



Our Single Mission:

To harness the ability of the private sector and collaborate to address the chronic shortage of low income affordable housing.

24 September 2026

The Commissioners
Housing Supply Regulation Inquiry
Productivity Commission

By email: housing.supply@pc.gov.au

Dear Commissioners

Supplementary submission: designating modular housing as serial numbered collateral

Housing All Australians thanks the Commission for the opportunity to contribute further to the Housing Supply Regulation inquiry. We enclose a supplementary submission that builds on the one we provided in June 2026 and responds to the Commission's Interim Report, in particular information requests 1.2 and 5.1.

The purpose of the supplementary submission is practical and specific. It proposes that modular housing units be designated as serial numbered collateral under the *Personal Property Securities Act 2009* (Cth), using a robust unique identifier for each unit, in the same way that motor vehicles, aircraft and watercraft already are. We believe this would give lenders, purchasers and insurers much greater certainty about who holds an interest in a home built in a factory, would likely encourage finance, and would in turn help lift the supply of these homes. The power to do this already sits in the *Personal Property Securities Regulations 2010* (Cth), so it offers the Australian Government a clear way to help move housing regulation towards best practice without needing a new Act of Parliament.

In the interests of transparency, we want to declare a common interest. Robert Pradolin is the Executive Director of both Housing All Australians and Quipex, and Quipex is one of the parties mentioned in the supplementary submission, in connection with the Building Identification Number (**BIN**) pilot it describes. Housing All Australians and Quipex have separate boards, each with independent Non-Executive Directors apart from Robert, who serves as Executive Director of both. Both organisations exist to see innovation in the national interest happen, and to make that innovation happen with collaborative partners. That shared purpose is the reason for our interest in this topic, and we would rather the Commission hear about the common interest directly, so that it can weigh the submission with full knowledge of the connection.

We are also including the National Leadership paper, prepared by Quipex, to give the Commissioners more detail on the BIN Number concept. It is provided for the Commissioners' information.

We would be glad to answer any questions or to arrange a conversation with Commission staff. For detail on how the pilot is progressing, the Commission may also wish to contact prefabAUS or Robert directly.

Yours sincerely

Louise Rutten
Chair
Housing All Australians

Robert Pradolin
Executive Director
Housing All Australians

Enclosures

1. Housing All Australians supplementary submission (September 2026)
2. A National Leadership Initiative for the Modular Industry (Quipex, 2026)

Housing supply regulation inquiry supplementary submission

Designating modular housing as serial numbered collateral

1 Executive summary

- 1.1 This submission from Housing All Australians (**HAA**)¹ responds to the Productivity Commission's inquiry into housing supply regulation, as tasked by the Treasurer on 28 May 2026. It is supplemental to the prior HAA submission provided in June 2026. We also refer to the 'Housing supply regulation interim report' released by the Productivity Commission on 27 June 2026 (**Interim Report**).
- 1.2 The Interim Report has asked:
 - (1) "What are some examples of specific housing supply regulations (in Australia or internationally) that: a) exemplify the features of a best practice system for housing regulation b) clearly do not reflect these features?" (information request 1.2); and
 - (2) "How can the Australian Government best support state and territory and local governments to shift housing regulatory systems towards best practice?" (information request 5.1).
- 1.3 HAA submits that the designation of modular housing units as "serial numbered collateral" for the purposes of the *Personal Property Securities Act 2009* (Cth) (**PPSA**) (alongside the development of a manifestly robust serial number for each unit),² would create a much simpler regulatory regime for moveable housing units, and likely significantly boost the supply of such homes in Australia. This is a clear way for the Australian Government to support a shift in housing regulatory systems throughout Australia towards best practice.
- 1.4 Up to the point a modular home becomes a "fixture" to land (if at all), security interests in such units must be registered on the Personal Property Securities Register (**PPSR**) against a residual collateral category of "other goods"³— a catch-all class for tangible personal property that provides no serial number search capability.⁴
- 1.5 Searching for encumbrances associated with that asset is then via a grantor / debtor-based system which is undesirable for goods that pass through multiple hands and may have undisclosed prior encumbrances.⁵
- 1.6 However modern modular and prefabricated housing is manufactured in controlled factory environments. There are systems evolving which assign each module or dwelling unit a unique identification number by the manufacturer during the production process, analogous to a vehicle identification number (**VIN**) for motor vehicles or a manufacturer's number for aircraft. This is discussed at section 5 of this submission – in the context of what serial number HAA considers should be designated for modular housing for the purposes of the *Personal Property Securities Regulations 2010* (Cth) (**PPS Regulations**).

¹ Prepared with the assistance of Norton Rose Fulbright Australia noting this submission does not constitute professional advice. Norton Rose Fulbright Australia is an unincorporated legal practice, or a multi-disciplinary partnership, under the legal profession legislation of the Australian states and territory in which it practises. It is financially integrated with Norton Rose Fulbright LLP, a limited liability partnership registered in England and Wales. Details of each entity, with certain regulatory information, are available at nortonrosefulbright.com.

² This is further discussed in section 5 of this submission.

³ Collateral that is tangible goods that is **not** agriculture, aircraft, motor vehicles or watercraft is assigned the class "other goods" pursuant to clause 2.3 of Schedule 1 to the *Personal Property Securities Regulations 2010* (Cth) (**PPS Regulations**).

⁴ Land and "fixtures" to land are otherwise excluded from the *Personal Property Securities Act 2009* (Cth) (**PPSA**) pursuant to sections 8(f) and 8(j) of that Act.

⁵ This is particularly so for high-value items and is what the "serial number" designation under the PPSA attempts to solve for. See Cumming, Ronald C.C., Wood, Roderick J., Walsh, Catherine "Personal property security law", 2nd Ed, 2012 chapter 6, page 331.

- 1.7 The current regime regarding security interests in modular units or other transportable homes (other than caravans) that operates as a “grantor” rather than “asset-based” system is discussed at section 2 of this submission and further issues regarding security interests in tiny homes are discussed at section 3 of this submission. The benefits of designating modular units as collateral that may or must be described by “serial number” for the purposes of the PPSA are then discussed at section 4.
- 1.8 There is already an available legislative mechanism for designating modular units and other transportable homes (other than caravans) to be collateral that may or must be described by “serial number” for the purposes of the PPSA and this is outlined at section 5 of this submission, along with our concluding remarks.
- 1.9 Overall it is observed that the current treatment of modular housing under the PPSA (being Commonwealth legislation) does not currently reflect best practice. The absence of serial numbered collateral designation under this legislation creates an uncertain security interests regime that likely deters financing and, by extension, constrains supply. Manufactured or modular homes are an affordable solution to addressing Australia’s housing crisis, but the current legislative framework limits financing in the sector.

2 Current regime governing security interests in modular units

- 2.1 From 30 January 2012, the PPSA established a single national law governing security interests in personal property, replacing 70 different commonwealth, state and territory laws.⁶ The Personal Property Securities Register (**PPS Register**) also replaced multiple different registers⁷ resulting in a more certain, consistent, simpler and cheaper arrangements for personal property securities for the benefit of all parties.
- 2.2 However, with few exceptions, the PPS Register operates principally as a **grantor**-based registration system. To ascertain whether an asset may be encumbered by a security interest, a searcher must generally identify the likely grantor of that security interest and conduct a search by reference to the grantor’s details.
- 2.3 For **limited categories** of defined “serial numbered” collateral the PPS Register also operates in part as an asset-based registration system. In some cases, registrations can only be made against a serial number (without reference to grantor details) and in other cases the registration must reference both a serial number and grantor details (in a hybrid approach).⁸
- 2.4 Serial number searchability is **highly desirable** for goods that pass through multiple hands and may have undisclosed prior encumbrances. This is because a search against what may appear to be the debtor or grantor, or person in possession of such assets will not reveal all interests in those assets.⁹
- 2.5 The mere fact that goods may have a serial number is not sufficient to bring them within the ambit of collateral that may or must be described by serial number for the purposes of the PPSA. The collateral must be specified as such in clause 2.3 of Schedule 1 to the PPS Regulations. Currently this is limited to aircraft, certain intangible intellectual property rights (such as trademarks), motor vehicles and watercraft (as each of those terms are defined in the PPS Regulations).
- 2.6 Notably, “motor vehicles” *also* includes personal property that “is capable, when being towed by, or attached to, a motor vehicle of travelling at a speed greater than 10km/h” but limited to where there is a permanently attached chassis for such purposes. In this way caravans are covered, but **not** modular housing units.¹⁰

⁶ Personal Property Securities Bill 2009 Replacement Explanatory Memorandum p 11.

⁷ Including the Australian Securities and Investment Commission register of company charges, and motor vehicle securities registers.

⁸ The Treasury, *Statutory review of the Personal Property Securities Act 2009* (Final Report, 2015), [6.11.5], p 234-235. Accessed here: <https://treasury.gov.au/review/statutory-review-personal-property-securities-act-2009>

⁹ See above n 5.

¹⁰ PPS Regulations regulation 1.7.

- 2.7 Therefore, modular housing is not currently prescribed as collateral that may or must be designated by serial number and registrations of security interests against units must be made in the collateral class “other goods”.¹¹
- 2.8 However, for a modular housing unit, there are several security interests that may exist in it, at various stages of its lifecycle, from factory completion through to occupancy (and that are capable of being registered on the PPS Register) including:
- (1) “retention-of-title” suppliers of materials, providing construction and fit-out materials in the build of a manufactured home;
 - (2) a construction financier’s security interest (funding the build of the unit);
 - (3) the interest of a lessor of the unit; and
 - (4) a prospective seller or purchaser’s interest, under some sale arrangements.
- 2.9 Notably, given the owner can also change over the lifecycle of the asset, an incoming purchaser may have no way of knowing if there is an undischarged construction lender’s security interest associated with the manufactured home, that is associated with a long-gone prior owner. Conversely a construction lender would not be alerted to any change in ownership (unlike for a change in land ownership) and may have limited practical options in such a scenario.
- 2.10 Furthermore for “other goods” the “take-free rules” in the PPSA, which prescribe when a purchaser can take goods free of existing registered security interests that they might not otherwise be aware of, only apply:
- (1) to goods worth less than \$5,000 (PPSA section 47); or
 - (2) where the seller or lessor is in the “business of selling or leasing personal property of that kind” (PPSA section 46).
- The PPSA simply does not comprehensively cover situations involving high-value assets that aren’t designated “serial numbered” collateral, and which aren’t sold by businesses regularly engaged in selling such assets.
- 2.11 Following the 3-year statutory review of the PPSA, commissioned by the Attorney General’s office, it was (for similar reasons) also recommended that the Government separately consider the establishment of a serial number register for construction and heavy industry machines (yellow goods) that aren’t otherwise covered as motor vehicles under the PPSA.¹²
- 2.12 Noting Australia’s PPSA is modelled on Canadian legislation, it is also worth observing that some provinces of Canada already designate “mobile homes” as collateral that may be registered against by serial number and are commonly defined in some Canadian statutes as follows:
- “mobile home means any structure, whether ordinarily equipped with wheels or not, that is not self-propelled but that is designed, constructed or manufactured to be:*
- (1) *moved from one place to another by being towed or carried; and*
 - (2) *used as:*
 - (a) *a dwelling house or premises;*
 - (b) *a business office or premises; or*

¹¹ See above n 3.

¹² The Treasury, *Statutory review of the Personal Property Securities Act 2009* (Final Report, 2015), recommendation 149, p 236. Accessed here: <https://treasury.gov.au/review/statutory-review-personal-property-securities-act-2009>

- (c) accommodation for a purpose other than one described in paragraph (A) or (B);¹³

This definition would appear to cover modular units as they are understood in the Australian market.

3 Further issues regarding security interests in tiny homes (or modular housing) made to specific purchaser specifications

- 3.1 “Tiny homes” is a generic term to describe compact houses that are smaller than a traditional sized home. Tiny homes can be fixed to the ground or could be mobile structures (this submission only concerns the latter). The treatment of tiny homes that are not fixed to the ground is broadly similar to the treatment of modular housing units described above, provided they do not have a permanently attached chassis which would allow it to be towed at a speed greater than 10km/h (in which case it would be a “motor vehicle” for the purposes of the PPSA, in the same way a caravan is).¹⁴
- 3.2 However, it is worth addressing tiny homes separately as in recent years, courts in New Zealand have extensively considered issues regarding tiny homes and its interaction with New Zealand’s *Personal Property Securities Act 1999* (NZ) (**NZ PPSA**).¹⁵ The cases revolve around the treatment of deposits for tiny homes in circumstances where the manufacturers of the tiny homes have become insolvent. In one case, the company in liquidation had received “substantial payments” in relation to partly-completed pods, and deposits in excess of NZ\$2.3 million from purchasers that did not relate to any identified pods under construction by the company in liquidation.¹⁶
- 3.3 The tiny homes or ‘pods’ in question were the subject of a similar grantor-based security interest system, and many purchasers lost substantial deposits paid, as evidently they did not know they could negotiate for a security interest in the ‘pod’ and were merely unsecured creditors in respect of the tiny homes they had contracted for. This is a fact typically well known to financiers of assets, and where purchasers are paired with a financier, this can in fact benefit the purchaser by ensuring they are appropriately secured against the manufacturer¹⁷ - however uncertainty around priority of a security interest can be a limiting factor for a financier lending money for certain assets. These cases also otherwise highlight the complicated nature of competing interests regarding tiny homes under similar legislation.
- 3.4 Furthermore, tiny homes can more often be specifically identified and appropriated to a known purchaser (rather than being generically manufactured) which can give rise to further uncertainty under Australian law with regards to the treatment of security interests in such assets.
- 3.5 In the Australian pre-PPSA case of *Hewett v Court* (1983) 149 CLR 639 (**Hewett**), the High Court of Australia, by a majority of 3:2, held that an equitable lien arose in favour of the Hewetts in respect of payments made by them for a “transportable” (prefabricated) home that was specifically identified as being built for them as purchasers. The basis for the equitable lien is uncertain but this is likely in part because the contract with the manufacturer was to build a particular, identified building for the Hewetts (there was specific identification and appropriation of the home). The Hewetts were therefore successful in retaining their partially completed modular home, as they were then secured (not unsecured) creditors in respect of the asset.
- 3.6 While the goal of the PPSA as noted at paragraph 2.1 was to create a nationally consistent regime, the PPSA did **not** displace any other Act or general law to the extent that the law is capable of operating concurrently with the PPSA.¹⁸ Section 254(1) of the PPSA states:

¹³ See for example legislation in Manitoba, Saskatchewan and Alberta: *Personal Property Registry Regulation*, M.R. 80/2000; *The Personal Property Security Regulations*, RRS c P-6.2 Reg 1 and *Personal Property Security Regulation*, Alta Reg 95/2001.

¹⁴ Above n 10.

¹⁵ See for example, *Maginness v Tiny Town Projects Ltd (in liq)* [2023] NZHC 494; 2 NZLR 828 and *Francis and Dalton as Liquidators of Podular Housing Systems Limited (in liq) v Gross* [2024] NZCA 528 (**Gross**).

¹⁶ Gross [17].

¹⁷ Indeed one purchaser of a partly completed pod did in fact negotiate for a security interest for the pod being built for them and perfected that interest on the NZ PPSR in Gross (see [39]) – they did not need to participate in the proceedings as a result.

¹⁸ PPSA s 254; Adam Waldam, ‘Resolving Priority Competitions between PPSA Security Interests and Non-PPS Interests’ (2021) 44(2) *UNSW Law Journal* 118.

“This Act is not intended to exclude or limit the operation of any of the following laws (a concurrent law), to the extent that the law is capable of operating concurrently with this Act:

(a) a law of the Commonwealth (other than this Act);

(b) a law of a State or Territory;

(c) the general law.”

- 3.7 Certain interests and assets are then also specifically excluded from the PPSA.¹⁹ The result is that the PPS Register may not reflect all interests that could affect modular housing or tiny homes. There is also uncertainty the extent to which security interests not governed by the PPSA could have priority over security interests arising under the PPSA.
- 3.8 The concurrent operation of the general law and the PPSA creates specific complications in the context of modular units and tiny homes. These units are usually assembled offsite and then moved to the location where they are to become fixtures. The PPSA specifically excludes liens created by operation of the general law (PPSA s 8(1)(c)). The equitable lien in these circumstances also favour the purchaser, not the service provider, which means that s 73(1) of the PPSA does not assist in resolving a priority dispute between a purchaser and a secured creditor. Instead, it will be necessary to look to the general law to resolve the competition between a non-PPSA interest and a registered PPSA interest.
- 3.9 It is unclear how an Australian court will resolve competing legal and equitable interests between a secured creditor and a purchaser in this context post-PPSA.²⁰ The New Zealand Court of Appeal did not follow the decision in *Hewett* and found that New Zealand law did not recognise equitable liens held by purchasers of partly-completed pods to secure payment of instalments of the purchase price of the pods.²¹ A notable difference between, on one hand, the NZ PPSA and the Canadian legislation, and on the other hand, the PPSA, is the concurrent operation provision cited at 3.6 above. The section is unique to the Australian PPSA. As observed by the New Zealand Court of Appeal, “[t]here is no provision in the New Zealand or Canadian personal property securities legislation that correspond to the Australian s 254(1)”.²²
- 3.10 The uncertainty is highly undesirable and has the potential to discourage both purchasers and financiers from purchasing or financing tiny homes. While it may be the case that the issue could be side-stepped with a purchaser contracting with the manufacturer to obtain a purchase money security interest in the tiny home,²³ this puts an undue onus on everyday purchasers who are unlikely to be represented or aware of the intricacies of the PPSA. Due consideration should be given to any changes in legislation that could resolve this priority issue to promote commercial certainty.

4 Benefits for serial numbered collateral

- 4.1 Under the PPSA, depending on the category of “serial numbered” collateral, entry of the serial number may be:
- (1) mandatory, where a security interest will not be perfected without specifying the serial number (for example, aircraft or consumer’s granting security interests in motor vehicles); or
 - (2) optional in the sense that the security interest can still be considered perfected without specification of the serial number. However, in this latter case without the serial number, the secured creditor is at risk of subordination to a buyer or lessee of the collateral, and to a competing secured creditor who includes the serial number in its registration.

¹⁹ PPSA s 8.

²⁰ Lee Aitken, ‘The PPSA, the Limited Operation of the Equitable “Lien” in New Zealand and the continuing application of *Hewett v Court — Francis (as liquidators of Podular Housing Systems Ltd (in liq)) v Gross*’ (2025) 40(10) *Australian Banking and Finance Law Bulletin* 152.

²¹ Gross [149]–[151].

²² Gross [130].

²³ Gross [39].

- 4.2 Serial number registration (where permitted) serves critical protective functions under the PPSA:
- (1) **Taking free rules (section 44):** A buyer or lessee takes personal property free of a security interest if the property is of a kind *that may or must* be described by serial number and a search by serial number would not disclose the registration. This provision protects purchasers of high-value goods that can be traded — it presupposes that the goods in question are individually identifiable and that prospective purchasers will search by serial number.
 - (2) **Registration effectiveness (section 165):** Where collateral is *required* to be described by serial number (that is it is mandatory as per paragraph 4.1(1)), an incorrect or missing serial number renders the registration defective. This ensures the integrity of the PPS Register for serial-numbered goods.
 - (3) **Grantor details:** Under section 153(1) item 2, if collateral is consumer property and is required to be described by serial number, no grantor's details are needed in the financing statement. This recognises that for goods identified by serial number, the serial number itself provides the primary search mechanism and also serves to protect the privacy of consumer grantors.
- 4.3 With these protections in mind, moving security interests in modular housing units from a primarily grantor-based system to an asset-based system would likely result in the following outcomes for financiers:
- (1) A financier taking security for the construction and delivery of specific modular unit(s) will be able to register its interest with reference to those specific modular unit(s) and also search the PPSR against a specific serial number to ascertain any competing interests in the modular(s) at the time of financing (making its due diligence simpler and cheaper).
 - (2) A PPSR registration against a serial number will provide assurance to the financier that the modular(s) cannot be on-sold (potentially in breach of its financing agreement with the grantor of the security interest in the module(s)) – to a third-party purchaser who might otherwise “take free” of its security interest in the modular(s).
 - (3) In the event of insolvency of a builder or other entity with possession of the modular over which a financier has a registered security interest, any registered financier would be quickly identified as having a security interest in that unit, leading to better recovery outcomes for such financiers in insolvency situations (which in turn incentivises front-end finance as it is lower risk).
- 4.4 Matt Dawson, an executive for home lending platforms at National Australia Bank Limited was recently quoted as noting that current state-based *insurance schemes* do not cover construction and delivery of modular housing and so in the event of manufacturer insolvency during construction phase, consumers could lose upfront payments.²⁴
- 4.5 Noting this concern, it is also easy to see other benefits that may flow from being able to register security interests against a specific serial number for a modular housing unit or tiny home. A construction financier, paired with a purchaser, might take a specific security interest in the build of a modular unit or tiny home: protecting both the financier's investment, but *also* the purchasers upfront deposit (as with other forms of equipment financing).
- 4.6 With the security interest then registered against a specific serial number, it is clear what “take free rules” then apply pursuant to the PPSA with respect to the asset and both financier and purchaser are better protected from losing their interest in the event of the manufacturer's insolvency, meaning insurers may be more likely to extend coverage as well.
- 4.7 Designation of modular homes as serial numbered goods, will at least (in part) *also* resolve some of the uncertainty discussed in section 3 by providing notice of existing legal interests associated with a

²⁴ James Eysers, ‘13m bedrooms empty, Boomers are staying put’, *Australian Financial Review* (21 July 2026).

specific modular unit, or otherwise providing a simple clear pathway for registration of a legal security interest in respect of the specific asset.

- 4.8 A boost in the supply of modular housing units would also likely have direct and significant consequences for land lease communities across Australia. In a land lease community, residents own their home but lease the underlying land from the community operator, typically under long-term agreements. The homes situated within these communities are either caravans, **or (as is increasingly more common) manufactured or modular dwellings** as is apparent from legislation in NSW, Victoria, Queensland and Western Australia that specifically applies to these communities.²⁵
- 4.9 Accordingly, the supply, affordability and ability to obtain finance of modular units is directly and materially connected to the capacity of land lease communities to grow and to serve residents; an outcome that is consistent with the broader policy objectives of expanding affordable long-term housing in Australia.

5 What serial number to designate?

- 5.1 HAA is aware that a pilot is being undertaken in Victoria by prefabAUS in conjunction with GS1 Australia, Geoscape, Quipex and other key stakeholder for the implementation of a Building Identification Number (**BIN**) to possibly become standard industry practice for building identifiers, starting with modular construction, modelled on the Vehicle Identification Number (**VIN**) system used for motor vehicles.
- 5.2 A pilot is proposed in partnership with a state authority, to test this approach for use at scale. The Productivity Commission may wish to contact prefabAUS directly for further information on the working group's progress.
- 5.3 In the three year statutory review of the PPSA (The Treasury, *Statutory review of the Personal Property Securities Act 2009* (Final Report, 2015)) (the **Three Year Review**) it was recommended that the serial number system for any new serial numbered asset be under the supervision of a government body to ensure integrity of the serial number.²⁶ This ensures the system is manifestly robust, and that each unit will have a unique and verifiable number.
- 5.4 The Three Year Review then specifically identifies the VIN system as such a secure, central registry of identifying information (and we note it is in fact the prescribed serial number identifier for motor vehicles under the PPS Regulations).²⁷
- 5.5 With further support and development of BINs and a central registry of BINs, HAA submits that the BIN system would be an appropriate prescribed serial number for the purposes of the PPS Regulations.

6 The mechanism for designation is in the Act

- 6.1 The power to prescribe serial numbered goods lies within the PPS Regulations. Under section 153(1) item 4(b) of the PPSA, the regulations prescribe which classes of collateral may or must be described by serial number. The PPS Regulations could be amended to:
- (1) define "modular housing" or "manufactured home" (potentially drawing upon an existing definition in state legislation such as the *Local Government Act 1993* (NSW) which defines "manufactured home" as a self-contained dwelling comprising one or more major sections

²⁵ See, for example, definition of **home** in the *Residential (Land Lease) Communities Act 2013* (Cth) s 4 which includes "a manufactured home as defined in the *Local Government Act 1993*"; definition of **moveable dwelling** in the *Residential Tenancies Act 1997* (Vic) s 3; definition of **manufactured home** in the *Manufactured Homes (Residential Parks) Act 2003* (Qld) s 10; and definition of **relocatable home** in the *Residential Parks (Long-stay Tenants) Act 2006* (WA) s 3.

²⁶ See page 180 of this report. Accessed here: <https://treasury.gov.au/review/statutory-review-personal-property-securities-act-2009>

²⁷ Ibid [6.11.7].

that is not a registrable vehicle,²⁸ or the Canadian definition cited at paragraph 2.12 of this submission);

- (2) prescribe modular housing as a new class of collateral (or sub-class of "other goods") for the PPS Register, that "may" be described by serial number for commercial interests, and "must" be described by serial number for consumer grantors, under clauses 2.2 and 2.3 of Schedule 1 to the PPS Regulations;²⁹ and
 - (3) specify the serial number to be used (e.g., the BIN as further discussed in section 5).
- 6.2 HAA submits that there is no principled basis for including motor vehicles (which also covers caravans), aircraft, and watercraft as serial numbered collateral, but excluding modular housing when all share the same relevant characteristics.
- 6.3 The designation of the modular units as serial numbered collateral overall would advance the fundamental objectives of the PPSA to promote commercial certainty and transparency of security interests.³⁰

Thank you for your consideration.

²⁸ See the dictionary at the end of the *Local Government Act 1993* (NSW). See also section 3 of the *Residential Parks Act 1998* (NSW).

²⁹ HAA submits that the serial number for modular units be treated in a similar way to motor vehicles (and caravans). This strikes an appropriate balance between consumers and secured parties.

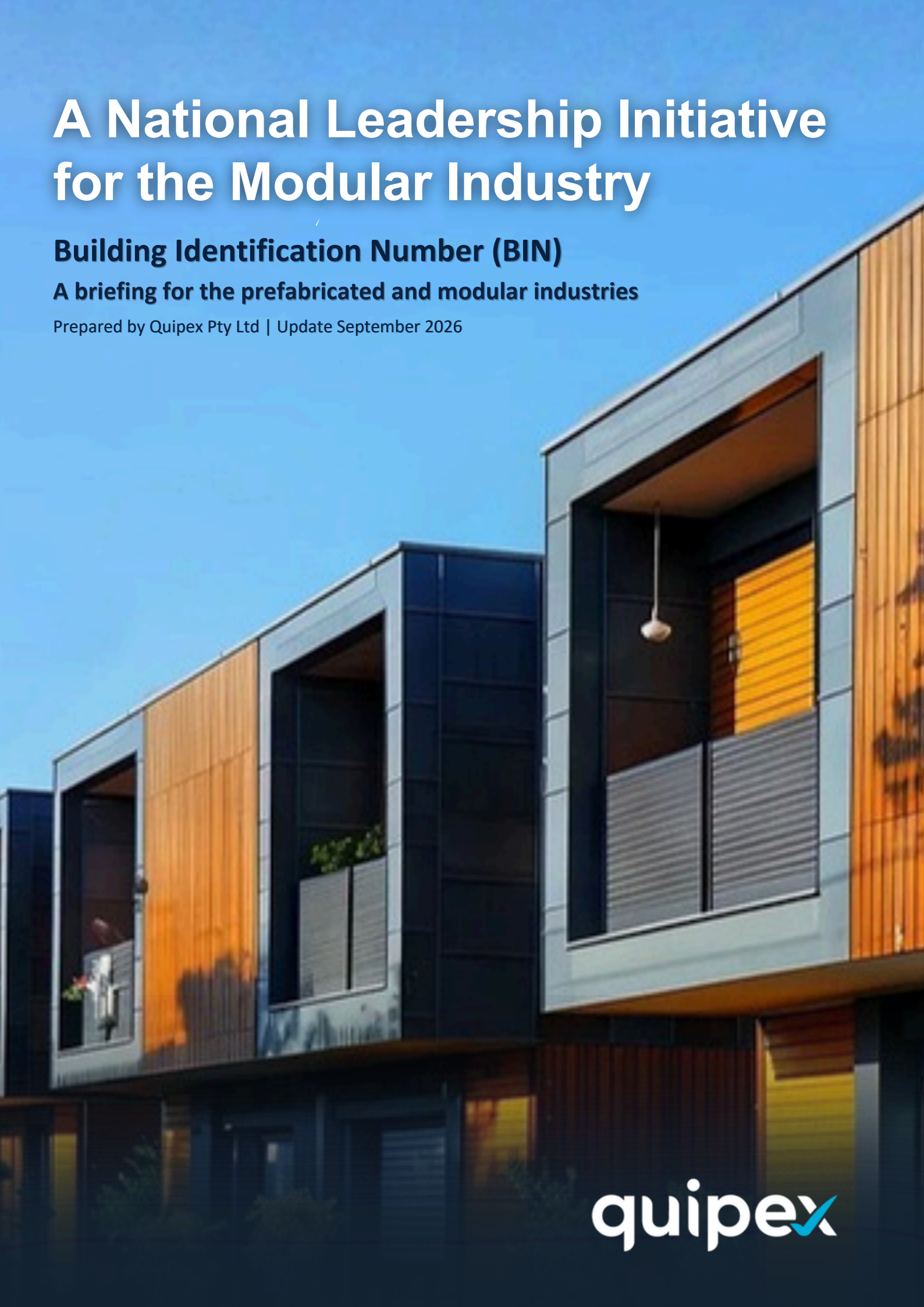
³⁰ See above n 8 and the overall objectives of the PPSA listed at page 477 onwards of that report (Annexure B).

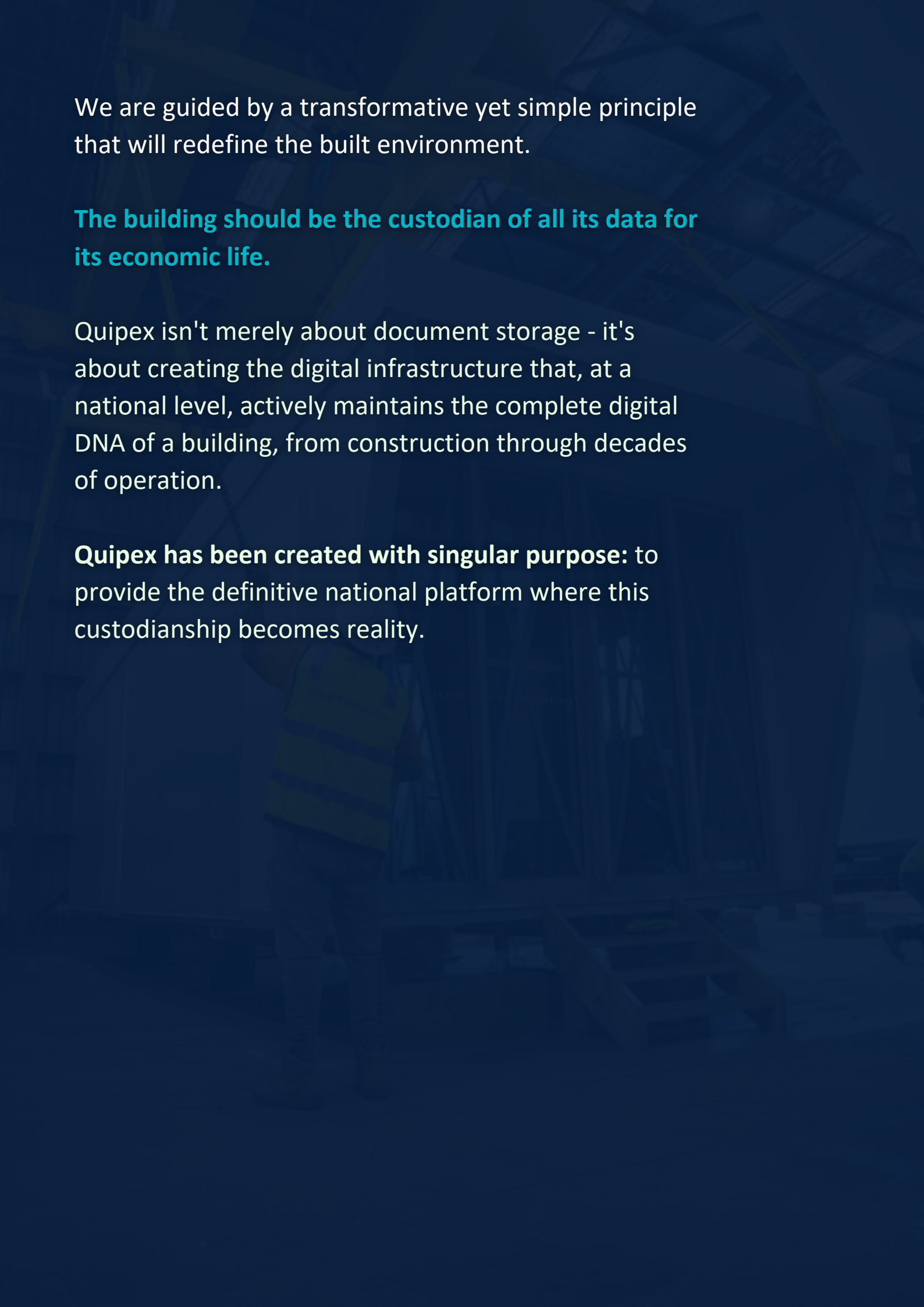
A National Leadership Initiative for the Modular Industry

Building Identification Number (BIN)

A briefing for the prefabricated and modular industries

Prepared by Quipex Pty Ltd | Update September 2026

The Quipex logo is located in the bottom right corner of the page. It consists of the word "quipex" in a white, lowercase, sans-serif font, followed by a blue checkmark symbol.

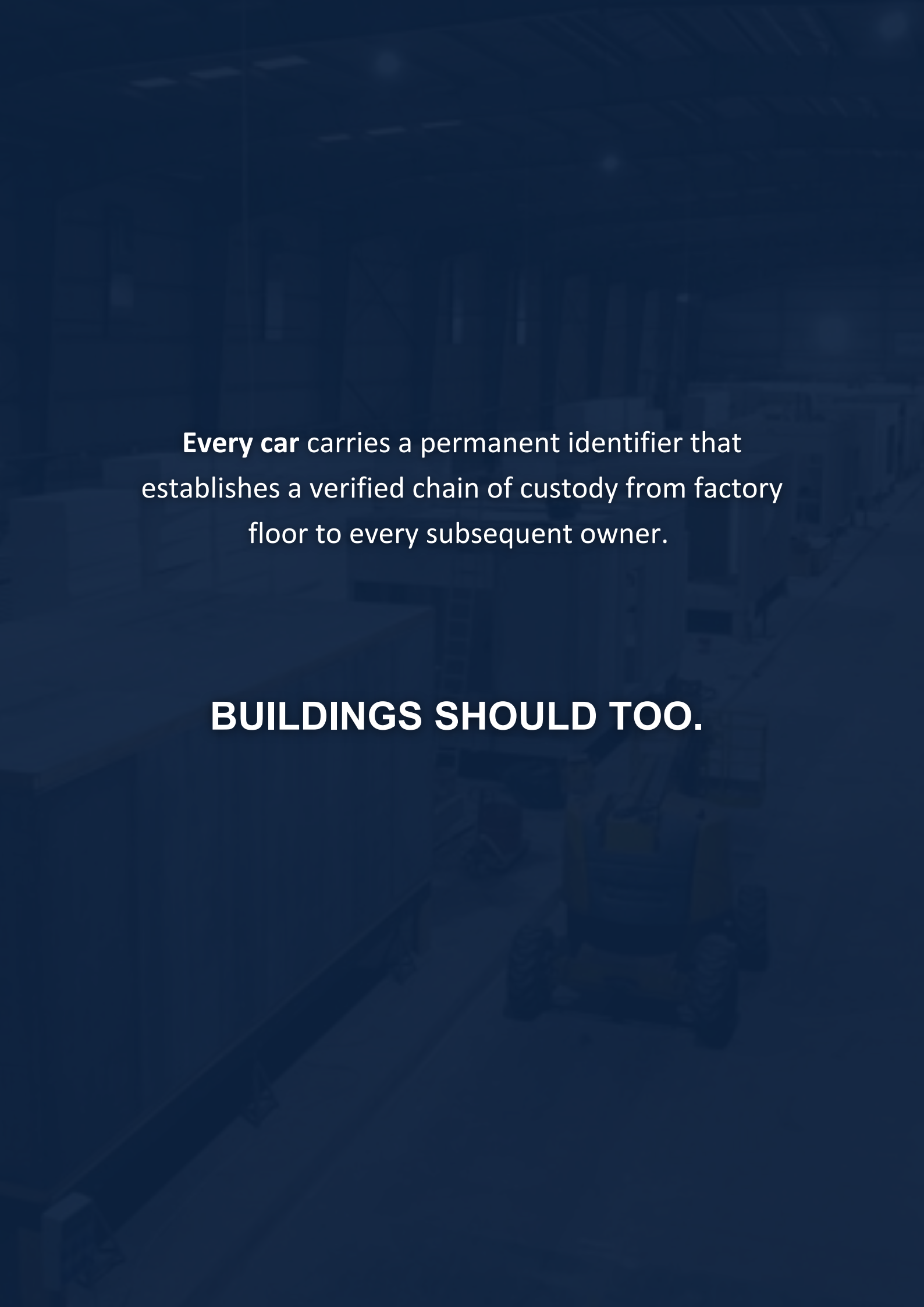


We are guided by a transformative yet simple principle that will redefine the built environment.

The building should be the custodian of all its data for its economic life.

Quipex isn't merely about document storage - it's about creating the digital infrastructure that, at a national level, actively maintains the complete digital DNA of a building, from construction through decades of operation.

Quipex has been created with singular purpose: to provide the definitive national platform where this custodianship becomes reality.



Every car carries a permanent identifier that establishes a verified chain of custody from factory floor to every subsequent owner.

BUILDINGS SHOULD TOO.

ABOUT THIS BRIEFING

Why this document exists

Quipex is designed to become Australia's national digital infrastructure for the built environment. Quipex created the Building Identification Number (BIN) as its approach to identifying every building in Australia: a permanent, unique identifier, able to be anchored to internationally recognised standards and globally interoperable from the outset, and through which each building connects to Quipex. Quipex is putting the concept of a BIN forward as an open standard for industry to adopt. The BIN is intended to become to buildings what the Vehicle Identification Number (VIN) is to cars. Every car carries a permanent identifier that establishes a verified chain of custody from factory floor to every subsequent owner. Buildings should too.

This briefing has been prepared specifically for the prefabricated modular housing sector, where the BIN addresses an urgent and immediate commercial problem. It should be read in that context: modular construction is the entry point for the BIN, not its limit. The ambition behind the BIN is to eventually cover every building in Australia.

Within that broader ambition, the modular construction sector faces a specific and urgent problem that we believe the establishment of a BIN will help solve: the absence of a recognised, standardised identifier for volumetric structures in transit. This gap is currently one of the primary reasons banks apply conservative lending conditions to modular projects and why transit insurance is more difficult and more expensive to obtain than it should be. The chain of custody that should run from factory floor to finished home is broken because there is nothing to anchor it to. The BIN changes that.

This paper focuses specifically on the modular construction sector, because it is where the BIN starts to solve an immediate and measurable commercial problem, and where its adoption creates the proof of concept for the national standard.

THE BUILDING IDENTIFICATION NUMBER

What the BIN is and why it matters

Every car in Australia has a VIN. Every parcel in the logistics system has a tracking number. Every financial product has a unique code. Buildings, which are the largest and most complex assets most Australians will ever own or occupy, have no equivalent. They are identified by address, which can change, or by title reference, which describes the land rather than the structure. Neither tells you what the building is, when it was built, what class it belongs to, what compliance obligations attach to it, or what its maintenance requirements are.

The BIN fills that gap. It is intended to be a permanent, unique identifier assigned to every building in Australia for the duration of its economic life. It is structured to carry useful information within the identifier itself, and it serves as the anchor for a permanent and easily accessible digital record that holds everything known about the building: its plans, its materials, its compliance history, its maintenance records, its warranties, its inspection certificates and its ownership chain.

The founding principle of Quipex is this: the building should be the custodian of all its own data throughout its economic life. Every change of ownership, every renovation, every compliance inspection, every material used in construction should be permanently attached to the building's record, not held by whoever owns or manages it at any given moment. It is the combination of Quipex as the permanent intelligence platform holding that data, and the BIN as the working identifier that anchors it to the building through its full lifecycle, that makes this possible.

In the modular context, where a self-contained volumetric structure may exist as a discrete asset before it becomes a permanent part of a building, each module is treated as its own custodian of data from the moment of manufacture through to its permanent installation. The Quipex platform, anchored by the BIN, will accommodate both the module in transit and the completed building at occupancy.

How the BIN could be structured for Modular



The BIN records the globally unique number assigned by drawing on internationally recognised standards developed by GS1.

GS1 is the global not-for-profit organisation responsible for the GS1 Standards that underpin product identification and supply chain traceability in over 120 countries. The GS1 standards provide guidance standards for barcodes on supermarket products, the identifiers used in regulated healthcare products, logistics, construction and retail, and the QR codes powered by GS1 Digital Link which are increasingly used to link physical objects to their digital records. GS1 standards are ISO and Australian Standards compliant, making them both globally and locally recognised. Quipex is working with GS1 Australia to incorporate their identification standards into the BIN, so that the unique number component is not a proprietary Quipex invention, but a globally interoperable identifier that any system which adopts GS1 standards can recognise and process.

The recommended primary identifier for the BIN is the Global Location Number (GLN). It is worth being clear about what this means for Quipex in the context of the full national architecture.

For every completed building in Australia, a current permanent national identifier is the Geoscape Building PID, issued by Geoscape Australia, a self-funded public company owned by the nine governments of Australia. It is important to note that the Building PID does not provide access to any building data. The BIN connects the GLN to the Building PID so that there is a national integration of digital information. Pertinent public information will be able to be accessible through the QR code powered by GS1 Digital Link which is on the physical BIN plate, and is intended to be affixed to each module. Any smartphone scans the QR code powered by GS1 Digital Link, resolves the GLN, and retrieves the information via the Quipex intelligence record which, once a certificate of occupancy is issued, is also anchored to that Building PID. The Building PID is the national identity. The GLN is the global standard. Quipex is the intelligence layer. What Quipex maintains is the digital infrastructure platform: the permanent intelligence record attached to both identifiers, and the capability to make the building's complete record accessible, transferable and verifiable across its entire economic life.

The identifier used for the modular industry during the factory-to-site phase is based on the GLN, extended to identify each modular component. The Modular GLN allows for serialised, mobile tangible places: things that exist independently, move between locations, and need a globally unique identity that travels with them. It is the identifier for a prefabricated module because the module is a discrete asset from the moment it leaves the factory floor, independent of the land it will eventually sit on. It is a construction-phase identifier that sits within the BIN ecosystem during the period between factory registration and occupancy, at which point the Geoscape Building PID, is linked to the BIN.

The financing problem and why it matters

When a conventionally built home is under construction, the bank can lend against the land and the progressively completed structure on site. The security is visible, fixed and inspectable.

With prefabricated modular construction, the modules are built in a factory, sometimes hundreds of kilometres from the site, and transported for assembly. During the period between factory completion and site installation, the bank faces a question it currently has no reliable way to answer: what exactly is the security, where is it, and who owns it?

This identification gap is not a minor inconvenience. It is one of the reasons why many lenders required alternative security arrangements to modular projects and require drawdown conditions that do not fit the modular construction sequence, or decline to lend against modular homes at all. For a sector that needs to scale rapidly to contribute meaningfully to housing supply, a financing constraint of this kind is a fundamental bottleneck. Insurers face the same problem in a different form: underwriting a structure that has no fixed address and no permanent identifier is significantly harder than underwriting a site-built home.

There is a legal dimension to this gap as well. A motor vehicle is recognised under the Personal Property Securities Act as a "serial numbered good," searchable by its VIN, which is what lets a lender's registered security interest bind whoever buys or takes the vehicle next. Modular components carry no equivalent recognition today, so even a perfectly identified module gives a lender none of that same priority protection. Closing that gap is a longer-term goal which is covered later in this paper.

The three-stage model for modular construction

The architecture for prefabricated modular housing works on a model that reflects an important distinction between two types of modular construction. Where a module is designed and built for a specific state and location, the destination is known from the outset and a BIN is assigned at the point of manufacture.

Many modules must be designed to meet state-specific requirements, including state variations to the National Construction Code, specific climatic conditions, or Bushfire Attack Level zone requirements. In these cases, the destination is not an afterthought. It is a design input, and the data referenced through the BIN reflects that from the first day of manufacture. Where a module is built to a generic national standard with no state-specific design requirements, and the destination jurisdiction is genuinely not confirmed at the time of manufacture, the three-stage model described below provides a pathway to full identifier assignment once the destination is known. Both scenarios are accommodated within the same architecture.

STAGE 1

Factory
Completion

At the point of factory completion, the prefabricator registers each module in Quipex. For destination-specific builds, a full Primary BIN is issued immediately at manufacture and Modular GLN's are simultaneously registered for each module, carrying the Primary BIN. For generic builds where the destination is not confirmed, a Quipex factory record is created and a Modular GLN is issued for each module, capturing manufacturing provenance, specification, date of completion and factory of origin. The factory Modular GLN is not a BIN. It is the precursor to one.

STAGE 2

Sale & Financing
Confirmed

By the time a construction loan is issued and transit insurance arranged, the destination state and address will be known. At this point, for generic builds, the Primary BIN. For destination-specific builds the Primary BIN was already issued at Stage 1. In both cases, Modular GLN are now registered in Quipex for each individual module, carrying the Primary BIN in their serial reference. A six-module home whose BIN is 931234501001 would have modules registered as 931234501001 from M001 through to M006.

STAGE 3

Occupancy
Certificate Issued

Once all modules are installed and the occupancy certificate is issued, the Geoscape Building Pid is issued for the completed dwelling. Quipex, through an API integration with Geoscape, automatically retrieves the Building Pid and records it as the permanent identifier in the Quipex building record. Quipex links the existing GS1 GLN to the Building Pid and encodes it in the QR code powered by GS1 Digital Link on the physical BIN plate affixed to the building. The Modular GLNs are retired and archived within the Quipex record, preserving the complete chain of custody from factory floor to finished home. From this point forward, the building carries one permanent identifier: the Geoscape Building PID. The QR Code powered by GS1 Digital Link encoded with the GLN is the delivery mechanism that makes it scannable from any mobile phone. Quipex is the intelligence record any scan resolves to.

The Modular GLN has two components: a GS1 GLN and a modular extension component. The GS1 GLN is composed of a GS1 Company Prefix that identifies the issuing organisation who is allocating the GLN to its BIN, and a serialised reference field. The modular extension component is structured using its own format, distinct from the BIN, so the two identifiers cannot be mistaken for one another, even when read as plain text. A typical modular extension component takes the form M001, with the MOD suffix identifying which module of the delivery the plate belongs to, for example M001 through M006 for a six module delivery. This means the module number is not a separate identifier sitting alongside the GLN. It is embedded within it as metadata. Together with the BIN, it would appear as (414) 931234501001 (254) M001 (90) to the system.

The GLN is the globally unique GS1 wrapper, and the module suffix is the human-readable serial component inside that wrapper. Both coexist within a single identifier, expressed in two ways on the physical plate fixed to each modular unit: as human-readable text so any person can read and interpret it without a device, and as a QR code powered by GS1 Digital Link so any standard smartphone camera can scan it and resolve directly to the full Quipex record for that module without a dedicated app. The final structure, however, is still subject to ongoing consultation with GS1 Australia. The Modular GLN is initially used for the duration of transit and installation. Once the module is fixed in place, the Modular component is archived and the permanent BIN, already linked at issuance to the building's GLN and Geoscape Building Pid, becomes the sole identifier for the structure's ongoing economic life. It is the BIN, not the Modular GLN, that allows any party querying the building to immediately know what type of building they are dealing with, what compliance obligations attach to it, and when it was completed, before they open a single record. That is information no address and no title reference can provide.

What the BIN enables

The BIN is not a database entry. It is an identifier that connects every data source relevant to a building into a single, permanent, verifiable dossier. For a building owner, it is the record that follows the property through every sale, renovation and change of ownership. For a bank, it is the evidence base for collateral assessment and the anchor for a verified chain of custody that runs from factory floor to finished home and beyond. For an insurer, it is access to the risk profile that informs underwriting.

For a regulator, it is the access to the compliance record that supports enforcement. For emergency services, it is the building intelligence that improves response and will help save lives. For the owner, who during the lifespan of the building may have changed several times, it is the source of truth for accessing information relevant to the building, including compliance, maintenance requirements and material providance.

The physical tag affixed to each module during manufacturing is the first entry in that chain of custody. It is not intended to be removed at installation. It becomes part of the building's permanent history, accessible to any future owner, insurer or renovator who needs to know how and where the home was built.

The BIN becomes more valuable as more parties adopt it, because each party that records something about the building in Quipex against the BIN adds to the record that every subsequent party can access. Quipex is the platform that holds that dossier, interprets it, and makes it actionable. The BIN is the working identifier throughout the building's life. The Geoscape Building PID is the permanent government-issued anchor at occupancy. Quipex is the intelligence. Together, this is national digital infrastructure.

THE MODULAR INDUSTRY

PRIMARY TRIGGER: Asset identification for financing and insurance, and verified chain of custody across the factory-to-site journey

The BIN and prefabricated modular housing

Prefabricated modular housing is one of the most promising responses to Australia's housing crisis. It offers faster construction timelines, better quality control and lower on-site labour costs. Yet the sector faces a structural financing problem that has slowed adoption at precisely the moment it needs to accelerate. The BIN provides a direct and practical solution to that problem, and the path to adoption runs through banks and insurers rather than government. Private sector self-interest is the driver. Government, as an enabler of housing supply, follows.

There is only one national permanent identifier for a completed building: the Geoscape Building PID, issued by a government-owned entity and issued once a certificate of occupancy is issued. Quipex does not control it. Quipex facilitates the allocation of the GS1 GLN to it, making it scannable and the data retrievable. Quipex holds the intelligence the scan resolves to. The Building PID is the identity. The GLN is the delivery mechanism. Quipex is the intelligence.

A note on generic builds and destination compliance

Where a generic module is manufactured without a confirmed destination, the Quipex factory record and its associated modular component serve an additional practical purpose prior to its deployment. What exists in Quipex at Stage 1 is a factory record anchored to a Modular GLN, holding the verified specification of the module: what it is made of, how it was built, what standards it was manufactured to, and what its factory compliance record shows.

When a developer or purchaser enters a destination address, Quipex will query the GLN infrastructure for that location and the relevant state and local building requirements, compares them against the module's specification held in Quipex, and identifies the gaps. The output is an actionable compliance assessment: which specifications meet the destination requirements, which ones do not, and what needs to be modified before installation can proceed. Those modifications are then documented and recorded in Quipex against the Modular GLN as a verified amendment to the factory record, creating a complete and auditable compliance trail from original manufacture through to destination-specific adaptation. A Building PID is then issued once the building has been completed and a certificate of occupancy is issued.

The modular format at a glance

At factory completion	Each module carries a Quipex factory record connected through its BIN. Destination-specific builds receive Modular GLNs immediately while generic builds receive a factory Modular GLN only.
On confirmed deployment	Primary BIN issued. Modular GLNs registered for each module. A six-module home destined for Victoria carries a GLN and M001 through to M006 in transit and during installation.
At occupancy	The Geoscape Building PID is issued and automatically retrieved via a Quipex-Geoscape API integration. Quipex allocates the GS1 GLN to the Building PID (BIN), encoded in the QR code powered by GS1 Digital Link on the physical BIN plate. Modular GLNs are archived. One building, one permanent government-issued identifier, with a complete construction history from factory to finished home recorded in Quipex.

The M suffix is used deliberately to designate a modular building. M001, M002 and so on are unambiguous: any system or person reading the identifier immediately knows they are looking at a module of a building under construction.

What this gives the bank

A lender financing a modular build currently has no standardised way to identify, locate or assert security over modules in transit. With Modular GLNs issued in Quipex at the point of confirmed sale and financing, the bank can at any moment query Quipex and confirm exactly which modules exist, what stage of the journey each has reached, and what the aggregate value of the collateral in motion represents. The Modular GLN gives modular components the same kind of verified, time-stamped chain of custody that a VIN gives a vehicle. Realising the same legal protection a VIN provides today, a registered security interest that binds subsequent purchasers, requires modular components to be formally recognised as serial numbered goods under the Personal Property Securities Regulations, a reform Quipex and interested stakeholders are looking to pursue (see "A Longer-Term Opportunity" below).

The factory record on Quipex gives the bank additional comfort: the data. The manufacturing provenance, specification and date of completion are already in the Quipex system before the loan is drawn. As the building's record accumulates over time and where applicable, Quipex calculates a live Integrity Score (where applicable) from the compliance and maintenance data held in Quipex. That score, co-developed with Arup, can give lenders a continuously updated, independently validated assessment of the building's condition and compliance, making it a stronger and more defensible security asset than one with no verified record.

This should have direct consequences for how lenders can structure their drawdown conditions. Rather than requiring on-site progress inspections tied to traditional construction milestones, a lender can link drawdown releases to registered Modular GLN events: factory completion, despatch, delivery to site, and installation. These events are recorded using the GS1 EPCIS standard (Electronic Product Code Information Services), an ISO/IEC compliant standard also adopted by Standards Australia, which means the traceability data is open, interoperable, and readable by any system already operating on GS1 standards.

In the near term, events will likely be triggered by a human scanning the Modular GLN encoded inside the QR code powered by GS1 Digital Link on the physical plate at each key handover point. The prefabricator's despatch team scans the plate when the module leaves the factory. The site supervisor or transport driver scans on arrival at site. The site certifier records installation completion in Quipex.

In the medium term, Quipex intends to automate event generation entirely, removing the dependency on manual scanning. GPS tracking devices paired with each module (optional) will be able to generate location events continuously throughout the transit journey, with geofence rules triggering EPCIS events automatically when a module crosses defined boundaries. Integration with transport operators' existing logistics management systems will allow Quipex to receive their proof-of-delivery data and convert it into EPCIS events without any additional scanning. At that point the chain of custody record is generated automatically and continuously, and the lender's drawdown conditions are met without any manual intervention from the prefabricator, the transporter or the site team.

What this gives the insurer

Transit and installation insurance for prefabricated modular housing currently requires insurers to underwrite assets they cannot uniquely identify. A Modular GLN changes that entirely. The insurer can reference the Quipex record to confirm what was insured, where it was at the time of any incident, and what the factory-recorded specification of the module was. Claims assessment moves from a contested reconstruction of events to a verified query against a permanent record.

For building insurance on the completed dwelling, the Quipex record that accumulates across the full modular construction lifecycle gives the insurer a quality and provenance record that a site-built home without factory documentation cannot match.

The factory of origin, the materials specification, the date of manufacture and the installation record are permanently accessible in Quipex, anchored at occupancy to the Geoscape Building PID. Beyond storing that data, Quipex calculates a live Integrity Score (if applicable) from the ESM compliance and maintenance records held in Quipex. Developed in collaboration with Arup, the score gives insurers a verified, continuously updated risk assessment of the building's compliance position rather than a static snapshot at the time of the last inspection.

What this gives the prefabricator

A prefabricator who registers a factory record in Quipex at the point of module completion is creating something valuable. The factory record is a verified log of every module the prefabricator has ever produced: its specification, its construction date, its materials provenance and its intended use. That record has commercial value. A prefabricator who can present a developer, a housing authority or a lender with a verified Quipex factory record for every module in their yard is making a quality and accountability statement that a competitor without one cannot match.

For prefabricators seeking to access government-funded housing programmes, including projects supported by the state and federal government, we believe that a BIN registration trail is a compelling demonstration of accountability that public funding bodies have no other way to verify. Modular construction delivered with BIN-registered modules is the most transparent form of quality assurance available for publicly funded housing supply.

What this gives regulators, authorities having jurisdiction and installers

The Australian Building Codes Board's voluntary certification scheme for Modern Methods of Construction, currently under development, is accompanied by a direction to include traceability. The BIN (GLN and the Geoscape Building PID) provides for this capability, enhancing a regulator's ability to trace the provenance of a prefabricated housing module installed at a site under its jurisdiction. Through this mechanism, it will also be possible for the regulator to establish the module's compliance record from design through fabrication, to the inclusion of components and products.

The same arrangement gives on-site authorities confidence that the modules arriving at the site are the correct ones for the project, including any customised components. Site supervisors, project managers and builders can scan the Modular GLN on each arriving module and confirm immediately that it matches what was ordered and approved. This removes a significant source of installation error and dispute, and contributes to delivering the productivity dividend that prefabricated modular housing promises.

The adoption pathway: banks and insurers first

The adoption strategy for the modular sector differs from other building segments in one important respect: the primary driver is not the building owner or even the prefabricator. It is the lender and the insurer. Government is a key stakeholder in housing supply and will ultimately want to encourage and potentially mandate BIN registration for modular construction, but government moves slowly. The faster pathway is commercial self-interest.

A lender who understands that a Primary BIN and registered Modular GLNs give them security they currently lack will ask for it. A developer or builder who needs financing will instruct the prefabricator to register. An insurer who prices transit and completion risk more accurately for BIN-registered modules should offer better terms, and prefabricators will register to access those terms. The BIN becomes a commercial requirement before it becomes a regulatory one, and that sequence should be faster, more durable and more scalable than any legislative mandate.

The initial engagement target is one major construction lender and one transit insurer with modular housing exposure. A working group comprising Quipex, GS1, the lender and the insurer can confirm and possibly refine the BIN and Modular GLN registration standard, the data fields required for lending and underwriting purposes, and the event triggers that connect Modular GLN status updates to drawdown conditions and insurance coverage milestones. PrefabAus, the national industry body representing prefabricated and modular construction, HIA, PCA and Master Builders Australia can also be involved in the working group to ensure national applicability.

A Longer-Term Opportunity: Formal Recognition Under the PPSA

The BIN and the GLN give banks and insurers better information: verified identification, location (optional) and condition tracking, and a documented chain of custody from factory to site. That has real operational value. It reduces disputes over what was delivered and when, supports milestone-based drawdown triggers tied to verified events rather than site inspections, and gives insurers cleaner data for assessing claims.

What it does not do is change the underlying credit risk a bank is pricing. Today, a motor vehicle carries a specific legal status under the Personal Property Securities Act 2009 (Cth): it is recognised as a "serial numbered good," identified by its VIN, searchable on the Personal Property Securities Register, and a purchaser who fails to search that register takes the vehicle subject to any registered security interest. Modular building components carry no equivalent status. The BIN and the GLN are, at present, commercial identifiers only. Better information about where a module is and what condition it is in does not give a lender's security interest priority over a subsequent purchaser or another creditor, which is the actual exposure a bank's credit committee is pricing when it sets conservative loan-to-value ratios for modular projects. Identification alone does not close that gap. Only legal recognition does.

Closing that gap means asking the federal government to prescribe modular building components as a new class of serial numbered goods under the Personal Property Securities Regulations 2010 (Cth), with the BIN nominated as the prescribed identifier for that class. If achieved, this would let a bank register and search its security interest in a modular component by reference to its BIN, in the same way it already can for a financed vehicle, giving it enforceable legal priority over that component while it is in transit and before it is installed on site. This is the change that would actually be capable of shifting lending terms, not the identifier on its own.

This is a discrete regulatory change, not a new program of expenditure, and it is a multi-year reform. Housing All Australians, who are supported with advice from Norton Rose Fulbright, are ready to progress the case with Treasury and through the Productivity Commission's housing supply inquiry. Early adoption of the BIN and GLN approach by a state would provide the evidence base a future legislative case needs: a working identifier already operating at scale, and a demonstrated willingness among lenders to engage with it, rather than a hypothetical proposal. Every module registered against a BIN today strengthens the case for formal recognition tomorrow.

The physical BIN tag: displaying the identifier on the module

Every vehicle in Australia carries a VIN: a unique identifier permanently stamped into the vehicle's body structure and displayed on the compliance plate. It is the same identifier recorded in the national vehicle register. Anyone who needs to verify the vehicle's identity can read the identifier on the vehicle and cross-reference it against the register. The system works because the physical identifier and the digital record are the same thing expressed in two forms.

Quipex proposes the same approach for prefabricated modular units. At the point of factory registration, each module receives a physical identification plate permanently affixed to the module structure in a standardised location. The plate carries two expressions of the same identifier. The first is the Modular BIN string in large, human-readable text: The GLN. The second is a QR code powered by GS1 Digital Link that encodes the full Modular GLN, including the GS1 Company Prefix that makes it globally unique and GS1-interoperable.

Unlike a standard QR code, a QR Code powered by GS1 Digital Link can be scanned by compatible smartphone camera without a dedicated app and resolves directly to the full Quipex record for that module. The human-readable text and the QR code powered by GS1 Digital Link are two expressions of the same underlying identifier: one for people, one for systems. Any bank inspector, insurer, site supervisor or building official can verify the module's identity and access its full Quipex record using only the phone in their pocket. At occupancy, the QR code powered by GS1 Digital Link on the building's permanent plate resolves via the GLN to the Quipex intelligence record anchored to the Geoscape Building PID. The plate is the physical counterpart of a digital record that will accompany this building for its economic life. This is not a new concept.

The vehicle industry has used the compliance plate model for decades. The caravan and trailer industry uses it. Marine craft use it. The prefabricated modular construction industry is in an identical position: high-value, mobile assets that need to be uniquely identifiable at every point in their journey. There is no reason to reinvent the approach. The BIN tag applies an established and trusted model to a context that has never had one.

What the tag enables in practice

A bank inspector visiting a factory or a transport yard will be able to scan the tag on each module and confirm in seconds that the module in front of them matches the security recorded in the Quipex system. An insurer's assessor attending a transit incident can scan the tag to retrieve the module's full specification, its declared value and its insured journey. A building inspector on site can scan the tag on each module as it arrives to confirm the correct components have been delivered before installation begins. None of this will require a paper manifest, a phone call or a login to a separate system. The tag is the entry point to the full digital record.

Once the modules are assembled and the occupancy certificate is issued, the tag on each module becomes part of the building's permanent record on Quipex, anchored through the BIN to the Geoscape Building. It is not removed at installation. It remains as part of the building's history, accessible to any future owner, insurer or renovator who needs to know how and where the home was built. These records cannot be deleted.

The digital tracker: real-time location & condition monitoring in transit (optional)

The physical BIN tag provides identification. The digital tracker provides location and condition intelligence in real time and is the mechanism by which EPCIS events will ultimately be generated automatically rather than through manual scanning. Where the tag tells a bank or insurer what a module is, the tracker tells them where it is, what route it has taken, and whether anything unusual has occurred during the journey. Together they form a complete security and accountability layer for the factory-to-site phase that currently does not exist in the modular industry.

Each module registered in Quipex can be paired with a digital tracking device that transmits location data throughout the transit journey. The tracker is linked to the Modular GLN in the Quipex system, meaning every location event is automatically recorded against the module's chain of custody record. The bank, the insurer and the prefabricator can access that record in real time through the Quipex platform without needing separate logistics software or manual reporting from the transport operator.

The system can be configured with trigger alerts that activate when a module deviates from its registered destination or intended route. If a module carrying a Quipex Modular GLN is transported to a location other than the registered site, an alert can be generated automatically and recorded against the chain of custody. The bank holding security over that module receives notification. The insurer is informed. The prefabricator is alerted. The absence of this capability today is one of the reasons lenders treat modular collateral as higher risk than it needs to be.

The digital tracker does not replace the trust that the BIN and the factory record established. It reinforces it. A bank that knows a module can be located at any moment, and that any unusual movement will trigger an automatic alert, is a bank that can lend with greater confidence against modular collateral. That confidence translates directly into better lending terms and more flexible drawdown conditions for the prefabricator and the developer.

THE THREE-LAYER ARCHITECTURE

The Quipex modular strategy sits within a national building data architecture that has three distinct and complementary layers. Understanding what each layer does, and what it does not do, is essential to understanding why this infrastructure is designed the way it is.

GEOSCAPE	GS1 AUSTRALIA	QUIPEX
Issues the Building PID: the permanent national identifier for every occupied building in Australia, derived from state and territory addressing agencies and satellite imagery. Government- issued, already embedded in every institutional system.	Issues the GLN and encoded in the QR code powered by GS1 Digital Link on the physical BIN plate, making it scannable from any mobile phone.	Holds the intelligence record the scan resolves to: compliance history, ESM records, ownership chain, contractor credentials, materials provenance, maintenance records and the Integrity Score. The Building PID is the identity. The GLN is the delivery mechanism. Quipex is the intelligence.
Cannot be issued until a building has a recognised address. Does not record compliance, maintenance, ownership or any of the intelligence Quipex holds.	Does not hold building intelligence or act as the permanent identifier. The GLN is the delivery mechanism, not the identity.	Does not issue or maintain address identifiers. Builds on top of addressing to provide the layer of intelligence that neither Geoscape nor any government system currently holds.

For modular buildings in the pre-address phase, a GS1 GLN and the modular extension component is assigned at factory registration and travels with the unit through fabrication and transport. At Certificate of Occupancy, the Geoscape Building PID is issued, Quipex links the existing GLN allocated by GS1 Australia to it via a Quipex–Geoscape API integration, and the Modular component is retired and embedded as metadata in the permanent record. The result is a single continuous intelligence record from factory floor to occupied title, anchored at the permanent stage to a government-issued identifier that no private company controls.

Quipex, anchored by the **BIN**, the GLN during construction and by the Geoscape Building PID at occupancy, gives the prefabricated modular housing industry the verified, shared record that banks, insurers and housing authorities need before they can extend that trust at scale.

The factory record and the Modular GLN are not administrative requirements. They are the *trust infrastructure* the sector has been missing.

The intelligence that **Quipex** generates from that infrastructure, from the Integrity Score to the compliance assessment to the chain of custody record, is what converts data into decisions.

For the modular industry, this is where the financing problem gets solved. For Australia's built environment, it is where the journey begins.

Progress only moves at the speed of trust.

Disclaimer: This document represents a proposed concept and is intended for discussion and evaluation purposes only. The approach, standards alignment, technical architecture, and governance arrangements described within this document remain subject to ongoing review, validation, and refinement.

Any references to GS1 Standards, identifiers, Geoscape Building PID or related solutions should be considered preliminary until confirmed through formal assessment, pilot activities, and stakeholder consultation. The final solution design may change based on learnings, standards verification, regulatory considerations, and industry feedback. GS1 Standards are technology-agnostic and are designed to support interoperability across a range of solutions and implementation approaches. GS1 Australia supports and endorses the appropriate use of GS1 Standards but does not endorse or recommend specific commercial solutions, platforms, or service providers.



quipex