

MAY 17 - 19, 2022

MANDALAY BAY | LAS VEGAS, NV

RFID JOURNAL LIVE!

Dementia Safeguarding Scheme- utilizing NFC technology in Policing.

Avon and Somerset Police SERVE.PROTECT.RESPECT.

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Sergeant Stuart King





About me..















Avon & Somerset Policing area:

- Key locations:
 - City of Bristol
 - City of Bath
 - City of Wells
 - Glastonbury Festival





Overview

- In the UK, Dementia is one of the most significant conditions affecting older population
- Predicted estimates:
 - 2025: 1 million+ people
 - 2051: 2 million+ people

850,000

people are estimated to be living with dementia in the UK.

Alzheimer's Research UK

Source: Prince, M et al. (2014) Dementia UK: Update Second Edition report produced by King's College London and the London School of Economics for the Alzheimer's Society



Source: Lewis, F: Estimation of future cases of dementia from those born in 2015 (July 2015); Consultation report for Alzheimer's Research UK



University of East Anglia

Prof Michael Hornberger, from UEA's Norwich Medical School, said: "People with dementia getting lost or going missing is a problem worldwide. Around 70 percent of people with dementia may go missing at least once, with some at risk of going missing multiple times.

"Around 40,000 people with dementia go missing for the first time every year in the UK – and this figure is likely to grow with the projected increase in the dementia population.







Statistical Tables for UK Missing Persons Data Report, 2019/2020

Time series data of missing related reports in England and Wales

Website: missingpersons.police.uk
Contact email: ukmpu@nca.gov.uk

<u>Dementia= 2,158 incidents in 2019/20 which is 2.7% across England & Wales</u>

Estimated Cost of £5,395,000 (\$7,055,581.00) to policing alone!

*(based on average search cost @ £2500)

*https://www.nationalcrimeagency.gov.uk/who-we-are/publications/503-uk-missing-persons-unit-statistics-report-2019-2020-1/file



Leads to demands placed on other services..



















Catalyst which caused me to take a closer look at links with Missing person reports & Dementia...

- A Lady who travelled across city to visit her childhood home that was cleared following bombing during WWII.
- Death of man with dementia struck by train after becoming disorientated
- Personal family diagnosis
- Drive for efficiency and maximising our ability to protect

Poignant memories...





A chance meeting in 2015...

Demand within Avon and Somerset identified...





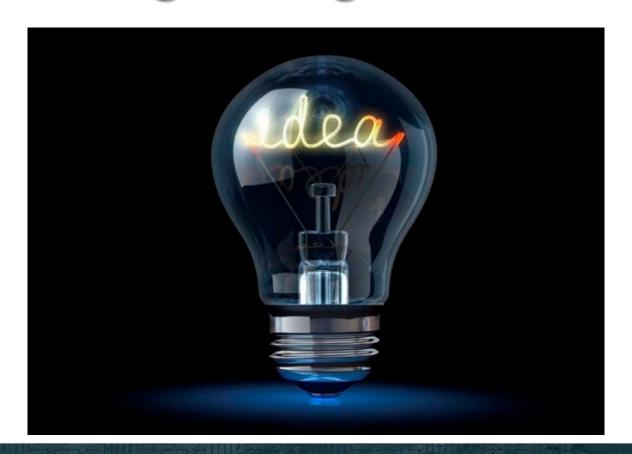


Bristol Dementia Action Alliance Increasing the awareness of Dementia amongst the communities of Bristol

Registered Charity 1167404



Decision to create a bespoke 'Dementia Safeguarding Scheme'.





2015: Dementia GPS Safeguarding scheme born

Key issues

- Funding
- Reputational risk from media
- Longevity of scheme
- Public and charitable support





Response

• Stage 1 (2015-16)

- Funding: Bristol Dementia charity
- 15 devices force-wide for 12 months
- Strict referral criteria: most at risk allocated device
- Designated mailbox for referrals
- Basic GPS pendant monitored by NHS call centre







Continued...

- Formation of forcewide Avon & Somerset Dementia Forum
- New funding stream through PCC community fund





Stage 2 (2017-18)

- New supplier: Bristol Careline
- Doubling devices to 30



- Photograph/description added (with consent) to police intelligence system
- Promotional videos produced, local officers deliver GPS device





Continued...

- GPS device with enhanced features:
 - Geo safe zones
 - Online location access by NOK
 - Reduced demand on police call centre: NOK don't have to wait for missing episode to develop





Assessment



- Year 1 (2015-16) <u>87% success</u> preventing police missing person reports
- Year 2 (2017- 18) 100% success: 0 calls for police assistance
- Wider benefits:
 - Enhanced safeguarding building relations between police and community





• Key driver was the need for a device that was cost effective to safeguard a broader number of people.

Options available were.....



Simple paper ID card perhaps?....





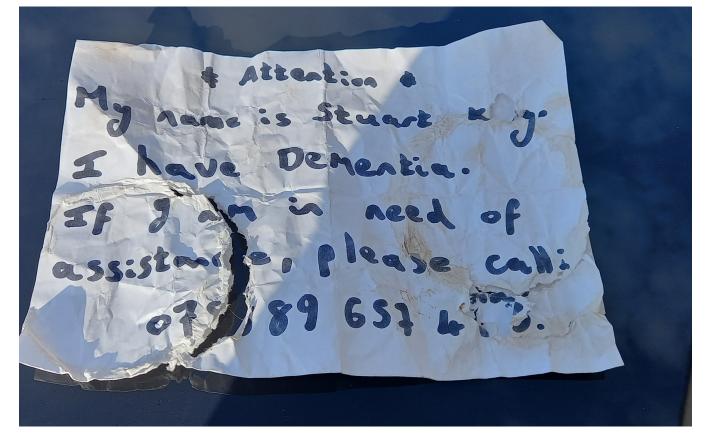




Image credit Google



Paper alert cards can become broken and illegible...



More robust silicone/rubber/metal printed bands maybe?



Medical Bracelet with Engraveable Tag



Deluxe Engraveable Silicone Bracelet BROAD BAND



Medical Flatband (Inside Engraving)



Medical Bracelet with Clasp



Deluxe Engraveable Silicone Bracelet (Inside Engraving)



Slim Traditional Medical ID Bracelet



Sports Bracelet with Engraveable Tag

Image credit Google



...too costly as require bespoke individual production per band.





• Other issues are that they can't be updated and are limited in the information which can be printed.

| Mage credit Google | Mage Cr



Selected NFC as the solution!

Key requirements of an NFC device;

- Obvious in appearance
- Robust
- Waterproof
- Able to hold sufficient information about the wearer
- Able to offer assistance which will safeguard the wearer



Collaboration between Police, Charity & Fire...







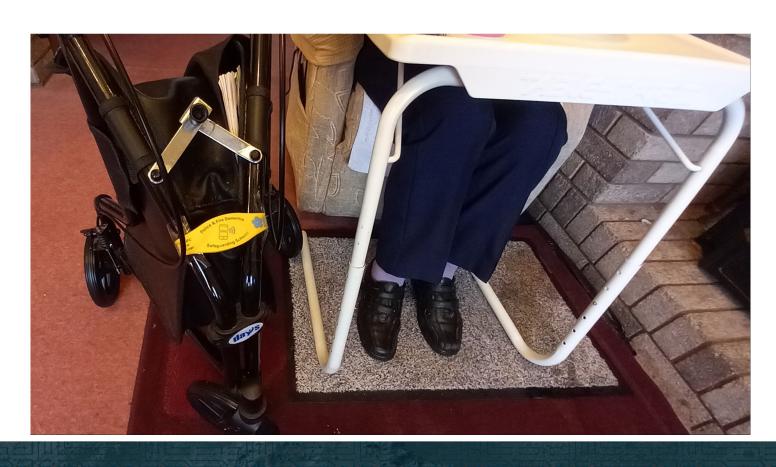






Bespoke "Police & Fire" Wristband created cost was £1.50 (\$1.88).







NFC Assistance Wristbands

- Bright yellow for instant recognition of the scheme.
- Watch strap for application versatility.

- Rubberised for durability and waterproof.
- Embedded NFC chip







NFC Chip spec:

NFC

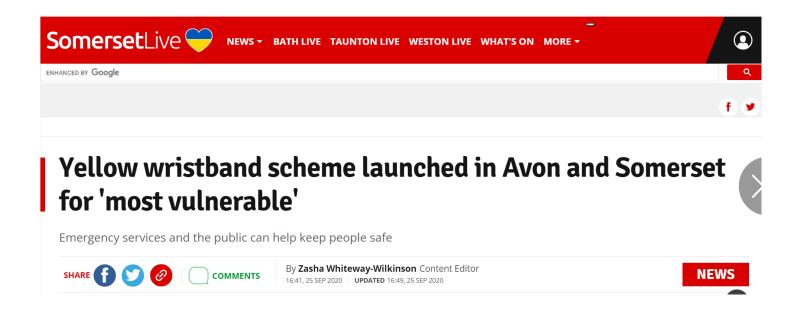
NTAG215 microchip.

Memory of 504 bytes storage of a message up to about 480 characters.

Extremely reliable chip memory retention of at least 10 years.

- Can be written 100,000 times so no worry about erasing or changing the data!
- NFC Forum Type 2 compliant means compatible with all NFC enabled mobile phones.





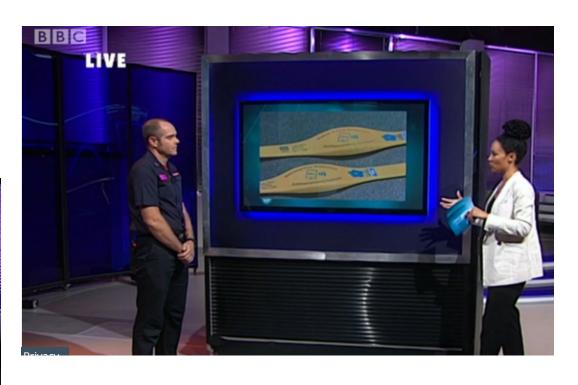
October 2020, 750 NFC wristbands purchased.

 Allocated during home fire safety visits by the fire service in the area of Avon (city of Bristol, Bath and parts of Somerset).

Launched on BBC 1 Crimewatch Show...













www.bbc.co.uk/news/av/uk-england-bristol-55056759



Distribution

• Initial distribution of the first 750 wristbands was via applications to Avon Fire & Rescue for a home safety visit.









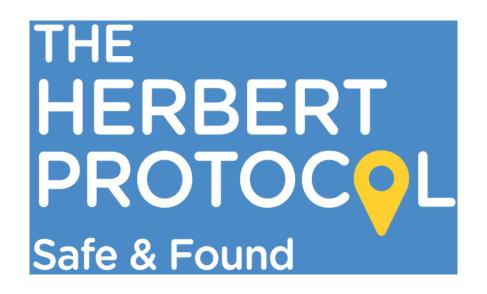
Blockers identified to increased distribution:

• Fire home safety visits not required/wanted by everyone with Dementia.

Only part of the force area covered.

 Herbert Protocol not completed during Fire visit and allocation of wristband.





 The protocol is named after a war veteran of the Normandy landings named George Herbert, who lived with dementia in a care home. Mr Herbert went missing and sadly died while searching for his childhood home.



2021 EXPANSION of the Dementia Safeguarding Scheme





Benefits

• Greater coverage of the entire force area (rather than just the "Avon" area).

 Combined the application for the NFC assistance device with registering for the Herbert Protocol.

 Additional funding obtained which allowed the purchase of a further 2,000 NFC assistance wristbands.

• The increased quantity allowed distribution to support groups, hospitals, charities and other forces wishing to carry out a trial.

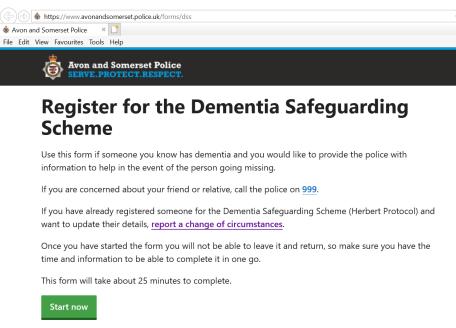




Over 1,500 distributed!



 Applications made via force website via the Herbert Protocol and allocation to groups.





Resulting in over 500 registrations for the Herbert Protocol!







Ali Roper

I got one for a friend of mine who has dementia, she was over the moon to get it and wears it every time she goes out. Thank you A&S 😊

Like Reply





Katie PM a patient today had one of these on and I thought what a good idea! Jenny Slee



24W

Like Reply



Maria Quinnell

I am very grateful for this scheme. My close relative does wear the band, so if they did become lost we can be informed much quicker of their whereabouts without the person having to remember personal information about themselves.

8w Like Reply



Donna Ham

Brilliant. Hope this is the start of other ideas. Well done 9w Like Reply





Helen Sanders
What a brilliant idea and lovely to see the police being pro active with public pafety. Well done.

Ali Roper

I helped a good friend get one as she has the early stages of dementia. It arrived within a week. She never leaves home without it. Thank you

24w Like Reply

Andy Gainey
Brilliant idea. Well done.



Kathy Timbrell

This is such a great scheme I remember when I did community care and I did dementia training there was a case of a guy who went missing with dementia, he had one of these types of bands on and ended up being found in Scotland, I think he had managed to get on a bus and somehow got all the way up there before bands helped find him, I really do believe that all... See more

Jaime Day

We have one for my dad. When he was recently admitted into hospital the doctors and nurses thought it was a fantastic idea.



2022 need for alternative



products

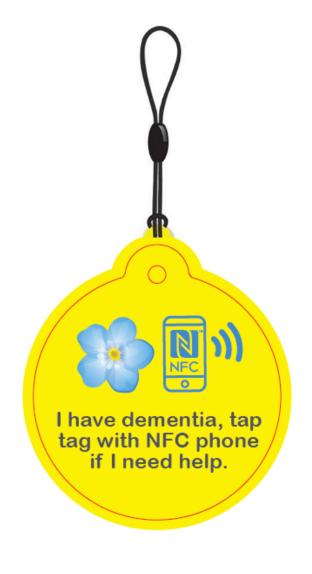
- Feedback regarding original wristband was overall positive but....
 - Some said it was too bulky for small wrists.
 - Wasn't versatile enough for applying to garments, walkers etc.
 - *Too bright* in colour.
 - Was hidden under sleeves and therefore not visible.







Solution='Hangtags'



Sample of feedback...



Sally White

I think the tags are so much better my mum wouldn't wear the bracelet but I would be able to attach the tag to her handbag

6w Like

Reply











Is it possible to have one of the tags Angela Richmond please, we have the wristband,



Kathryn Cleave

My mum wont and doesnt wear the wristband as it's very chunky and she doesnt like it so takes it off constantly.... I've now hidden it into her handbag but the tags would work a lot better for us. Either that or an easier to wear bracelet type wristband that maybe isnt so chunky and stiff to wear... it's too big really particularly for an older lady with small wrists to wear. Thanks.

6w Like Reply



Deb McCormack

Please can I get some more information on how to get the hand tag x 6w Like Reply



750 NFC assistance Hangtags purchased!

Greater versatility

- Bungee strap allows self-attachment via a 'hook over' application.
- Lighter in weight.
- More visible (not hidden beneath clothing etc.)







750 NFC assistance Hangtags purchased!

- Easy to follow messaging to end user.
- Feedback led.
- Cheaper (less than £1) = greater distribution.
- Application to lanyards also made available.





20mm Lanyard









Clear messaging & design.





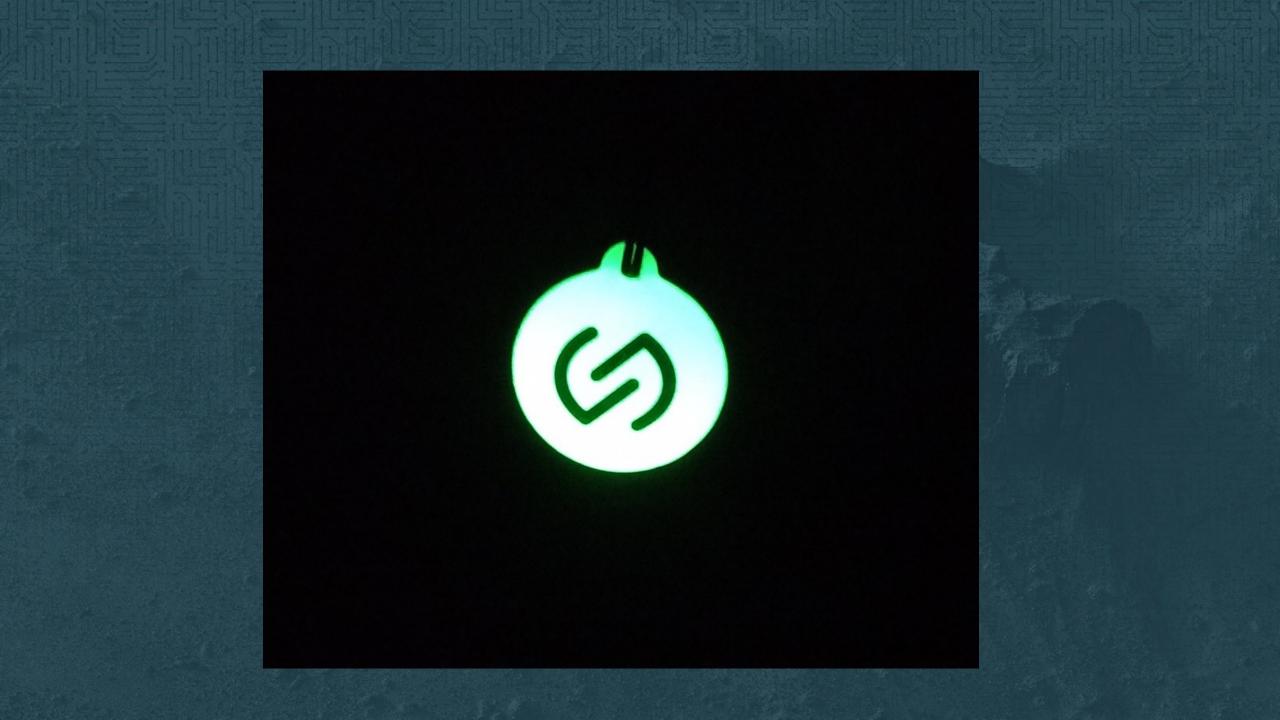
GLOW-IN-THE-DARK 'HANGTAGS'

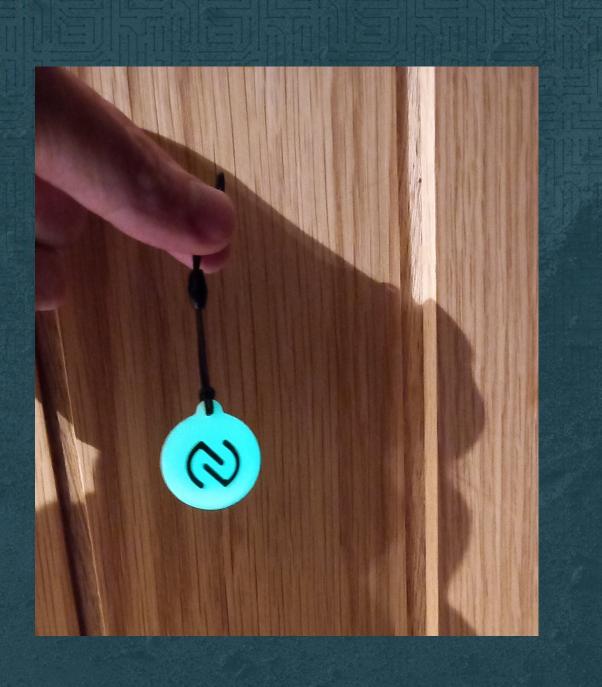
- 250 purchased for trial.
 - Direct result from feedback that some people wouldn't tolerate a bright yellow Hangtag.

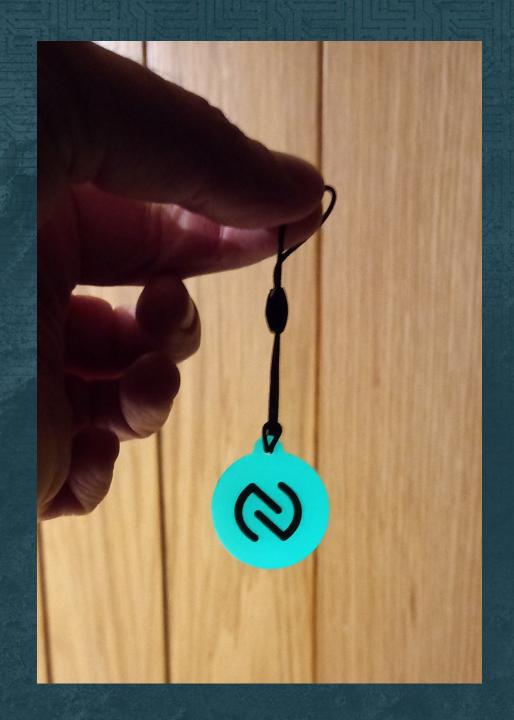


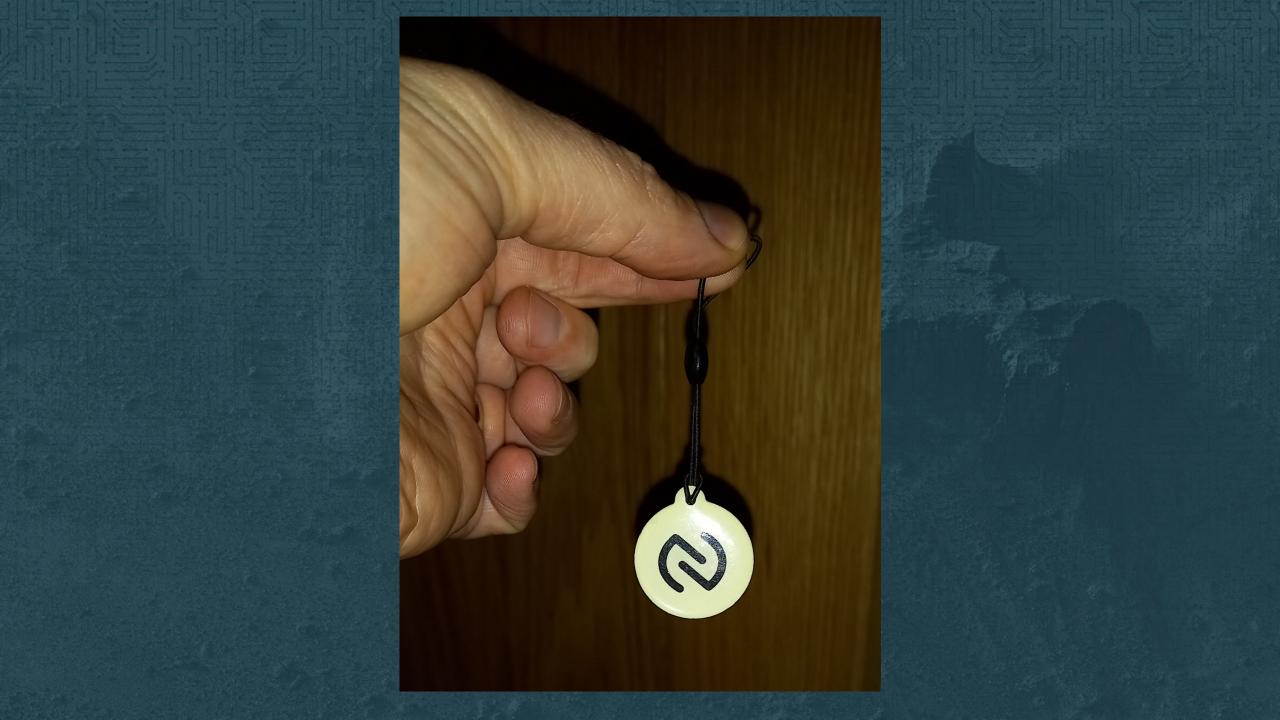
- Less conspicuous off-white colour in day time but which would still stand-out.
- Glow-in-the-dark when in darker conditions, such as entering a shop, building, corridor etc.











More refined



assistance wristband.

Smaller.

• Improved instructions on wristband.

Reduced cost.

 Retaining the fundamentals of the already established "Dementia wristband scheme,"









Avon and Somerset Police





I have dementia, tap flower with NFC phone if I need help.



External Funding received:







GPS Tracking Devices allocated to most atrisk.





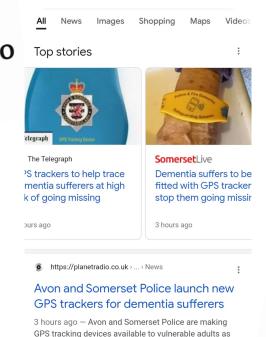
National news as trailblazer...



Vulnerable people with dementia to be offered GPS trackers

13 April





part of a scheme to protect people with dementia





The Future...

Aspiration for NFC and GPS combined device.



Increased distribution.

Greater adoption across Britain.

Formal Academic Assessment.





