Turn passport demand into GS1 adoption.

We help SMEs turn the product data they already hold into a **governed identity built on GS1 standards**. The passport makes adoption accessible. Our connected tools demonstrate why that identity is worth using.

The SME challenge

The full challenge →

Our store analysis found **fewer than 30% had a product identifier**. Passport demand creates a reason to adopt one, but scattered facts and blank forms put the work on the SME.

OUR SOLUTION

A programmatic engine. A smaller job for the SME.

The engine resolves existing data and evidence into a governed product record. It asks only for the gaps. The business reviews and approves.

20+ ways to connect the data a business already holds

70%+ of the textile record resolved before merchant input*

5 remaining questions, rather than 22 blank fields*

How the engine makes it possible

Inside the engine →

01

Connect

Read what already exists.

Ingest catalogues, files and evidence. Bind observations to the correct product, variant and source.

02

Build

Resolve against evidence.

22 textile attribute resolvers and 5,000+ automated tests. Governed calculations retain sources and methods; conflicts and unknowns stay visible.

03

{Activate}

Publish the approved identity.

Publish on dppcode.org ↗ at its GS1 Digital Link, with a 2D code and product data pack for reuse.

One journey. Two linked stages of proof.

Partnership discussion →

01 / PASSPORT ENGINE → GS1 ADOPTION

Bring more SMEs onto GS1 identity

Use our passport engine with up to **20 apparel SMEs**. Measure effort saved and GS1 identities activated.

For GS1: a practical route to SMEs that lack a shared identity. GS1 review → The pilot →

02 / CONNECTED TOOLS → EVIDENCE OF IDENTITY VALUE

What is a GS1 product identity worth to an SME?

ActivateProtect flags unit-level copied-code signals. **ActivateMeasurement** joins e-commerce, offline sales and media. A partner study measures what that shared identity delivers.

Work saved

Time spent matching products and reconciling reports.

Measurement gained

How much sales and media activity can reliably be connected to products.

Commercial value realised

Whether that evidence improves spending decisions and incremental return.

For GS1: evidence that connected identity creates value, giving SMEs a reason to adopt and use GS1 standards. The business case →

Our foundational research & analysis Before the Passport: What Is Product Identity Actually Worth? ↗

*Textile testing with richer records; results depend on source data. Our 22-attribute readiness model is not a final statutory field list. Test basis ↗ · Engine evidence ↗. Passports: live beta. Protect and Measurement: beta. Pilot results remain to be established.

THE BRIEF

Meeting pre-read · 22 October 2026

From product data to governed identity.

GS1 has built the identity and interoperability infrastructure. ActivateDigital is built to help small and growing product businesses adopt it properly and then put it to work, first for Digital Product Passports and then across the rest of the business. The lessons learnt here scale to businesses of every size.

GS1

The foundation

Identifiers, standards, Digital Link and the authoritative services businesses agree on.

→

ActivateDigital

The adoption layer

Turns what an SME already holds into a governed identity it can publish and reuse.

This is a discussion document. It sets out the challenge we've been working on, what we've built and a few ideas for how ActivateDigital might support GS1's infrastructure to create more value for all its users. Every callout links to the research behind it.

In this document

The challenge 03

What we have learnt and built 05

A proposed plan 09

Early engagement 12

Supporting examples 13

01 / THE CHALLENGE

The information usually exists. The authority over it doesn't.

Digital Product Passports give businesses a new reason to organise, evidence and publish product information. For smaller businesses the hard part is rarely that the information is missing.

Product identity for SMEs sits in an online store like Shopify or a marketplace. Composition is in a spreadsheet. Certificates are in a shared drive. Manufacturing detail sits with a supplier. Building a passport is like asking an SME to build its first mini PIM, from scratch. And most start from gaps, often without even a product number like a GTIN: in our study, fewer than 30% had one. The real work is establishing:

Which source is authoritative → What evidence supports it → Which product or variant it applies to →
What can be established → What genuinely remains unknown

> **Start with what the business already has. Establish what can responsibly be established. Ask only for what genuinely remains unresolved.**
>
> The principle behind all of our small-business research.

The test — **How to build a textile Digital Product Passport from just a handful of inputs** — What the engine resolves, what is left to confirm and how we counted the test. →

Research — **Product data and DPPs for small businesses** — Authority over each fact, its scope, its evidence and how it is kept current. →

Research — **How to organise product data without a PIM** — Running product data across Shopify, spreadsheets, shared files and supplier evidence, without enterprise software. →

02 / THE CHALLENGE

The passport is the trigger. Product identity is the infrastructure.

We don't think businesses should adopt a product identity because they have to. They should adopt one because they can see the return.

1 Reuse

The case starts when the work done for the passport leaves behind a persistent, governed identity that can be reused. The evidence for that is strongest where a stable identity is connected to governed data and real workflows:

GDSN pilot · Geisinger Health ↗

52 hours
<1 hour

to map, match and load 36 products from several suppliers through one source.

NHS Scan4Safety · six trusts ↗

140,000 hours

of clinical time released, with nearly £5m recurrent and £9m non-recurrent inventory savings.

Leeds Teaching Hospitals ↗

8.33 days
<35 min

average time to recall a product.

And the reverse: eMAG found 80,000 products carrying the same invalid GTIN and a further 200,000 identifier conflicts. These are outcomes of identity combined with scanning, connected data and changed workflows, not DPP return claims.

Evidence review **Before the passport: what is product identity actually worth?**
Every figure above, with its source and what it does and doesn't prove. →

2 Scale

The case gets stronger again when the same identity is deployed across every touch point the product meets: the retailer, the partner and life after the sale. This is where our Deploy programmes are in beta:

Measurement · Beta

Data → sales

Product, passport, retail, media and sales data joined on the same identities, to test whether better product data changed the outcome.

Partner Hub · Closed beta

1 link

Launching with a retailer? Partners see the current approved data and pack, and you decide who sees what.

Lifecycle · Closed beta

Launch → recall

The identity stays useful after launch, through updates, repair, resale and recall.

These show what the identity enables, not measured results. The use cases we'd suggest looking into are in section 09.

> **Establish the identity once. Govern it properly. Then reuse it wherever the product needs to be recognised.**

03 / WHAT WE HAVE LEARNT AND BUILT

What we learnt from textiles

Textiles is where we've done most of our testing. Six things stood out, and each one links to the research behind it.

01

Most stores start without a product identifier.

Fewer than 30% of the Shopify textile stores we've analysed had a product code like a GTIN. And a passport needs three identifiers, while most catalogues hold one. For many SMEs the passport is the first time a GTIN, a SKU and a barcode have to mean different things.

02

Stores hold a handful of facts, not a passport.

A typical store holds only a handful of usable product attributes. With a GTIN and fibre composition among them, the engine takes a product to 17 of the 22 attributes in our textile readiness model after a single answer, leaving five questions. The steps are in section 05. What a Shopify catalogue already answers.

03

The same field name doesn't mean the same thing.

A Shopify material field and a regulatory fibre composition describe different objects. Composition has four rules and two tolerances, and when a lab and a supplier disagree, the law decides which one wins.

04

Completeness is the wrong target.

A record can be 95% complete and still miss the facts that block a release. Only a few facts change a business decision, and identity comes first because everything else depends on it.

05

The evidence is often already there.

A tech pack can seed much of the record, but not every value in it is proof. Knowing what each certificate, declaration and test report is worth matters more than collecting more of them.

06

Structure the record before granularity is settled.

Whether a textile passport sits at model, batch or item level isn't decided yet, and that's exactly where GS1 Application Identifiers come in. So the record has to hold product, variant, batch and item without hard-coding the answer.

Example

An annotated textile passport

Row by row: what resolved, what didn't and why. →

04 / WHAT WE HAVE LEARNT AND BUILT

What we've built: the first programmatic Digital Product Passport resolution engine in the category

Form-based · user-led

```
FORM → USER INPUT → PASSPORT
```

ActivateDigital · data-led

```
DATA + EVIDENCE → RESOLVE() → GOVERNED PRODUCT TRUTH → PASSPORT
```

ActivateDigital takes the product information and evidence a business already holds and turns it into a governed, persistent product identity. The engine does the work. The business reviews and approves it.

01

Connect

Shopify, WooCommerce, ERP, PIM, PLM, spreadsheets, certificates, images, supplier files and GTINs.

02

Build

Resolve the governed record. Keep provenance, surface conflicts and leave unknowns explicitly unknown.

03

Activate

Publish a persistent identity and passport at its GS1 Digital Link, with a 2D carrier.

Then

Deploy

Reuse the same identity across the business instead of rebuilding the product each time.

Live beta today: uploads, and textile and battery passports published on dppcode.org. Shopify app: live in October. WooCommerce launches in November 2026. Deploy programmes are in beta.

Live

See a passport: Organic Cotton Crew Tee

A demonstration passport published on dppcode.org. Identity, materials, footprint, compliance and care, plus the GS1 data pack and linkset. Scan it or open it.

Product — **See ActivateDigital** — The journey, live. →

Method — **Our public methodology** — How evidence is chosen and conflicts resolved. →

05 / WHAT WE HAVE LEARNT AND BUILT

Six questions away from all 22.

One textile product on a typical store, against the 22 attributes in our textile readiness model.



6 — **Already in the store**

GTIN, model and variant, fibre composition, country of origin, weight and care instructions. Facts most stores publish anyway.

11 — **Established by the engine**

Operator identity and address from the store's own legal pages. Commodity code, recycled content and conformity status derived from the fibre and the product type.

15 — **Calculated by the engine**

Carbon, water, durability and microfibre shedding, calculated from the fibre and weight using regulatory models.

17 — **One answer**

"No substances of concern above 0.1%." That settles substances of concern and the SCIP reference together.

22 — **Five questions**

Production facility, recyclability route, repair route, safety certificates and EPR registration. Asked once in plain language, never as blank fields.

The 22 are our own tracking set rather than a statutory field list. Which store facts are present varies by store. Recycled content resolves from the fibre statement only when it names recycled fibre, otherwise it joins the questions.

06 / WHAT WE HAVE LEARNT AND BUILT

Where ActivateDigital could support GS1

GS1 is the core infrastructure for identifying, capturing and sharing product information at scale. We don't want to rebuild any of that. We'd hope to be a layer that helps SMEs adopt it faster, and deeply enough to use it every day.

GS1	**Identity and standards** GTINs, Application Identifiers, Digital Link, carriers, GTIN verification and the partner ecosystem.
ActivateDigital	**Adoption and application** Connects what the SME holds, governs it, activates it on GS1 identity and keeps it useful.
SMEs	**Compliance, trade and value** Passports, retailer and marketplace data, measurement, life after the sale and partner exchange.

Today, for many SMEs

"I have a product code already."

→

What we'd hope could become normal

"My code only worked on one marketplace. A GS1 GTIN lets my product travel anywhere, carry a passport and show what it's worth."

Today, for many SMEs

"I joined GS1 because I needed barcodes to sell my products."

→

What we'd hope could become normal

"My products are correctly identified, governed and resolvable, and that identity now works across my business."

15 min per product, per year. That's all a GS1 membership has to save to pay for itself, before the identity does anything for a passport.

GS1 UK's entry plan is £50 a year excluding VAT for 10 GTINs, for businesses with turnover up to £99,999. At £20 an hour of owner or staff time, that's 2.5 hours a year, or 15 minutes per product.

One retailer onboarding or one avoided marketplace re-listing usually covers it. Google Merchant Center treats a changed product ID as a new product, with up to three business days to re-approve and its history lost. Everything a passport adds comes on top.

A rough illustration for discussion, not a return claim. Sources: GS1 UK membership ↗ and Google Merchant Center ↗.

Research

Product identity: where to start and what it unlocks

How a GTIN, store SKU, ERP and PIM identity coexist around one governed relationship. →

07 / A PROPOSED PLAN

Foundation: building on GS1 correctly from the outset

If we're going to help thousands of businesses use GS1 identity, the implementation has to be right first. This is where we'd most value GS1's guidance, so we're fully aligned to the standards.

Identity	**GTIN, variants, hierarchy and item level**
Link	**Digital Link, AIs, qualifiers and resolver behaviour**
Carrier	**QR, Data Matrix and the move from 1D to 2D**
Verify	**GTIN Check and authoritative product data**
Approve	**Conformance, acceptance and product approval**

We've researched these as separate layers rather than treating barcode, GTIN, Digital Link, resolver and passport as one thing. We'd also welcome guidance on which GS1 services belong inside our production architecture rather than building alternatives, starting with the GS1 UK GTIN Check API, and the right technical and commercial model as volumes grow:

Development → Pilot → Growing adoption → **Large catalogue scale**

A question we'd value GS1's view on

If ActivateDigital is going to help thousands of smaller businesses implement GS1 identity correctly, what should we build around now?

Research	**GS1 Digital Link: what it is and how it carries a passport** Identifier, URI, carrier and resolver, kept apart.	→
Research	**GS1 Application Identifiers in a passport** GTIN, batch and serial, without overstating what's required.	→

08 / A PROPOSED PLAN

Prove: making SME adoption measurable

~20 A suggestion: a small group of GS1 apparel SMEs using their own live catalogues, by upload to ActivateDigital or through Shopify or WooCommerce. The passports they publish would be theirs to keep, with GTINs provided where needed.

For each business we'd propose measuring:

01 What the business already held

02 What ActivateDigital could establish

03 What needed the merchant or a supplier

04 How much human effort remained

05 What the resulting governed identity can support

The most useful businesses are the ones that haven't already been through a large DPP or product-data programme. That's where the evidence matters most, for both of us.

> A question worth answering together
>
> **How hard does implementing the next generation of GS1-enabled product identity actually need to be for a small product business?**

Research **Digital Product Passport readiness for small businesses**
Held, in a document, with a supplier or unknowable: four states, four different actions. →

Supporting examples: see the business appendix ↗

09 / A PROPOSED PLAN

Suggested use cases to look into

Five stories we don't think have been told yet, which we could look into together. In order of where we think the value is.

01 **A measured SME return**

Healthcare has hard numbers. Small businesses have anecdotes.

How: Improve identity and data on half of a small range, then measure listing approvals, conversion and returns against the other half, using the GTIN as the join.

Beta ActivateMeasurement →

02 **After the barcode**

Member stories end at "got GTINs, got listed".

How: Follow a group of apparel members from the GTINs they hold to a governed, published record, measuring what they held, what the engine established and what effort remained.

Live The proof in section 08 →

03 **One identity, many channels**

Today's stories are single-channel: a QR on pack, or a listing on Amazon.

How: One governed record feeds Shopify, a marketplace, a retailer feed and the passport, and a single change reaches all four.

Closed beta Partner Hub →

04 **Life after the sale**

Almost no UK case shows resale, repair or returns running on the same identity, least of all for small brands.

How: The passport's Digital Link carries the product into repair, resale and returns, so each event adds to its history instead of starting a new record.

Closed beta Lifecycle →

05 **AI-ready product identity**

No story yet shows a small brand's product reaching AI shopping assistants intact.

How: Publish governed facts at the product's Digital Link in a form AI agents can read, so an assistant answers from the brand's record, not a guess.

Closed beta When an AI answers for you →

We're looking to build these betas with partners as well as for SMEs. GS1 ecosystem partners might find them interesting, as new commercial uses for capabilities they already sell, on identity that's already moving through the GS1 ecosystem.

Supporting examples: see the partner appendix ↗

10 / EARLY ENGAGEMENT

What we'd hope to start on

Not everything above needs an answer now. If the session gave us a steer on even one or two of these, that would be a great outcome.

Validate

A standards check

GS1's view on what we should validate or change, and what it would want to see from us next.

Enable

The right GS1 services

A first view on GTIN verification and API access; Digital Link and 2D; the right partner route.

Prove

A small proof

Whether a modest group of apparel members testing the model on their own data would be worthwhile, and how GS1 would want it run.

Connect

A sense of where it could go

GS1's view on which kinds of partner, if any, might be worth a conversation once there's evidence.

THE SHARED OPPORTUNITY

GS1 built the foundation businesses agree on. We help SMEs put it to work.

James Bradley · Founder, ActivateDigital.ai
hi@activatedigital.ai

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APPENDIX A

Illustrative apparel and retail businesses

Illustrative only. These show the kind of organisation we have in mind, not a list of introductions we're asking for. GS1's partnerships team is far better placed to judge where, if anywhere, a conversation would be worthwhile.

Apparel members GS1 UK already features

Sloobie Skiwear

Website
GS1 UK story

Why it's a good test

A small, fashion-led base-layer brand that joined GS1 UK to get into retail. A clean founder-led catalogue.

What's in it for them

A real passport and readiness picture built from the catalogue they already have, with no data project.

Calla Shoes

Website
GS1 UK story

Why it's a good test

Grew from start-up to selling in 60+ countries and credits GS1 identifiers for its overseas sales.

What's in it for them

Extends an identity it already trades on into a governed record that travels with it into every market.

Benchmarks already on the DPP journey

Loake Shoemakers

Website
GS1 UK insight

Why it helps

Already preparing passports on QR codes powered by GS1. A benchmark rather than a cold start.

What's in it for them

A way to reuse the identity it has built beyond the passport, through Deploy.

Filippa K

Website
GS1 news

Why it helps

Launched traceable wool garments on QR with GS1 Sweden. Shows a sophisticated implementation to learn from.

What's in it for them

Tests whether existing traceability can feed wider reuse rather than another standalone passport.

Shopify pre-test stores in the GS1 UK community

Only Curls

Website
GS1 UK story

Why it helps

Started on a £100 Shopify store and joined GS1 for GTINs. Haircare, so a pre-test of the app on a store GS1 knows.

What's in it for them

Sees what its own Shopify data already establishes, before its category's passport rules arrive.

Glow For It

Website
GS1 UK story

Why it helps

A GS1 UK member selling on Shopify. Beauty, so a second non-apparel pre-test.

What's in it for them

A governed record of its range that it can reuse with retailers and marketplaces.

A thought: if a proof like this were useful, GS1 UK would know far better than us which members might enjoy taking part, ideally businesses with a live store and GTINs that haven't yet run a DPP programme. Apparel membership starts at £50 a year, so the pool of genuinely small businesses is large.

APPENDIX B

Illustrative ecosystem partners

Illustrative only. These show the kind of organisation we have in mind, not a list of introductions we're asking for. GS1's partnerships team is far better placed to judge where, if anywhere, a conversation would be worthwhile.

Measure · retail, POS and marketplace outcomes

	Why the fit is strong	What's in it for them
Sparkle CS Website GS1 UK profile	GS1 approved, bringing Digital Link barcodes into existing point-of-sale systems.	A natural Measurement beta: it brings the retail event, we bring the governed identity and the test design.
Rich Insight Website GS1 UK profile	GS1 partner running marketplace listings, optimisation and reporting across 150+ marketplaces.	Evidence that better governed product data changes marketplace outcomes, which strengthens its own content work.

Partner Hub · product data exchange

	Why the fit is strong	What's in it for them
1WorldSync Website GS1 UK profile	GS1 approved GDSN data pool and product-content network: 14,000+ companies in 60+ countries.	An upstream source of governed, evidenced records from SMEs it rarely reaches, feeding syndication rather than competing with it.
AdvanceFirst Technologies Website GS1 UK profile	GS1 approved EDI provider with around 300 clients in 20 countries.	Better product truth entering the trading-partner flows it already runs.
First B2B Website GS1 UK profile	GS1 partner whose business is managed electronic exchange between suppliers and customers.	Extends its exchange with a governed product-information layer around every relationship.

If a small start were ever useful: one partner of each kind, for example Sparkle CS, 1WorldSync and Rich Insight, would cover most of these use cases: retail event, product data and marketplace, all around one activated identity.

Thesis
The programmable product
What becomes possible when software can read a product. →

Research
Product data syndication and retailer feeds
Why one governed record never means one identical payload. →