



The digitally verifiable Global Mark of Trust™





Believes there are...

Two critical things a brand must create.

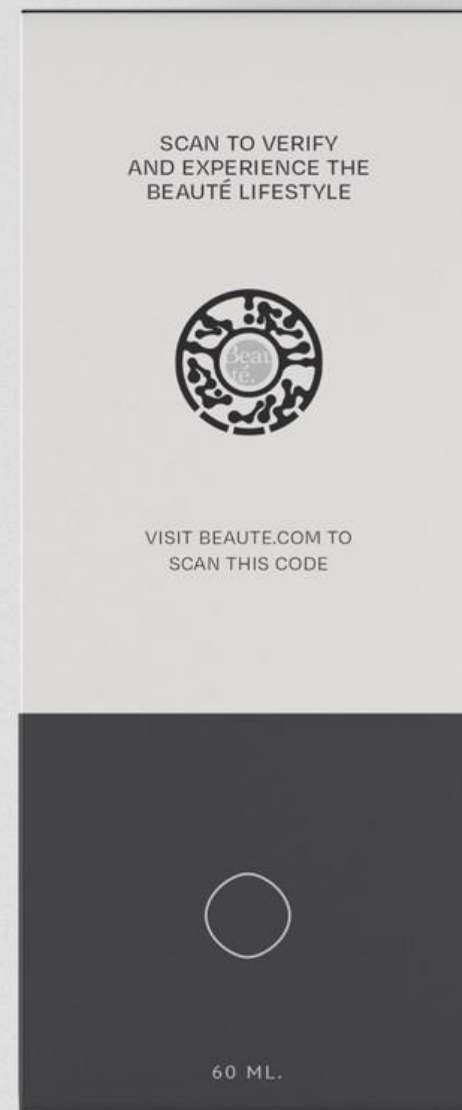
1. Absolute trust in product claims

Excellence, authenticity, provenance,
traceability, sustainability, safety...

2. Compelling consumer experiences

Engage deeply and memorably
- at point of purchase and beyond.

*In order to drive **re-purchase** and **profitability**.*





Try scanning
at laava.id or
tamburlaine.com.au

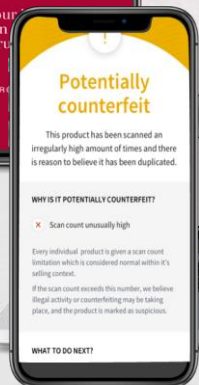
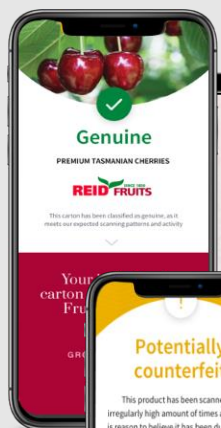
Laava Smart Fingerprints™

The Gateway to Trusted Experiences.

- Every Smart Fingerprint™ is **unique** to the **individual item**
- **Only** ever issued to brand owners, and **cannot be diverted**
- Patented next generation **computer vision** technology.

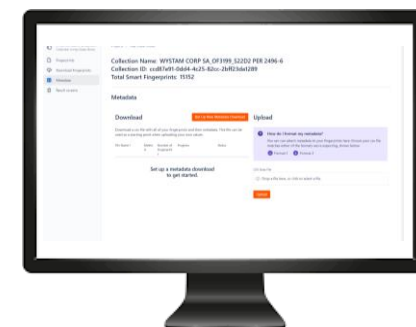
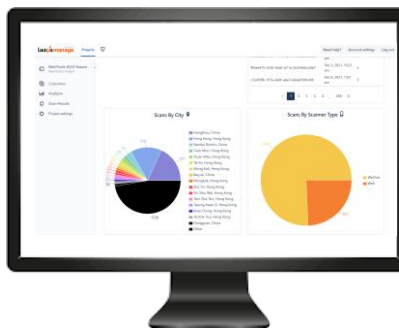
Fast, easy and cost effective to deploy:

- ✓ No app needed. Scan directly from brand website (or WeChat)
- ✓ Print with conventional digital printing; supports GS1 standards
- ✓ Connects to all digital platforms and can be white-labelled.



Laava captures an image of every scan plus date, time, location and more.

Next generation computer vision technology and cloud platform.



Three key capabilities in one.

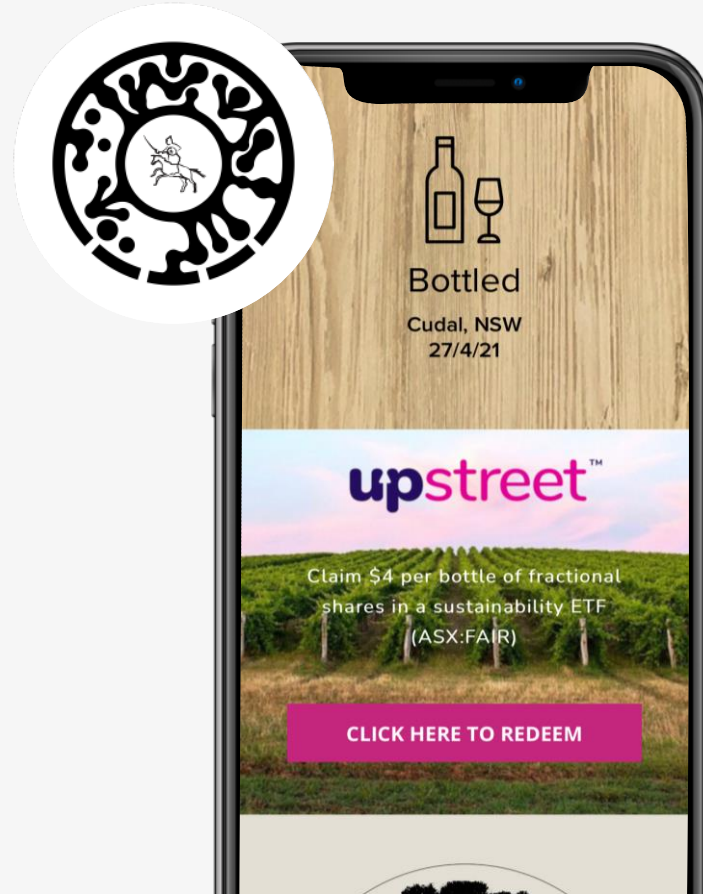
Brand Protection

Confidence in product authenticity, channel integrity and core claims



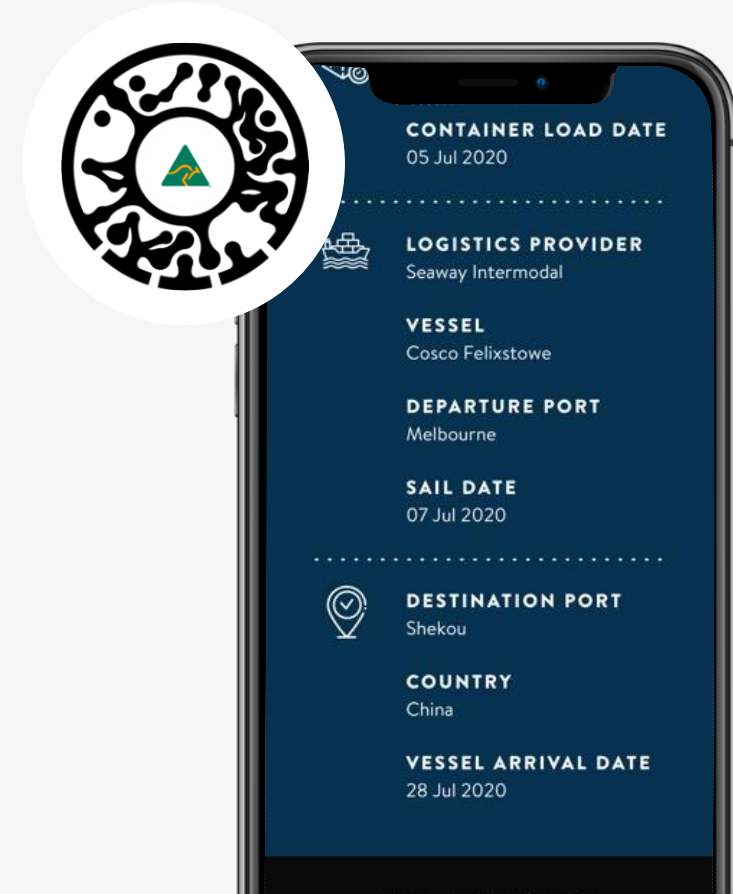
Storytelling & Engagement

Rich consumer engagement storytelling, rewards and more



Provenance & Traceability

2-way integration with ERP, Traceability, DLT, NFT and eCommerce Platforms



QR codes are **not** the answer.

- **Anyone** can create a QR code, not just brand owners
- This is because QR codes use a **freely available algorithm**
- Counterfeiters simply copy the real online experience, and redirect users to a fake one - using their own QR codes
- All encryption, anti-copy features, blockchain, and other QR code based security features are **easily bypassed**
- Consumers **can't distinguish** the real from the fake
- Brands will **never know** it's happening.

Real World Example

1. Premium 'Tasmanian' cherries
2. Fake box
3. Fake cherries
4. Fake QR code
5. Fake authentication website





IBM Research

IBM Research says the **link** between the physical and the digital is **evolving**.

'**Crypto Anchors**' (next generation product markers) are part of this evolution.



- Employ digital fingerprinting and similar techniques to **securely connect** the physical to the digital
- Leverage properties of physical objects that are hard to clone, forge or transfer
- Are capable of **securing** object identifiers (GTIN, serial numbers, lot numbers, etc.) – as a *complement* to product codes
- IBM's 'Crypto Anchor Platform', enables interoperability across Crypto Anchors, Product Identifiers and platforms.



Laava's global customer and partner list is growing fast.

- Millions of Smart Fingerprints are live all around the world, securing brands, products, documents and NFTs
- They've protected thousands of consumers already, and delivered thousands more amazing experiences
- And the best part is... we're only just getting started!



Seafood Industry
Australia
The Voice of Australian Seafood



AUSTRALIAN DEFENCE FORCE



Laava also realised that 'It takes a village'

- So we're building an **ecosystem of trust**
- Laava integrates with and can be white labelled by:
 - Traceability, ERP, provenance assurance and covert solutions
 - Blockchain and NFT platforms
 - Marketing, social media, and ecommerce platforms
- Leverage Laava's global network of **100+** best-in-class partners, or bring your own.



Laava is incredible value - and is fast & easy to deploy.

ESSENTIALS	DESIGN	ENTERPRISE
Protect your brand and design your own engaging digital experiences using Laava Manage.	Everything in ESSENTIALS, plus custom experience design by Laava.	For businesses with complex integration, data or design requirements. Pricing tailored to your needs.
\$299 month AUD	\$499 month AUD	\$999 month AUD
+ 1 cent per Smart Fingerprint	+ 1 cent per Smart Fingerprint	+ 1 cent per Smart Fingerprint
Core features <ul style="list-style-type: none">✓ Brandable Smart Fingerprints✓ Design engaging digital experiences✓ Configurable business rules✓ Scan at laava.id, your website, WeChat or Facebook✓ Analytics dashboard✓ API access✓ Standard support	Everything in ESSENTIALS, plus <ul style="list-style-type: none">✓ Custom label / packaging design✓ Custom digital experience design✓ Up to 2 rounds of changes✓ Annual design update	Everything in ESSENTIALS and DESIGN, plus <ul style="list-style-type: none">✓ Support for complex integration or data needs✓ Bespoke experience design elements✓ Priority support and account management
Excludes <ul style="list-style-type: none">● Pre-press and label / packaging production costs	Excludes <ul style="list-style-type: none">● Pre-press and label / packaging production costs	Excludes <ul style="list-style-type: none">● Pre-press and label / packaging production costs
Pay upfront and receive 1 month free Minimum 12-month commitment	Pay upfront and receive 1 month free Minimum 12-month commitment	Pay upfront and receive 1 month free Minimum 12-month commitment
GET STARTED	GET STARTED	GET STARTED

Take their word for it.



Laava is one of the few unique deep tech companies within the AustCyber portfolio. We were immediately impressed by Laava's highly innovative security features to provide true authentication.

We see tremendous potential for this technology to find valuable applications across a number of industries, both domestically and on the global stage.

AustCyber
Michelle Price
Chief Executive Officer
[VISIT WEBSITE](#)



We have not found another commercial solution that provides us with the product integrity objectives while helping us tell our brand story – at a commercially viable price point.

It's because of this that we have now confirmed the net stage to roll out of the Laava Smart Fingerprint technology on new products in 2020

Tamburlaine Organic Wines
Mark Davidson
Managing Director and Chief Winemaker
[VISIT WEBSITE](#)



I believe Australian food exporters as a whole will stand to benefit greatly from this technology, especially at a time when transparency and trust are becoming increasingly important.

We have not found any other comparable solution that can help us achieve our product integrity objectives while helping us tell our brand story.

Reid Fruits, Tasmania
Tony Coad
Manager & Marketing and Sales
[VISIT WEBSITE](#)



We have utilised Laava to introduce content to our back labels.

We are now at the pre-stages to launch this brand across the Aldi store network, and we firmly believe that the Laava functionality is going to help differentiate our brand on shelf and in the minds of consumers

Swift + Moore Beverages
Cameron Crowley
Managing Director
[VISIT WEBSITE](#)



REID  **FRUITS** SINCE 1856

Feature Case Study



APAC
PROVENANCE

laava[®]
The Global Mark of Trust™


RooLifeGroup

SOURCE
CERTAIN
INTERNATIONAL


escavox

STU SELECTIVE
TRADEMARK
UNION

Feature Case Study

Protecting Reid Fruits Premium Tasmanian Cherries for 3 years in a row.

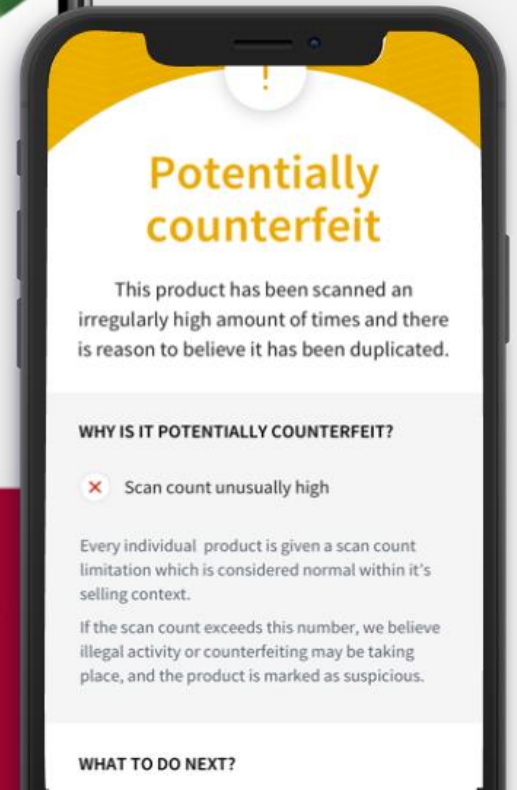
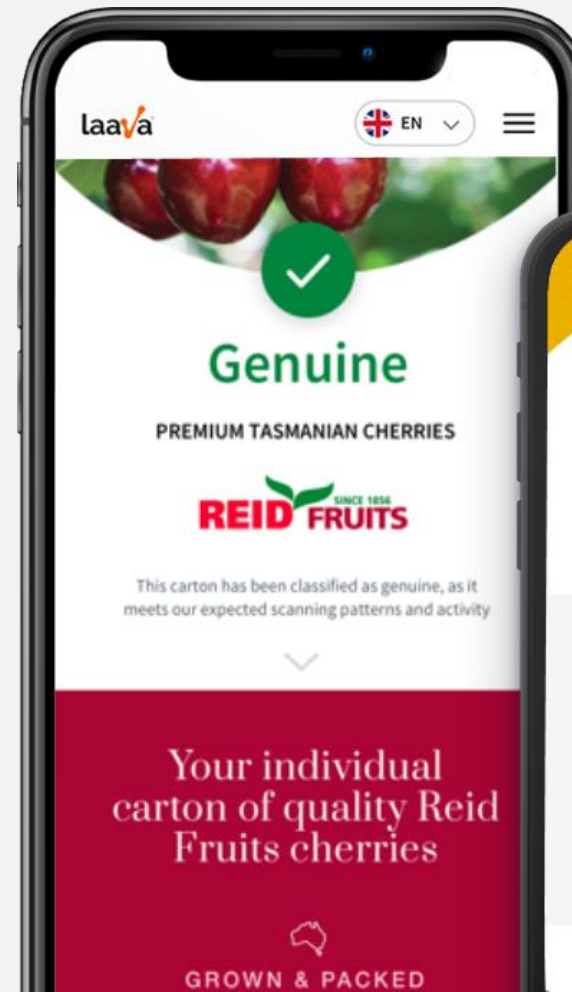
- Premium Tasmanian export grade cherries worth up to \$100/kg
- Famous in China and Asia due to their size, firmness and 72hr tree-to-consumer supply chain. Further amplified by a visit from President Xi in 2011
- Have become a magnet for counterfeiters, with special cartons, security labels and other features copied – often before the product has left Australia!
- In 2018/19, suffered devastating counterfeit issues from using QR codes, which were substituted with look-alikes – prompting Reid Fruits to seek advice from Austrade (Federal Australian Department of Trade)
- Laava secured the contract for all Reid Fruits exports, using simple secure smart labels – needing no systems integration or complex process changes.
- Highly successful first deployment (see over), with Reid Fruits now a Laava repeat customer. We are heading into our **third** season together in 2021/22.



APAC
PROVENANCE

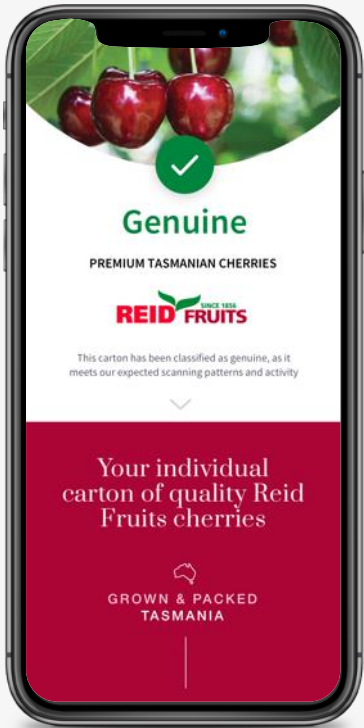


The Global Mark of Trust

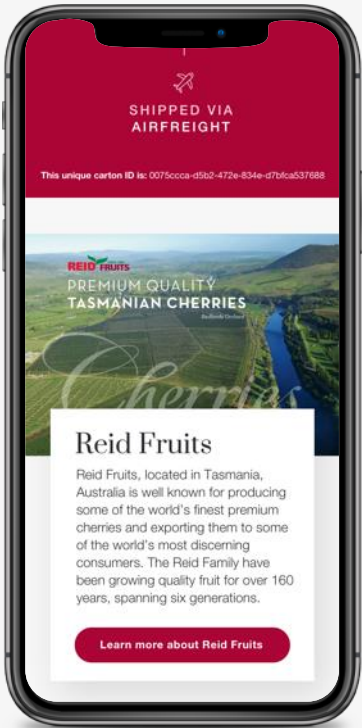


Reid Fruits

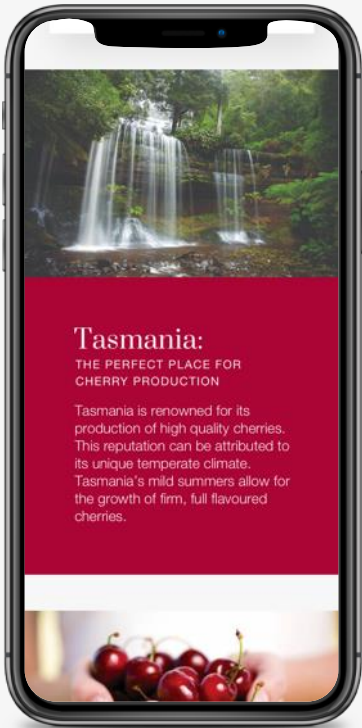
Laava Digital Experience



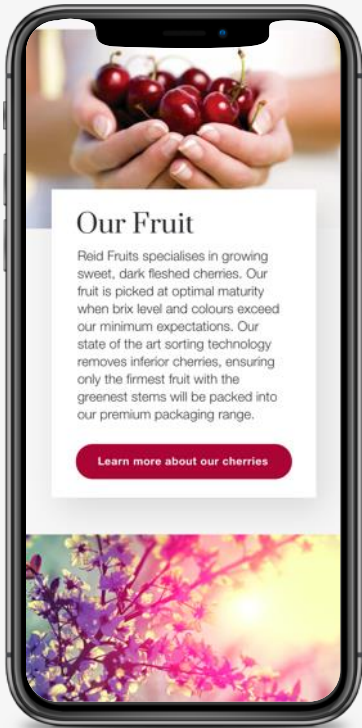
Authentication Story



Brand Story



Provenance Story



Product Story



Engage Deeper

Feature Case Study

In January 2020, Laava's computer vision technology captured **actual vision** of a **real counterfeiting attempt** in China for the first time, and **stopped it**.



Scan #01

Scan of what appears to be a genuine Reid Fruits 'Gold Kangaroo' box (including security features).

Situation normal – no business rules have been triggered yet.



Scan #4

No business rules have been triggered yet, but the label has been cut out of box.



Scan #11

Scan count now exceeds business rules set by Reid, and status automatically changes to 'suspicious'.

Fingerprint being manipulated in image editing software.



Scan #22

Laava Fingerprint status remains 'suspicious'.

Fingerprint printed on bulk reproduction labels. Last scan, bad actor appears to "give up".

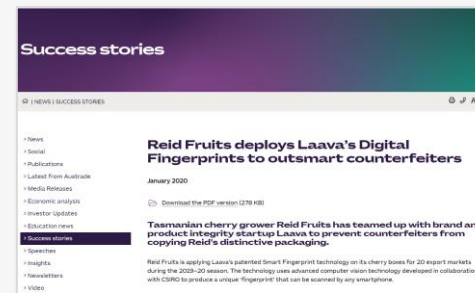
During season 2019/20, Laava detected and **shut down 10 counterfeit attempts** on Reid Fruits.

Season 2019/20 Highlights

- 8 Counterfeit attempts stopped automatically in the first week
- Only 2 more attempts the rest of the season, as counterfeiters moved onto less well-protected brands
- Conversion / engagement rate: 20%
- Austrade featured Reid Fruits and Laava in a case study
- Reid Fruits signed-up for a second season with Laava.



[Read the case study published by Australia's Federal Dept. of Trade](#)



Feature Case Study

For season 2020-21, Laava's APAC Provenance partners combined to take Reid Fruits brand protection and digital storytelling to the next level.



- ✓ **Source Certain International** added Forensic Provenance Assurance
- ✓ **Escavox** added IoT data loggers to monitor quality (location, temp. etc.)
- ✓ **Selective Trademark Union** (Hong Kong, China) added in-market monitoring
- ✓ **Roolife Group** delivered a custom WeChat mini program & influencers.

Season 2020/21 Highlights

- 70% reduction in counterfeit attempts over 2019
- No seizures or press – unlike competitors
- Achieved massive brand reach
- Reid now own their own media in China.

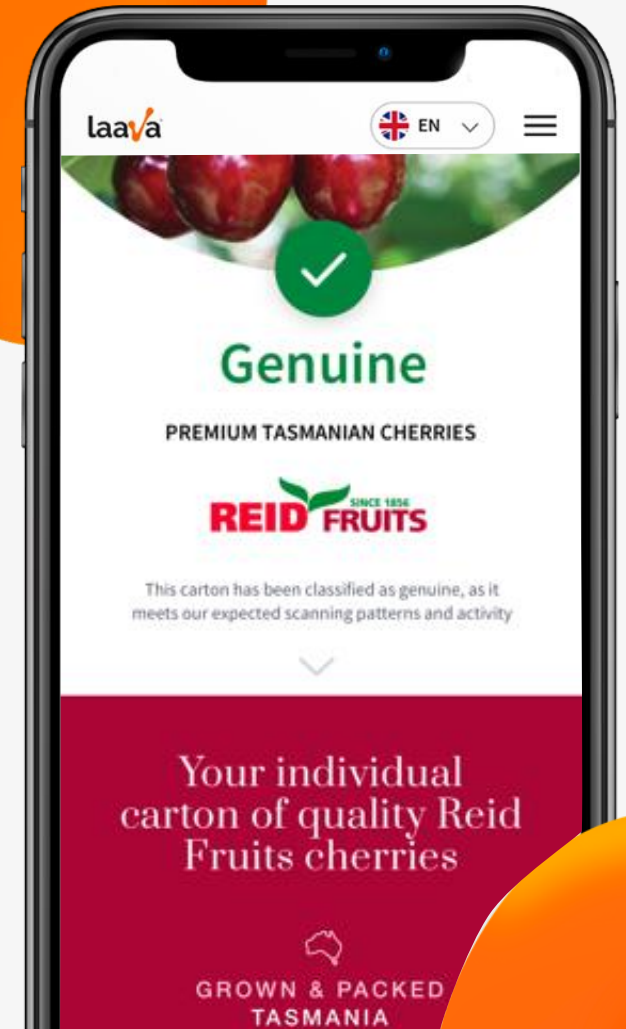


Watch [this powerful Reid Fruits China social commerce video](#) featuring Laava's WeChat capability



Easy to Print and Integrate

Laava uses conventional digital printing and supports all common printing & packaging scenarios.



Laava supports pre-printed labels and over-stickers, via our network of the world's leading digital printers.



Opal.

Laava supports direct pre-printed carton integration (digitally printed), as demonstrated with our partner Opal.

SMARTFARM
Mildura

MODERNISE



Modernise Victorian agriculture through
innovation, investment and future skills.

- Increase the adoption of new, effective and fit for purpose technology.
- Grow a thriving and globally competitive AgTech industry in Victoria.
- Enhance the commercialisation of research.
- Deliver the agriculture skills of the future.



scan to learn more at
scan.laava.id

Laava supports high speed inline scanning of pre-printed cartons or labels, as demonstrated with our partner Matthews.



Laava has developed the ability to integrate scanning and printing at full FMCG line speeds, in concert with our partner Matthews Identification Solutions.



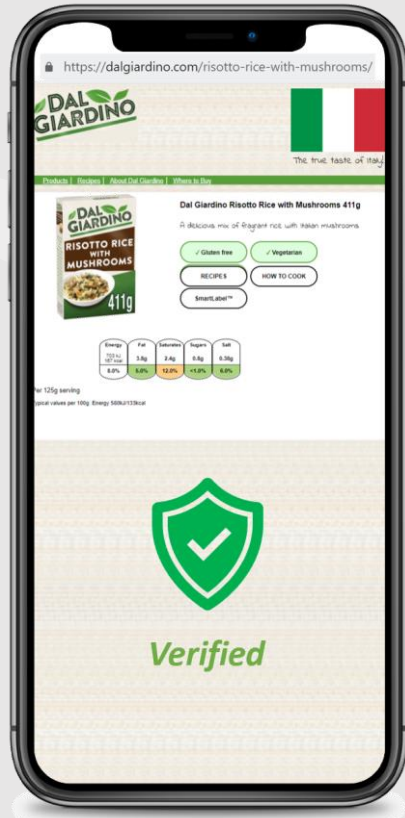
View a demo in action at Hort Connections'21: <https://youtu.be/RCqVLBkAFHc>

Laava can be directly integrated with packing, traceability and coding solutions, for on-demand printing and production line data integration.



Illustrative sample of Laava's 100+ partners





Laava supports GS1 standards



- Laava is a Member of GS1 Australia - and supports all GS1 standards, key qualifiers, and attributes – including the GS1 Digital Link and GS1 Data Matrix
- Laava Smart Fingerprints are a **Data Carrier** in GS1 terms, although technically, they contain no data. In fact, IBM classes Laava Fingerprints as a **Crypto Anchor**
- Laava is often deployed **alongside** GS1 barcodes and RFID tags – and is **not a replacement**. Laava is usually added to deliver ‘last mile’ authentication and secure consumer engagement, regardless of the product's journey.
- GS1 keys and attributes can be stored on the Laava platform or retrieved in real-time from partner traceability or production systems – after being matched
- **Laava supports the GS1 Digital Link**. Digital Link URIs (syntax) can be securely added to Laava Fingerprints, including website URLs and data attributes. URI syntax can also be dynamically and securely updated on the Laava platform post-printing
- Laava enables Digital Link users to **instantly redirect scans** to any traceability platform for rules-based decisioning, and/or any website for consumer or other user experiences. Laava will **only redirect a scan after secure matching** of the Smart Fingerprint.

Laava FAQs

Frequently Asked Questions	Answers
What if a counterfeiter applies fake fingerprints to redirect you to a fake webpage	A Laava fingerprint itself does not carry instructions or data – it is an image captured on the client (phone) and matched against the database of existing fingerprints server-side. Once matched, the rules engine determines what data is returned. So no attempt at creating fake fingerprints can work since it won't be recognised
Can't a smart counterfeiter hack the Fingerprint	It is not encrypted or encoded – just an image that needs to be matched
Can't you do all this with a QR code	You can serialise using QR codes but if you apply a QR code to a product or document, it is immediately spoofable, i.e. fake QR code on fake product takes you to fake website
Aren't NFC / RFID much safer	Mobile phones have NFC readers – if the objective is for consumers to wave their phones over a chip and get a result, then they are as spoofable as QR
What about anti-copy QR codes	Copy of QR codes are not an issue that needs fixing, since it is easier to create fake QR codes
What about proprietary QR codes also registered in a database	Proprietary QR codes create ultimate confusion. If it looks like a QR code, users will expect it to work with any QR code reader and counterfeiters will take advantage of that by using normal (but fake) QR codes to redirect to their desired website. If the user is required to download an app to scan the proprietary QR code, the issue remains.
Can't you copy the Laava Smart Fingerprint and apply it to many copies	Yes you can, but you will be caught quickly, and leave lots of incriminating evidence. Laava has a number of strategies to foil copies, starting with a rules engine (scan count, location, time etc), inside-packaging fingerprints, paired fingerprints etc. In most cases, the counterfeiter will be caught very quickly.
What if the counterfeiter creates fake fingerprints and gets you to scan theirs at a fake scanner URL	That is a possibility, but requires a lot of work, especially the fake scanner. Also, once a consumer scans a fake fingerprint with a real scanner, it will be picked up and reported on, including the image of the product and URL information – so it won't last long.
How will you make Chinese consumers scan Laava fingerprints on a URL	Our WeChat Mini-Programme has its own WeChat code that will redirect the user to our Laava Scanner – no typing required.

Let's Get Started.

View case studies, news,
how-to guides and sign-up at

[Laava.id](https://laava.id)



[Click to see Laava in action](#)

Contact the Laava team today.

We'd love to answer your questions
and help you get started.

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