis and night vigilance.

3.What is the difference between Nobi & Nobita?

Nobi

- Nobi is a state-of-the-art falls detection & prevention light
- Designed for bedrooms, in care providers
- Capable of monitoring spaces up to 8m x 8m.

Nobita

- Nobita, a smaller version of Nobi
- Designed for compact spaces like bathrooms.
- Capable of monitoring spaces up to 8m x 8m.
- While both lights detect falls, only Nobi can produce an abstract image.

4. Who provides the Nobi lights?

Porters Care

The fulfilment of this contract is being carried out by Nobi's platinum UK partner, Porters Care.

Porters Care and Nobi will work closely together to implement, support and manage the systems over the three-year period.

www.porterscare.co.uk

5. What will this cost me?

- The project is fully funded by the Integrated Care Board for 3 years from the installation date. This includes the hardware support for the Nobi system for the full 3 years of the contract provided by Porters Care.
- At the end of the initial three-year period the license costs are fixed at £10.00 (ex VAT) per month per room for a further 4 years, based on an initial minimum 12-month contract.
- If the agreement ends and the license is not renewed, residents' data will be archived, and the lamps' smart features disabled. The lamps will still function as regular lights and can be replaced by a standard ceiling lamp at the home's expense.

6. What is the support provided?

The organisation Porters Care will provide full support for the Nobi system for the full 3 years of the ICB funded contract.

In the event of an issue affecting any aspect of the Nobi system including hardware, software, the App and peripherals, Porters Care can be contacted via phone or email: servicedesk@porterscare.co.uk

Any support required due to accidental or misuse of the equipment is not covered by this service level agreement and will be chargeable to the care provider.

Support will be provided via phone, email and when required an onsite visit.

At the end of the initial three-year ICB funded term, an option to extend the support by a minimum of 12 months will be offered under the same terms.

Porters Care will provide the following intervention times:

Incident level	Description	Intervention time
Minor Incident	Loss of some functions affecting a single lamp	The ticket will be assigned to a service desk representative within 24 hours who will manage the incident through to resolution
Medium Incident	Complete loss of fall detection functionality affecting a single lamp	Within 2 Business Days.
Major Incident	Loss of fall detection functionality affecting multiple lamps within a care provider	Within 1 Business Day.
Critical Incident	Loss of all functionality of the lamps across all rooms in a care provider	Within 8 hours

7. How many lamps will we get?

- Each selected property will receive a suitable allocation based on the size of the home to ensure broad access to the technology across Lancashire and South Cumbria ICB.
- The ICB has invested in enough technology for approximately 800 rooms distributed fairly across the Lancashire and South Cumbria ICB
- The grant includes a Nobi lamp for bedrooms and a Nobita lamp for en-suites where applicable.

8. Why has my home been selected?

Each care provider has been selected based on one or all of the following:

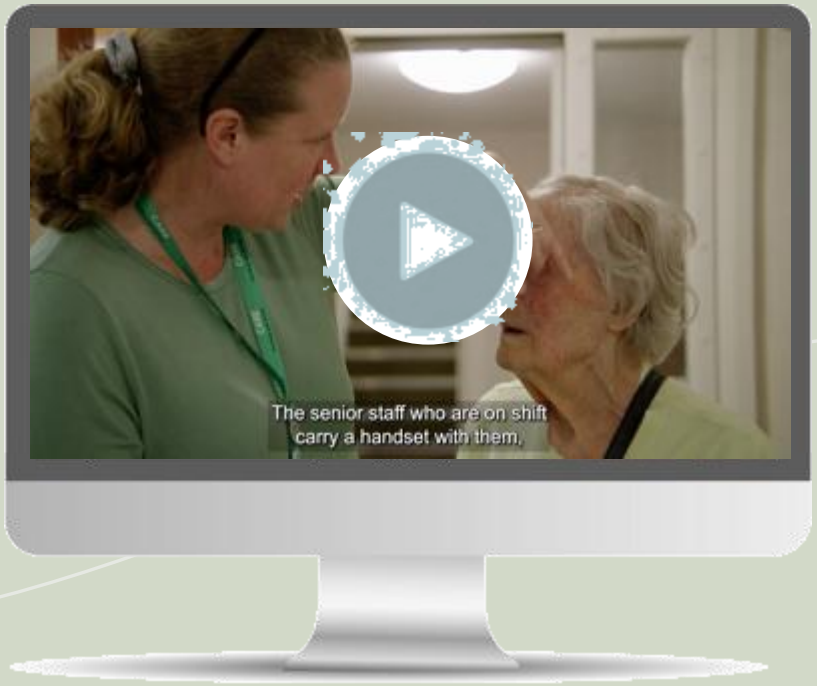
- Falls data collated from North-West Ambulance Service (NWAS) - injurious falls
- Falls Lifting Service - non-injurious falls
- PAMMS - providers quality assurance and monitoring tool
- Recommendations from Local Authority or ICB Adult Social Care Quality Team.

9. Where has this technology been used before?

- The Nobi system is in use **all over the world**
- In use locally at **Elmsdene in Blackpool and Hartland House in Milnthorpe** for the past 12 months.
- Falls have decreased by 84%

84%
less falls

Watch this video
to learn how Hartland House
staff & residents think about Nobi



https://vimeo.com/manage/videos/834057240.

10. What about the onboarding process?

1

Welcome to Nobi!

For a smooth implementation process, we go over the agreements made between you and the Nobi salesperson.

Buyer,
Operations Manager

Online, 0.5h

2

Delivery Nobi lights

3

Getting to know Nobi

We introduce Nobi and its features to your entire project team.

Buyer,
Operations Manager,
Technical Manager,
IT Manager,
Optional third party

At client, 2h

4

Site visit

During a tour through the building, we will review together what is needed for a smooth installation.

Technical Manager,
IT Manager,
Operations Manager

At client, 1h

5

Prepare the installation

Nobi briefly summarises what it takes to smoothly install the smart lights.

Operations Manager

Online, 0.5h

Payment procedure

- ✓ care provider signs & returns commitment form to ICB team
- ✓ care provider signs & returns Financial Agreement to ICB team
- ✓ Grant to be provided to care provider
- ✓ care provider to pay Porters Care

6

Installation Nobi lights

Technical Manager

7

Configuration meeting

Together we go over the possibilities in configuring the smart lights.

Buyer,
Operations Manager,
Technical Manager,
IT Manager,
Optional third party

At client, 2h

8

Prepare fall detection training

Together we will discuss how to best tailor the fall detection training to your team.

Operations Manager

Online, 0.5h

9

Fall detection training

The team learns how to use Nobi's fall detection.

Operation Manager, End-users & care personnel

At client, 2h

10

Ready for launch?

Together, we review whether you are ready for Nobi to go live.

Operations Manager

Online, 0.5h

11

Nobi goes live

Congratulations! Nobi's smart lights are going in use today.

12

Follow-up

For the first two weeks, we will keep a close eye on your lights and make adjustments as needed.

Operations Manager

Online, 2 weeks

13

Smart care training

Now that you've mastered fall detection, we'll introduce you to our other features for smart, future-proof care. Think of fall prevention, sleep analysis or night vigilance.

Operations Manager

Online meeting

11. What will happen on the site visit?

A site visit will be conducted to assess room suitability for the Nobi system. The visit will focus on:

- Room setup (e.g., number of lights, switches, and room dimensions)
- WiFi signal strength (critical element to ensure optimal use of tech)
- Download and upload speeds

To gather this information, a team member will visit each room in the home (or as close as possible). Surveying every room ensures adequate capacity for the assigned lamps, even if changes occur between the audit and installation.

The survey will take approximately 2 minutes per room, and residents are not required to leave their rooms during this process.

Following the survey, the care provider will receive a copy of the survey including a complete list of suitable rooms which will be shared with the care provider and Digital Social Care Team at the ICB. The ICB will liaise with the care provider to discuss the recommended rooms suitable to install the Nobi system. Recommendations to improve WiFi or network speeds will be made if the criteria for a Nobi lamp are not met.

Any necessary upgrades will be the responsibility of the care provider to arrange and fund.

11. What will happen on the day of installation?

- The Porters Care Team will conduct an initial site survey of the care home and install the lights .
- Each room installation takes about 1 hour, during which the resident cannot be in their room.
- After 1 hour of installation, the resident can return to their room and use the new Nobi light as a standard room light.

12. Does the Nobi Smart Lamp adhere to CQC guidance regarding surveillance systems?

- The Nobi Smart Lamp is not a surveillance system and cannot and should not be used as such. The Nobi Smart Lamp has been developed to protect people's safety without restricting their activities and improving their wellbeing and as set out in CQC guidance would be treated as part of their care plan.

- The Nobi Smart Lamp also ensures data is controlled and managed in ways to lessen the impact on people's privacy as per CQC guidance.

Questions or concerns?

Please contact the project team **including the name of your home in the subject line**.

1

L&SC ICB

Mazz Akhtar
Project Manager ICB
murriam.akhtar@nhs.net

Programme Team inbox:
healthierlsc.digitalregcare@nhs.net

NHS
Lancashire and South Cumbria
Integrated Care Board

2

Porters Care

Technology Provider

servicedesk@porterscare.co.uk
0161 676 5241

PC

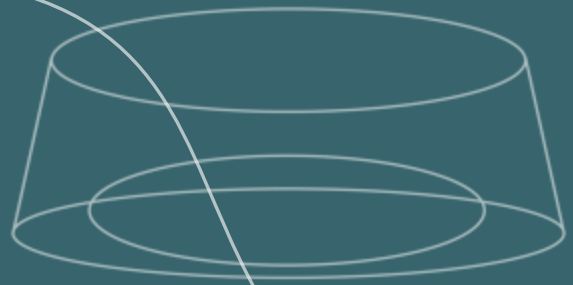
3

Nobi

Customer Support

support@nobi.life

nobi



Take care!

Nobi onboarding process

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Operations Manager

Online, 0.5h

2

Delivery Nobi lights

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Buyer,
Operations Manager,
Technical Manager,
IT Manager,
Optional third party

At client, 2h

4

Site visit

During a tour through the building, we will review together what is needed for a smooth installation.

Technical Manager,
IT Manager,
Operations Manager

At client, 1h

5

Prepare the installation

Nobi briefly summarises what it takes to smoothly install the smart lights.

Operations Manager

Online, 0.5h

Payment procedure

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- ✓ Grant to be provided to care provider
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Operations Manager

Online, 0.5h

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Operations Manager

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Operations Manager

Online, 2 weeks

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Operations Manager

Online meeting

Appendix 14: Porters care sales contract

SALES AGREEMENT

BETWEEN:

1. **Porters Care**, a limited company, having its registered office at Westminster House, 10 Westminster Road, Macclesfield, SK10 1BX and with a Company registration number of 12623842.

AND:

2. **Milton Lodge Rest Home** a company, having its registered office at 35 Mount Road, Fleetwood, FY7 6EX

This Agreement shall commence on the Go Live date and shall expire automatically on the third anniversary of the Go Live Date (the 'Expiry Date'), unless it is extended or otherwise lawfully terminated.

PURCHASE PRICE

Schedule	Quantity
Nobi	
Nobita	
Bluetooth Module	
Kinetic Switch	
Relay	
3 Year Care Membership	
Installation	

Total Cost	
VAT	
Total	

*Set up, training and on-going support is included.

Payment terms are seven days from our invoice date. Porters Care Limited retains ownership of all Lamps until full payment is received. If payment is not made by the due date, Porters may charge default interest of 8% and a lump sum of 10% on all outstanding amounts as of the due date of these amounts, without prejudice to Porter's right to claim compensation for recovery fees or higher damages. All other invoices shall automatically become due by operation of law.

For and on behalf of **Porters Care Ltd**

Name_____

Position_____

Signature_____

For and on behalf of **Customer**

Name_____

Position_____

Signature _____

SPECIFICATIONS OF NOBI-LAMP

- The Nobi-Lamp is a smart elderly care monitoring device: a lamp equipped with computing power, sensors, and communication technology. The Lamp works with infrared, radio frequency and audio-visual detection technology. The Nobi-Lamp can be installed as stand alone or in combination with a Nobita-Lamp that depends on a Nobi-Lamp for its computing power. Detailed info is available on www.nobi.life.

SPECIFICATIONS OF NOBITA-LAMP

The Nobita-Lamp is a smart elderly care monitoring device: a lamp equipped with sensors and communication technology. The Nobita-Lamp depends on a Nobi-Lamp for computing power and cannot be installed as stand-alone. Detailed info is available on www.nobi.life.

DISCLAIMER

- The Lamp is not a medical device nor an accessory for a medical device. The primary function of the Lamp is fall detection.
- The secondary functions of the Lamp are preventing dehydration, pattern recognition, air quality monitoring, intrusion detection and fire alarm.
- The Lamp does not replace or support medication that prevents or reduces the incidents of falls.
- The Lamp is not designed to save lives.
- The Lamp does not eliminate the risk of falling.
- The Customer may not rely solely on the Lamp to limit the risk of the resident falling. The Customer must take additional measures to limit the risk of falls, including removing obstacles in the room.
- If the resident encounters medical problems, the customer must seek further assistance, for example by requesting medical help and/or other care services.
- The Customer may not rely solely on the Lamp to prevent the resident from dehydrating. The Customer must provide sufficient water for the resident, allow them to drink enough, and monitor the room temperature in order to prevent dehydration.
- The Customer may not rely solely on the Lamp for burglary prevention and detection. The Customer must take all necessary security measures against burglary, e.g. the installation and maintenance of access control, locks and camera detection.
- Upon purchasing the Lamp, the Customer must strictly follow the instructions in the user's manual with regard use of the Lamp as well as with regard to interference with other products and/or services.
- If the Customer does not follow the instructions in the user's manual regarding use of the Lamp and the instructions concerning interference with other products and/or services, the Lamp will not function properly.
- When installing and using the Lamp, the Customer must provide correct and sufficient information (e.g. electrical diagrams in the building, defects in the building or its infrastructure). The Customer is solely responsible for the correctness and completeness of the information.
- The Customer must ensure an uninterrupted supply of electricity and a strong and stable Wi-Fi-connection. If the Lamp is not properly connected to the electricity grid and/or the Wi-Fi network, and/or if the electricity grid and/or the Wi-Fi network is/are defective, the Lamp will not function properly. If no Wi-Fi connection is available, the Customer must report this, so that an adapted service can be provided.
- The Lamp is not a substitute for a public emergency service such as 101 or 999.

- If the Customer has any questions or complaints about the Lamp, it can contact. Nobi@porterscare.co.uk

INDEMNITY

Porters Care undertakes to defend the Customer from and against any claim or action that the use of the Lamps infringes the intellectual property rights of a third party and indemnifies the customer from and against any losses, damages, costs (including all legal fees), and expenses incurred by or awarded against the customer as a result of, or in connection with, any such claim.

INTELLECTUAL PROPERTY

- No transfer of ownership will occur for any pre-existing IP rights owned by Nobi or Porters.
- All IP rights in materials (e.g., systems, logos, software, etc.) created by Porters during the agreement will belong to the customer.
- Porters will assign these rights to the Customer, regardless of payment received.
- If third parties assist in creating materials, Porters will ensure they assign IP rights to the Customer.

DATA PROTECTION

Porters Care and Nobi agree to process and manage personal data on behalf of the Customer, ensuring compliance with applicable data protection laws.

- DATA PROCESSING:
  - Porters shall process personal data (including resident health information, staff details, and administrative data) solely for the purpose of providing the contracted service.
  - Porters shall implement appropriate technical and organisational measures to protect the data, including encryption, access controls, and regular security assessments.
- CONFIDENTIALITY:
  - Both parties shall treat all personal data as confidential and shall not disclose it to any third party without prior written consent.
  - Porters shall ensure that its employees and subcontractors are bound by confidentiality obligations.
- DATA BREACH NOTIFICATION:
  - In the event of a data breach, Porters shall promptly notify the Customer, providing details of the breach and any remedial actions taken.
  - The Customer shall cooperate with Porters in investigating and mitigating the breach.
- DATA SUBJECT RIGHTS:
  - Porters shall assist the Customer in responding to data subject requests (e.g., access, rectification, erasure) within the required timeframes.
  - The Customer shall inform the Porters of any such requests received.

Either party may terminate this Agreement with written notice if the other party materially breaches its data protection obligations.

SUPPORT

Porters shall be exclusively responsible for the following support services:

- Provision of a telephone number 0161 676 5341 and of an e-mail service servicedesk@porterscare.co.uk for 1st Line Support services.
- Answering, analysing and solving technical questions and technical problems of the Customers regarding the Products, both online and on-site by a qualified team

- Assistance by a qualified team in solving the questions and problems,
- The provision of online documentation to answer general “how to” and basic technical questions regarding the Products.
- Correction of the Software in the event of problems, whether or not within the framework of an update or an upgrade.

Porters shall provide at the least the following intervention times:

Incident level	Description	Intervention time
Minor Incident	Loss of some functions affecting a single lamp	To be convened with the Customer.
Medium Incident	Loss of fall detection functionality affecting a single lamp	Within 2 Business Day.
Major Incident	Loss of fall detection functionality affecting multiple lamps within a service	Within 1 Business Day.
Critical Incident	Loss of functionality across multiple locations	Within 8 hours.

- Intervention time for a Minor Incident, for a Medium Incident and/or for a Major Incident commences upon registration by Porters of a request by you on the day the registration takes places during Business Hours.
- Intervention time for a Minor Incident, for a Medium Incident and/or for a Major Incident commences on the first Business Day after registration Porters of a request by you if the registration takes places outside of Business Hours.
- Intervention time for a Critical Incident commences upon registration by you of a request via the Helpdesk Number.
- If you contact Porters via the Helpdesk E-mail outside Business Hours Intervention time for a Critical Incident commences at the beginning of the next Business Day.
- Execution of 1st Line Support shall be online or on-site, depending on the nature and the urgency of the incident.
- The intervention times listed shall qualify as obligations of effort and not as obligations of result.
- Porters shall provide 1st Line Support at its exclusive expense and shall not charge anything related thereto to. However, Porters shall be entitled to charge its time, materials and expenses in case the incident concerned was caused by the Customer.
- Porters Care shall not be held responsible for any damage to lamps or associated hardware resulting from misuse, negligence, or actions by residents, visitors, or staff outside the scope of normal use. Any repairs necessitated by such actions, including costs for time, materials, and other expenses, will be charged to the responsible party
- Our call charge for damaged equipment is £180 to include the first 4 hours and 125 miles travel from 127A Buxton Road, High Lane, Stockport, SK6 8DX. Additional time will be charged at £35 per hour, additional miles will be charged at £0.45 per mile and additional equipment will incur extra charges.