BFPCA Submission: Drone Delivery Services

2 Dec 2022



Brisbane Flight Path Community Alliance

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Prepared by Brisbane Flight Path Community Alliance, Inc. (BFPCA)

https://bfpca.org.au

contact@bfpca.org.au

This submission has been prepared by Brisbane Flight Path Community Alliance (BFPCA) in response to the Department of Infrastructure, Transport, Regional Development, Communication and the Arts call for the public's feedback on infrastructure planning guidelines to support the integration of drone delivery services in the community.

Who is BFPCA?

Brisbane Flight Path Community Alliance (BFPCA) brings together Brisbane communities adversely affected by Brisbane Airport's flight paths – including noise pollution and human health impacts.

A new network of flight paths was designed by Airservices Australia for operation of the new parallel runway. Since this airspace design became operational in July 2020 there has been a severe increase in noise pollution and health impacts on thousands of people and many communities in Brisbane.

This common experience has brought these communities together to collaborate on and advocate for urgent actions to mitigate noise pollution and other impacts on communities living, learning and working under Brisbane Airport's network of flight paths.

Context for this submission

Communities have the right to the quiet enjoyment of their neighbourhoods free from preventable, excessive, unsustainable and unmitigated airspace noise pollution. Residents living under flight paths in Brisbane have not been afforded that right and have many concerns about the introduction of drones into the already congested airspace above their homes. There is ample evidence to support our contention that the Department of Transport and Infrastructure, Airservices Australia, and CASA do not have the capability or capacity to manage something as complex and far-reaching as drones in our airspace in a manner that protects our safety, our security, our privacy, our amenity and our sanity. And who decided that we want or need delivery drones?

Serial failures by Airservices Australia (AsA), CASA, The Department of Transport & Infrastructure, and the Brisbane Airport Corporation(BAC) to protect the health and amenity of Brisbane residents has resulted in a large swathe of Brisbane being subjected to unreasonable and excessive aircraft noise pollution that is harmful to human health. Their most recent failure is the failure to rectify their failures. The skies above Brisbane are a mess. The noise pollution imposed upon us by a private corporation has stolen our lifestyle, our health, our financial security, our sanity, and fundamentally changed the character of our city. BFPCA and our community of supporters have no confidence in these organisations to successfully manage drone traffic in our skies. Airservices Australia is chronically understaffed and under skilled and, with departmental oversight, needs to prioritise fixing the existing flight paths above Brisbane before taking on additional complex workloads.

On a documentary about the new parallel runway for Brisbane Airport, the former CEO of BAC, Koen Rooijmans, was quoted as saying "there was no rule book for this, we've had to make it up as we go." BFPCA is particularly concerned that once again the government is 'making this up as they go' with no plan for how they will regulate this highly complex, privatised industry, rein in the growth aspirations of Google 'Wing' and other high tech drone companies once they've been unleashed, and manage the many negative impacts of drone delivery services.

Our Observations

In the spirit of learning lessons from the multiple failures of the new parallel runway, BFPCA draws parallels with the current drone delivery service 'project' and offers our observations and recommendations.

1. Does the community even want this?

BFPCA is alarmed and concerned that the Drone Delivery Services 'project' is being pitched to the community as *fait accompli* without any genuine discussions or consultations with Brisbane residents as to what it will be, its impacts, and whether it is something that the community wants. Drone operations demand an open and expansive discussion with the community, one that goes beyond touting the purported benefits. We wish to be involved in a discussion about the necessity of delivery drones BEFORE being asked to contribute to the infrastructure planning guidelines. Has a social license to operate been presumed?

We are all impacted stakeholders in this project and have the right to decide how the skies above our homes, already congested with aircraft traffic, will be used in the future. We want to know more about who was consulted before our government agreed to Australia being used as a laboratory for Google's drone ambitions. We want to know how our privacy, safety and security will be protected. We want to know how drone deliveries will scale in volume and frequency, and how complex flight paths for drones will be contained and managed. Will high density areas be banned for drones? Are drones restricted to delivering essential supplies such as medication, or will they be delivering pizza? We want to know how you intend to distribute air and drone traffic in a manner that minimises the impact on residential areas. There are many considerations that have not been socialised or discussed with the community and now we are expected to provide feedback in a very short 4 week timeframe.

This is reminiscent of our government signing Brisbane up to become an aerotropolis, without any consideration for what the community wanted. BAC are now suffering community backlash and paying the price for having no social license to operate - this will continue until the community is satisfied that their demands have been met. When the government fails to collaborate with the community on these decisions before bulldozing ahead with implementation, it inevitably results in a longer, costlier, more divisive and less successful endeavour.

2. Does the business case really stack up?

We are all too familiar with projects being forced upon an unsuspecting public with exaggerated claims of the number of jobs that will be created and the efficiencies they will deliver, with little to no analysis or discussion on the costs, and whether the community wants them or not. In the case of the Brisbane Airport, they touted that the new runway would 'solve Brisbane's aircraft noise problem.' Noise forecasts and maps grossly understated the impacts. Use of the bay for two directional simultaneous traffic was oversold. Such obfuscation of the costs was pervasive throughout the lifecycle of the project and continues to this day.

History is repeating. BFPCA has reviewed the publicly available information on Drone Delivery Services in an effort to clearly understand both the benefits and costs of opening our skies to drone deliveries, and to inform the writing of this submission. The authoritative source of truth can be found on the official government website (drones.gov.au). We note that once again the government is only publishing information on its website about the benefits of drones in Australia, with NO information being made available on the risks, costs, disbenefits, nor providing any information on the results of trials. The information available to the public on the government website is more of a sales pitch than a considered cost/benefit analysis and is reminiscent of the 'selling of the new runway' to Brisbane residents many years ago.

While the risks and costs have been ignored, the benefits have been overstated. For example, we are highly sceptical of the unproven and untested claims of environmental sustainability that fail to take into consideration the entire delivery services logistics chain and instead focus just on the 'last mile delivery emissions.' This is just one example of many.

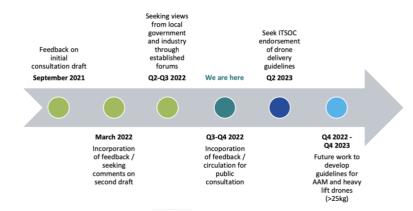
And where is the Environmental Impact Assessment? Such a massive change to the habitat above our heads surely requires a full EIA to be conducted?

Has Drone Delivery Services been structured as a project, requiring funding, strict governance and oversight, and implementation rigour? Or are we making this up as we go?

3. Public Consultation and timeline

It is our considered opinion that the public consultation period is being rushed through and in a manner designed to minimise the input received from the community, also reminiscent of the new parallel runway project in Brisbane. In the absence of an extended period of education with the public, including a direct communication blitz such as letters to our mailboxes, it is disingenuous to expect that our community would be aware of the public consultation period. The existing notification mechanisms i.e. notice on a drones.gov.au website which no one is looking at (and which by the way, is very scant on details) is inadequate.





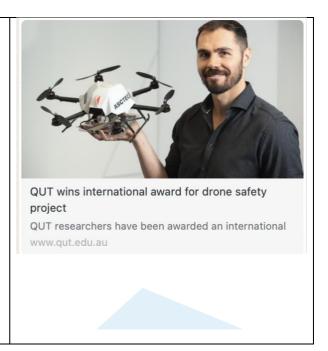
This is a very complex issue. There has been no preceding period of education or notification. Four (4) weeks of time for public submissions, following a year of consultation with industry and government, is completely insufficient.

We are aware that both the federal and state governments have already forged ahead with allowing Australia to become the epicentre for drone technology and trials, for both commercial and defence applications. It would appear that this call for public feedback is the government playing catch up on due process, having failed to consult with the public in any capacity prior to now.

The following articles demonstrate the advanced stage of drone introduction to Australian skies, all of this prior to any consultation with community.

Airservices Australia is already working with QUT to integrate drones near busy airports.

Link to article



Australia has quietly become the epicentre of Google's global plans for conquering the drone delivery industry in recent years, with Wing conducting more deliveries here than in any other country worldwide."

Link to article

Type a message **AVIATIOI**

Exclusive: Google drones to pick up packages Australian shops

Wing's Jesse Suskin hinted the significant australianaviation.com.au

and this

Link to article



Alphabet's Wing is working on larger drones that can handle heavier deliveries

Prototypes that can handle seven-pound packages. www.theverge.com

Early signs that the department recognises it is ill equipped to manage noise from drones - trying to pass the buck.

responsibility for noise in the emerging dronedelivery sector has been met by opposition from a

surprising source — the world's leading dronedelivery company."

Link to article



That buzzing noise is not our problem, say Feds, but leading drone company disagrees

The noise of delivery drones has caused an outcry, but www.abc.net.au

The Minister for the Department of Transport and Infrastructure, Catherine King, has already thrown \$18 million of taxpayer money in a 'first round' of funding for Emerging Aviation Technology.

funding for Emerging Aviation Technology.

Catherine King ♥
November 7 at 11:18 AM · ♦

We are supporting the take-up of emerging aviation technology in Australia, with more than \$18 million awarded for 12 projects under the first round of the Emerging Aviation Technology Partnerships program.

This program is about ensuring our aviation remains at the forefront of innovation as it continues to develop and grow.



Link to Facebook post by Catherine King

The Federal and Qld Governments are giving millions of \$ towards the Defence Cooperative Research Centre for Trusted Autonomous Systems (TAS). A \$50 million centre to develop drone and robotics technology for the defence industry. All top secret. Is Australia building killer drones?





QLD Ministers and EPE Director announced Defence CRC Trusted Autonomous Systems

The Queensland Government welcomed the Federal www.epequip.com

And this ...

https://statements.qld.gov.au/statements/83360



Q

The Queensland Cabinet and Ministerial Directory

Queensland to build multi-milliondollar tech hub for military drones

And again

https://twitter.com/katejonesqld/status/9426330452 31677440



Queensland is leading an exciting future for drone technology and unmanned vehicles winning a \$100 million Defence Coooerative Research Centre for Trusted Autonomous Systems @QUT @sbxr @QChiefEntrepren @camerondickqld



Negative feedback from communities where trials are already underway (Logan and Canberra) hasn't slowed progress.

<u>Link to You Tube video of the Current Affair</u> <u>coverage</u>



Residents say drone deliveries are driving them mad | A Current Affair

A balanced discussion in The Conversation.

Link to article



4. Regulatory Framework

BFPCA has reviewed your document 'Attachment A – Infrastructure planning guidelines for drone delivery services', we note that the regulatory framework for drones mirrors that of general aviation:

- The Australian Government (Department of Transport and Infrastructure) is responsible for aviation safety and noise
- State, Territory and Local governments are responsible for land use planning
- The Civil Aviation Safety Authority (CASA) regulates the safety aspects of civil aviation, including drone flights.
- Noise created by drones in all phases of flight, such as take off and hover, is regulated by the Department under the Air Navigation (Aircraft Noise) Regulations 2018 (the Noise Regulations).

Forgive our scepticism, but the bruised and battered residents of Brisbane are fully aware that the very loose regulatory environment for aviation and airport noise is designed to benefit the privatised aviation industry and not to protect the community living below the dirty flight paths. In fact, there is no regulation at all about maximum noise levels permitted by aircraft and no regulations that can actually protect communities against excessive noise.

It is well established that the privatised aviation industry has such tight control over policy makers, politicians, the two main political parties and (what used to be) regulators that they now shape and implement policies in service of their own corporate interests - at the expense of the general public. This regulatory capture is so entrenched that we can only expect that the profit and growth aspirations of the privatised drone industry will again take precedence over public interest.

Adopting the same ineffectual, captured, and biased regulatory framework for drones is a major red flag for BFPCA.

5. Noise

We note points 10 to 24 under the section in Appendix A, entitled "Noise," which appear to be more of a collection of general comments and statements than a professional brief defining a fully considered noise abatement strategy. It is disturbingly lacking in any actionable or enforceable noise abatement measures. The focus of your section on 'Noise', is largely on noise measurement, which is meaningless if not combined with noise limits and noise penalties when limits are exceeded.

Our point by point response has been included (see below).

10. The noise created by drones in all phases of flight, such as take-off and hover, is regulated by the department the Air Navigation (Aircraft Noise) Regulations 2018 (the Noise Regulations).

BFPCA Response: Aircraft Noise Regulations 2018 are inadequate and provide no actionable or enforceable noise limits that operators must comply with. Other than having to obtain a noise certificate based on manufacturers claims of noise performance, there is no further compliance required. Old planes can be given an exemption for noise certificates. With no maximum noise level mandated, there are no penalties for excessive noise. The only governmental obligation to the community on aircraft noise is to place noise monitors throughout the community to measure the noise.

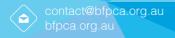
11. The Noise Regulations were amended in December 2021 to streamline drone noise management. As of 1 July 2022, most commercial drone operators are required to complete a self-assessment form as the first step to obtaining a noise approval. Drone delivery services will typically require a full assessment process to gain a noise approval.

BFPCA Response: Self-assessment by drone operators to obtain a noise approval is a completely inadequate method of managing noise. This 'noise measure' appears to be more designed to streamline the process of approval than it is a noise abatement measure. Noise measurement without noise limits and penalties are meaningless.

12. The department considers a range of matters relating to noise impacts, including from the frequent take-off and landing of drones at infrastructure sites, as part of the operational approval process. Should you have any questions, please email <u>dronenoise@infrastructure.gov.au</u>

BFPCA Response: This is a general comment, not a noise abatement measure. We have many questions. What is the range of matters? What are the regulations that have been put in place to protect communities? Where are these matters published for public scrutiny?

13. In some limited circumstances, the regulation of drone noise may be the responsibility of a state government.



BFPCA Response: What are those circumstances? This introduces further ambiguity into the aviation regulatory environment in Australia than already exists. The community strongly rejects the use of 'loose' rules which ultimately allows more players to point fingers and pass blame when problems arise.

15. The department will consult with local governments as part of the noise approval process for drone delivery services to ensure community feedback is managed appropriately.

BFPCA Response: Does this mean it is a Federal and Local responsibility? Who is ultimately responsible when things go wrong? This introduces more ambiguity, allowing further abdication of responsibility when the inevitable community backlash ensues. The community is tired of and angry at their feedback being 'managed' and would instead prefer to be listened to and issues rectified in a timely manner.

16. The department will typically require drone operators to undertake noise measurement of their aircraft in operation as part of the noise approval process, unless existing measurements for the type of aircraft being used are available?

BFPCA Response: This is a toothless tiger. What is the point of measuring noise if there is no maximum noise limit to adhere to? And no penalties for exceeding noise limits?

17. Commercial drone delivery aircraft for which measurements are available typically produce noise that is between 50 dB and 70dB at a distance of 25-30m during take-off and landing.

BFPCA Response: Are these measurements averages? Or maximums? As Airservices Australia is aware, the reporting of noise levels as averages dilutes the messaging about noise impacts - the instantaneous maximum noise is what impacts the lived experience for the person underneath a flight path. In either case, drones landing frequently in a neighbourhood at 70 db would be an unacceptable noise impost on communities already subjected to excessive overhead noise.

18. This noise profile is not substantially different from what is commonly experienced in commercial and light industrial areas, such as normal conversations (60 dB), loud conversation (70dB), kerbside heavy traffic (75dB) and construction vehicles (80DB).

BFPCA Response: The EIS for the New Parallel Runway at Brisbane airport used similar examples to explain noise levels. 70dB was explained as being similar to the noise in a coffee shop in New Farm. These examples are nothing like what repetitive aircraft ascending and descending over your home every three minutes at decibel levels of 60, 70, often 80 and sometimes 90 sound like. One can leave a coffee shop in New Farm, but one cannot escape repetitive aircraft noise pollution over one's home. The World Health Organisation (WHO) states that noise levels that exceed 40 decibels in the evening, and 50 decibels during the day, are harmful to human health.



This is the context that should be used to explain that drones will be operating in the 50-70 dB range.

19. Sound is reduced by about 6dB for each doubling of its distance from the source. The generally accepted noise limit in Australia for residential areas during the day is between 40dB and 50dB.

BFPCA Response: We agree that 40-50 dB should be what is generally acceptable for daytime residential areas. However thanks to Airservices Australia, Brisbane residents are subjected to noise levels above 70 dB on a continual basis, and with no curfew, it is an 24 hour a day experience for tens of thousands of Brisbane residents. Given that the department acknowledges that noise levels over 50 decibels is not acceptable, why then not adopt WHO guidelines as the mandated upper noise limits in residential areas?

20. A range of factors can influence the noise impacts experienced in different locations, including local topography, cumulative noise impacts, and the effectiveness of drone noise abatement measures.

BFPCA Response: We agree. However the department has not proposed any drone noise abatement measures. All of the points listed under the section 'Noise' in Appendix A are statements about how much noise can be expected, how an operator gets approval to operate, and who they liaise with to obtain approval. There is not even a single noise abatement measure proposed. As previously stated, the regulatory framework currently in place for aircraft in Australia is not fit for purpose, and is completely not fit for the regulation of drones. The current regulatory framework is designed solely to allow unconstrained growth and operations and does nothing to protect communities.

21. It is not recommended that planning authorities require an independent noise measurement of drone operations where the planned infrastructure is within commercial or industrial areas.

BFPCA Response: Presumably the delivery drone will leave the site of drone infrastructure which is in a commercial or industrial area, and then proceed to a residential area. Noise measurement, along with mandated noise limits, and penalties for exceeding noise limits must apply.

22. If planning authorities are concerned about the potential noise impacts on nearby noise-sensitive receivers from drone operations associated with drone delivery infrastructure, it is recommended that they contact the department at dronenoise @infrastructure.gov.au.

BFPCA Response: And what will be done?



23. The department is responsible for managing complaints and enquiries about drone noise. Community feedback can help identify issues of concern and possible opportunities for improvement. The department works with local authorities to ensure community feedback received from different sources is recorded.

BFPCA Response: Collection and recording of complaint data is necessary. However this does not resolve the problem. Please elaborate on what actions will be taken to resolve noise complaints, and what regulations will be in place to support those actions.

24. As an emerging industry, there may be significant variation in the noise emissions from drone delivery operators in the future. If drone delivery operations in the future are found to be causing a significant noise impact, this advice may be reviewed.

BFPCA Response: Noise regulations must precede operations. These must include maximum noise limits and penalties for non compliance. Significant variations in noise emissions are not acceptable nor allowable. The advice should not have to be reviewed if the regulatory framework is in place prior to operations. When there are significant variations in noise that are unacceptable, the community should not have to wait while the department reviews its own advice.

6. Failures of the New Parallel Runway, Brisbane Airport

Without addressing the lessons learned from the serial failures of the Brisbane Airport NPR project, the government is apt to repeat them. The information below is offered as evidence that the Department of Infrastructure, Transport, Regional Development, Communication and the Arts, Airservices Australia, and CASA did not, and still does not, have the capacity, the capability, or the will, to rectify the failures of the NPR flight paths. We therefore have no confidence in the Australian government, or its agencies to reasonably and successfully regulate drone operations above our homes.

Despite having had 20 years to design a runway and flight paths that would allow a high capacity airport to co-exist respectfully with the local community, Airservices Australia designed flight paths that maximised the impact on the community. Their highest priority was to ensure maximum capacity for the privatised airport, with absolutely no consideration for the noise pollution and cost to the community. In the same vein, it appears that the introduction of privatised drone deliveries into the airspace above our homes reeks of the same motivation ie. maximise opportunities for growth and profits with little or no consideration for the impact on communities.

The failures can be summarised into the following categories: (this is by no means an exhaustive list):

Failure to justify the NPR with objective business case:



- Lack of objectivity in the business case for a new runway
- Consistent overstating of the benefits and grossly understating the ongoing costs and disbenefits of the new runway
- Failure to account for the transfer of wealth from the community for their loss of amenity, to the airport corporation
- Failure to account for the environmental cost of doubling the capacity, particularly in terms of increased emissions.

Design failures:

- A failure in runway design, choosing a location and direction pointing at the highest density residential area in the State of Queensland.
- A failure in flightpath design whereby no genuine consideration was given to noise impacts
- A failure to adhere to Airservices own design principles, including (but not limited to) separation of arrival and departure paths so that the same community isn't subjected to excessive aircraft noise pollution

Regulatory failures:

- A failure to regulate the airport and airlines in a way that protects communities from negative operational impacts and provides a framework for long term coexistence between the airport, airlines and the community
- A failure to produce a balanced, impartial and accurate EIS
- A failure to validate the assumptions and impacts stated in the EIS
- A failure to provide independent oversight of flight path design
- A failure to consult factually and transparently with the community, and in a timely manner,
- A failure to impartially assess success of the project, with the Post Implementation Review being conducted by the same people who designed the flight paths i.e. marking their own homework.





 A failure to curtail the growth aspirations of the airport corporation to a level that is acceptable to the community

Consultation failures:

- A failure to accurately identify the affected stakeholders, inexplicably missing more than 100 suburbs that would be overflown by future aircraft operations
- A massive failure in the transparency, the depth and the breadth of the 'community consultations'
- A consultation process that appeared to be deliberately deceptive, as noted by the Aircraft Noise Ombudsman in his review of the New Parallel Runway project process.

Operational failures:

The most notable operational failure, is the failure to successfully deliver the only noise abatement measure promised to the community: SODPROPS. In a review by TRAX International, it was revealed that the Air Traffic Controllers did not have sufficient confidence to use SODPROPS operational mode when the airport was operating at 20 flights per hour capacity or less (as declared in the EIS). Failure to appropriately train Air Traffic Controllers (ATC) and failure to put clear procedures and processes in place, means the Brisbane community is subjected to non-stop, 24 hour noise bombardment over their homes. It has been well publicised that Airservices Australia is understaffed and does not have the inhouse skills or staffing levels to do what they promised the community. The Brisbane community does not trust that the Department of Transport and Infrastructure, or Airservices Australia, or CASA, have the skills or staffing to manage the additional complexity of drones in the airspace as well.

Failure to obtain a social license to operate:

 The failures outlined above, along with ongoing operational failures since the opening of the new runway, has meant that Brisbane Airport Corporation has lost its social license to operate.

- A failure to rectify the failures more than 2.5 years after the opening of the runway further solidifies the community's view that the airport has no social license to operate and no competency to do so.

7. BFPCA Recommendations:

Recommendation 1: Reinstate an independent and impartial Regulator for the aviation industry

Amend the Air Services Act 1995 to free Airservices Australia from its regulatory capture by the aviation industry and ensure it protects the human and natural environment, community amenity and residential areas from the effects of the operation and use of aircraft, including drone operations. These regulatory changes must also include strengthening the independence and authorities of the Aircraft Noise Ombudsman (ANO) and integrating the ANO with the Office of the Commonwealth Ombudsman.

Recommendation 2: Engage in genuine consultation with the community

BFPCA recommends that the government appoint an independent body to undertake genuine community consultation and education. This needs to be broad reaching on what is being proposed under the Drone Delivery Services 'project'. This two-way consultation must be conducted through multiple channels over the course of at least a six-month period. The desire and the need for drone delivery services should not be assumed to be *fait accompli*.

Recommendation 3: Go back to basics!

BFPCA demands that the justification for Drone Delivery Services is supported by a detailed analysis of its benefits, costs and risks (economic, social and environmental). This analysis needs to be available for public scrutiny and comment. Furthermore, it should not be progressed before a full independent environmental impact assessment, and social impact assessment, have been conducted, as would be required for any other project with such far reaching implications. This work should inform the agreed and acceptable scope of any drone operations.

Recommendation 4: Address the risks

Noise abatement is a priority for BFPCA and our community and we would like to see a genuine effort to find solutions for existing air traffic as well as for emerging traffic from drones, VTOLs etc before they are allowed around our homes.

While noise is foremost on our agenda, it is just one of the obvious risks that must be seriously addressed by the government prior to any approved operations. Privacy, security and safety would





have equal priority. These are issues of such importance and concern that they cannot be left to 'makeup as you go.'

Recommendation 5: Regulation must have teeth

When things go wrong (e.g. Brisbane flight paths) there must be suitable regulations in place to overcome powerful private interests (e.g. Google, BAC) and enact change that is in the public interest. Once these private corporations have been unleashed, it is clear that reining them in is an impossible task given our current regulatory framework. Regulation with teeth would include, but are not limited to: defined maximum noise limits; frequency limits; penalties for non-compliance, including fines, restrictions to operations, and cancellation of operating license.

In Summary:

Unfortunately, many of the concerns identified within this submission are not new as the department is well aware, and many failures similar to those that occurred in Brisbane have arisen over the past decades, namely in Sydney, Perth, Hobart, Melbourne, the Sunshine Coast, and the Gold Coast. BFPCA hopes that the departments call for public feedback on drone delivery services represents a genuine and meaningful change in practices as it relates to transparent communications, community engagement, noise abatement, environmental impact assessment and social license to operate.

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