



## MEMO

<b>DATE</b>	28 June 2022
<b>TO</b>	Data Science Review Board (DSRB)
<b>PREPARED BY</b>	Jeannie Melville, Head of Accredited Employer Work Visa implementation
<b>APPROVED BY</b>	Stephen Vaughan, Chief Operating Officer, Immigration New Zealand
<b>SUBJECT</b>	<b>ACCREDITED EMPLOYER WORK VISA – USE OF ADEPT FOR AUTOMATED PROCESSING OF MIGRANT GATEWAY</b>

### PURPOSE

This paper is to seek feedback from the Data Science Review Board (DSRB) on Immigration New Zealand's (INZ) intention to use automation for the processing of work visa applications received through the Migrant Gateway of Accredited Employer Work Visa (AEWV) in terms of the [Principles for the Safe and Effective Use of Data](#) within the Advanced Digital Employer-led application Processing and Targeting (ADEPT) system.

### RECOMMENDATIONS

It is recommended that the Board:

- a) **Note** INZ's intention to use automation in the processing of work visa applications in the ADEPT system.

*Noted*

- b) **Note** automation is not for the approval of work visa applications but for parts of the application processing.

*Noted*

- c) **Note** that the proposed automated processing approach for the Migrant Gateway in ADEPT is in line with Principles for the Safe and Effective Use of Data.

*Noted*

- d) **Note** that the risk associated with the proposed automated processing in ADEPT is acceptable.

*Noted*

## BACKGROUND – AEWV

1. Under the new Employer Assisted Work Visa (EAWV) Policy, six existing employer-assisted temporary work visa categories have been replaced with a new policy that introduces a new 'Gateway' system.
2. The three Gateways each have distinct steps where a range of validation checks are completed:
  - a) Employer Accreditation Gateway – this is where employers are accredited to enable them to hire a migrant.
  - b) Job Check Gateway – this is where the job is checked to ensure that no New Zealander is available to fill the job being recruited.
  - c) The Migrant Gateway – this is where checks will be made that the migrant is of good character and health, and is suitably qualified to do the work offered.
3. The new AEWV and the three Gateway process will become compulsory from 4 July 2022. To support transition, INZ started receiving Employer Accreditation applications from 23 May 2022 and Job Check Gateway opened on 20 June 2022. Applications for work visas are scheduled to open on 4 July 2022.
4. As with other visa products already introduced in the ADEPT system (visitor visa and Phase Two of 2021 Resident Visa), ADEPT implementation for AEWV includes the following features:
  - Structured data will be captured directly from employers and visa applicants.
  - Data is validated in the front end where possible **Maintenance of the law**
  - The system introduces activity-based processing (rather than case-based processing) for the Migrant Gateway – activities can be either automated or manual. Case based processing has been retained for the Employer Accreditation and Job Check at this stage.
  - The system uses rules to assess visa applications in accordance with policy criteria (Immigration Instructions).
  - Decline decisions will remain manual. For onshore cases only, a decline decision will follow a fairness and natural justice process, where any potentially prejudicial information is put to an applicant for comment.

## PROCESSING APPROACH

5. Unlike the Employer Accreditation and the Job Check, the work visa is focused on assessing the applicant rather than an employer. Therefore, criteria for automation cannot necessarily be based on categorisation of the employer or on occupational registration.
6. The ADEPT system has been configured to provide the option of automation of decisions to approve applications where INZ determines that a manual assessment is not required.
7. In principle, the lower the immigration risk and level of manual assessment required in decision-making (if any), the greater the potential for automating approvals.

8. Under the policy settings for the work visa, the applicant must be of good character and health. They must also meet the identity requirements. These account for three of the four general activities within the work visa applications.
9. These three activities will only be created for assessment in ADEPT, if there is adverse information that is presented with the application. For example, if someone is deemed to be not of an acceptable standard of health or has adverse information on their police certificate. If there is no adverse information or no adverse declarations made, then the activities will not require manual intervention. The exception to this is the foreign police certificate which must be checked by an INZ staff member.
10. The fourth general work visa activity is risk. This activity will only be created if the applicant triggers a risk rule (in the Business Rules Engine) or has an alert or warning registered against their name.
11. This means that for the four general activities within the work visa application processing, there is the opportunity to automate each specific activity. It is proposed that automation will occur for an application where INZ holds no adverse information, the applicant has not made adverse declaration, and INZ has not received adverse information from the applicant or a third party.
12. In addition to the above, work visa instructions have two specific components which are required to be demonstrated before a work visa can be granted in the Migrant Gateway. These two activities are: job check validation and worker eligibility.
13. The 'job check validation' activity will check that the position offered to the applicant matches the occupation approved for the employer at the Job Check Gateway. The validation includes checking the location of the role, job title, rate of pay, and if the employer holds a valid accreditation.
14. The 'job check validation' activity will require a manual assessment for every application to determine that the clauses within the applicant's offer of employment or employment agreement are not inferior to the employer's declaration at the Job Check Gateway.
15. The 'worker eligibility' activity will check that the applicant has the required skills, qualifications, and experience to do the role that has been offered. This step is important as migrants who obtain a work visa based on an occupation on the green list may qualify for subsequent fast-track residence. However, there are some occupations on the green list for which minimum qualifications are required and must be verified.
16. Manual assessment will occur for the 'worker eligibility' activity for all applications, with additional examination of documents occurring where:
  - the applicant is under 18 years old as permission from their education provider and parental consent are required;
  - the applicant is a chef (chefs must have a certificate at NZQF Level 4 or higher); and
  - the role requires registration (to check that the registration document has been uploaded).
17. In summary, the 'job check validation' and the 'worker eligibility' activities will not be automated for the Migrant Gateway. There are certain components of each activity which will

drop out for a manual assessment. Any further checks that are required by an immigration officer will be detailed in the Standard Operating Procedures in order to ensure processing is as streamlined as possible.

18. INZ already automates approvals for requests for Electronic Travel Authorities based on declarations made and where INZ has no adverse holdings in relation to the requestor. The proposed approach for identity, health and character is similar.
19. Clearly, any adverse information held by INZ, any declaration made by the applicant containing adverse information or the triggering of a risk activity or information from a third party will result in the application being assigned for manual assessment and decision.

## **MONITORING**

20. Following consultation with the DSRB on the Employer Accreditation and Job Check gateways, a recommendation was made to monitor decisions made by the system and to compare these to predefined success measures.
21. Reporting and monitoring for the work visa application will include the usual measures such as numbers of applications received, numbers decided (approved and declined) and timeliness. It will also aim to include information about the percentage of general activities that are able to be automated. Future planning will factor this in to resourcing requirements and expectations.

## **RISK MANAGEMENT, QUALITY OF DECISION MAKING AND ASSURANCE FOR MIGRANT GATEWAY**


22. Immigration risk management of work visa applications has historically focussed on risk associated with the visa applicant. While INZ hold limited data on employers, there are a range of data on migrants which can be used to establish controls to manage the migrant risk at the Migrant Gateway.
23. As such, integration of risk rules is intended to be implemented iteratively as ADEPT collects more structured immigration risk data over time to inform immigration risk identification and treatments.
24. As AEWV will utilise the ADEPT platform, the immigration risk management approach will include a strong focus on collecting data and intelligence in the first year to build the data INZ holds on employers. This will include a heavy focus on post-decision risk monitoring and review which will gather employer specific data through verification of claims made at the Employer Accreditation, Job Check and Migrant Gateways.
25. Under the [MBIE risk management framework](#), the inherent rating for the risk of automating the proposed recommendation for AEWV migrant work visa is identified as 'Low'.
26. Nonetheless, configuration within ADEPT allows for automation to be halted if there are any concerns or risks identified and while further investigation is done.
27. As with the other gateways, the Risk and Monitoring and Review (RMR) model will ensure that:
  - monthly post decision reviews of employers and verifications are conducted;

- data is captured to inform ongoing immigration risk analysis; and
  - INZ's risk governance groups – the Risk Monitoring & Review Governance Group (RMRGG) and the Risk Control Group (RCG) – receive reports of findings, which would inform risk tolerance and controls.
28. Notwithstanding the reputational risk associated with the automated decision making for AEWV, the intended system rules are primarily focused on administering policy settings and processing applications meeting the low immigration risk threshold. Furthermore, INZ's use of information for automated processing is made transparent, as outlined in the Terms of Use for Immigration Online (ADEPT), to maintain public trust and confidence in INZ decisions.
29. To ensure the risk monitoring and review activities can inform risk management across all Gateways, RMR will commence from July 2022.
30. Alongside risk monitoring and post-decision verification, good practice requires ongoing review of the rules to provide assurance that the system continues to operate as expected (System Assurance - SA).
31. From 4 July 2022, INZ will conduct Quality Checks on manual activities and decisions within the work visa process. All staff who are new to INZ or to the processing of this product will be subject to 100 per cent QC until they are deemed competent.

#### **NEXT STEPS**

32. A memo will be submitted to the Deputy Secretary, Immigration for agreement to the proposed automated approach in processing work visas under the AEWV Migrant Gateway. Subject to agreement to the recommendations in that paper, the Head of AEWV will engage with the ADEPT Programme team to ensure the necessary technology adjustments can be made for AEWV.
33. Develop the system assurance model to ensure it covers the three stage gates of AEWV.
34. The Assurance branch will be formally tasked with developing an appropriate Quality Assurance process for AEWV decisions. In addition, the Assurance Branch will work with the Head of AEWV to determine what the QC regime will be for the Migrant Gateway.

The implementation of AEWV visa applications in ADEPT has been assessed against the Principles for the Safe and Effective use of Data and Analytics as follows.

Principles	The ADEPT platform provides opportunities to streamline and partially or fully automate processing of visa applications.
<p><b>Deliver clear public benefit</b> The use of data and analytics must have clear benefits for New Zealanders. Data and data analytics are tools that support decision-making and it's essential that in collecting and using public data, government agencies consider, and can demonstrate, positive public benefits. This includes:</p> <ul style="list-style-type: none"> <li>• considering the views of all relevant stakeholders</li> <li>• ensuring all associated policies and decisions have been evaluated for fairness and potential bias and have a solid grounding in law</li> <li>• embedding a te ao Māori perspective through a Treaty-based partnership approach.</li> </ul>	<ul style="list-style-type: none"> <li>• AEWV visa category is designed with streamlined policy criteria in order to reduce processing and assessment.</li> <li>• Migrants and their employers will benefit from efficient, effective, and consistent decision making.</li> <li>• Only applications meeting the straightforward policy criteria and where sufficient good quality data is available to enable a rules-based assessment will be fully automated; this will free up processing resources for other assessments that require human judgement and decision making.</li> <li>• Any assessments that require human judgement (i.e. the criteria is a judgement call) will always require a manual assessment.</li> <li>• Decline decisions will not be automated.</li> <li>• The <a href="#">Immigration Act</a> enables automated processing of visa applications; Immigration Instructions, which currently enable fully automated processing of certain visitor visa application types, will be updated to encompass Residence class visas.</li> </ul>
<p><b>Ensure data is fit for purpose</b> Using the right data in the right context can substantially improve decision-making and analytical models, and will avoid generating potentially harmful outcomes. Decision-makers need to be aware of how data is collected and analysed, including the accuracy, precision, consistency, and completeness of data quality, and take special care when re-using data that was originally collected for another purpose. They should also be conscious of analytical models constructed to interpret data, and any automated decision-making occurring as part of this process. Ensuring data and analytical models are fit for purpose will help avoid risks like bias or discrimination.</p>	<ul style="list-style-type: none"> <li>• The AEWV application form has been designed to ensure the right data is gathered to support decision making, including automated processing.</li> <li>• The ADEPT Programme objectives included improving data quality by using more structured data, including through smart forms, data validation, reference data tables, and limiting the manual transcription of data.</li> <li>• Improved data quality in ADEPT would gradually reduce the risk of poor quality of data in legacy systems where there is adverse information may potentially be missed (e.g., deleted alert/warning that may still be relevant).</li> <li>• <b>Maintenance of the law</b></li> <li>• The Business Rules Engine (BRE) rules are being reviewed for AEWV gateways.</li> <li>• The BRE rules do not result in an automated decision; a manual assessment activity is created if a BRE rule is triggered.</li> <li>• Additional business rules are implemented within ADEPT; the “decision trees” that inform the implementation of these business rules have been drafted by subject matter experts and have been reviewed and tested through a formal governance process.</li> <li>• Continuous review and fine tuning of BRE rules would alleviate public concerns regarding bias or discrimination.</li> <li>• A defined evaluation process will be followed, including review of manual decisions to ensure the system is working as expected, and that data is of good quality/quantity and fit for purpose; the evaluation will sit with the ADEPT Operations Team (AOT), and report to INZ senior leadership with recommendations about proceeding to introduce full implementation.</li> </ul>
<p><b>Focus on people</b> Keep in mind the people behind the data and how to protect them against misuse of information. It's essential to consider the privacy and ethical implications of any analytical process that draws on data collected about people, as using data and analytics for decision-making can have real-life impacts. Consider the methods used to protect personal identifying information and preserve the security of any output. Combining multiple anonymous datasets can re-identify individual people. Personal information should only be kept for as long as necessary.</p>	<ul style="list-style-type: none"> <li>• A Privacy Impact Assessment has been prepared for ADEPT, covering collection of information and processing of visas.</li> <li>• A decision to decline a visa application will always be made by an immigration officer, following processes for fairness and natural justice.</li> <li>• The ADEPT system is subject to MBIE ICT security accreditation processes.</li> <li>• Standard MBIE and Public Records Act policies for retention and disposal apply.</li> </ul>
<p><b>Maintain transparency</b> Transparency supports collaboration, partnership, and shared responsibility, and is essential for accountability. This includes ensuring New Zealanders know what data is held about them; how it's kept secure; who has access to it; and how it's used.</p>	<ul style="list-style-type: none"> <li>• Visa applicants are required to completed a declaration that specifies how their information will be used;</li> </ul> <div style="text-align: center;">  <p>VV - 15 - Review and declare - Edited</p> </div>

<p>Consultation with stakeholders and Māori as partners ensures manaakitanga (data users show mutual respect), and kaitiakitanga (New Zealanders are mindful of their responsibilities and the communities they source data from), by making sure all data uses are managed in a highly trusted, inclusive, and protected way.</p> <p>Data use and analytical processes should be well documented and in line with all relevant legislation, and state sector guidelines.</p> <p>Explanations of decisions – and the analytical activities behind them – should be in clear, simple, easy-to-understand language.</p>	<ul style="list-style-type: none"> <li>The Terms of Use for Immigration Online (ADEPT) include information about automated processing.</li> </ul> <p><b>“How we use automated systems to support immigration processes</b>  <i>For people who submit visa applications using our online systems, our systems use information provided by visa applicants, alongside information already held in immigration records, to streamline some processes. INZ uses automated systems to support efficient and consistent decision making.</i></p> <p><i>Partially or fully automated processing activities include:</i></p> <ul style="list-style-type: none"> <li><i>establishing or verifying identity using biographic and biometric information from the visa application and INZ records</i></li> <li><i>assessing whether additional information is required from an applicant (for example passports or medical information) and requesting that information</i></li> <li><i>interacting with sponsors to seek agreement to sponsorship undertakings</i></li> <li><i>automated risk assessment segmenting applications for automated or lighter touch processing, or for verification and manual risk assessment</i></li> <li><i>assessing the application against the criteria for the particular category of visa</i></li> <li><i>approving the grant of the visa with the appropriate conditions for travel and stay in New Zealand</i></li> <li><i>notifying the outcome of the decision and issuing visa-related documentation.</i></li> </ul> <p><i>A decision to decline a visa application will always be made by an immigration officer.”</i></p> <ul style="list-style-type: none"> <li>Visa decision letters include a short paragraph that explains the decision involved some automated processes.</li> <li>Documentation: “Decision trees” determine how business rules are applied within the system. These are written in a way, such that the decision process can be understood.</li> <li>MBIE undertook open public consultation on the proposed changes to the employer-assisted temporary work visa system and regional workforce planning. The consultation period ran from 18 December 2018 to 18 March 2019 and informed final policy decisions. As part of the consultation process, officials also met in person with industry organisations and individual businesses from key sectors (including aged care, construction, dairy, fisheries, horticulture and viticulture, road freight, tourism and hospitality and training) as well unions, local and regional bodies, economic development agencies, migrant organisations and immigration advisers.</li> </ul>
<p><b>Understand the limitations</b></p> <p>While data is a powerful tool, all analytical processes have inherent limitations in their ability to predict and describe outcomes.</p> <p>These limitations are sometimes not evenly distributed, meaning they can perpetuate or intensify poor outcomes for particular groups.</p> <p>An awareness of these limitations is essential when analysing data.</p>	<ul style="list-style-type: none"> <li>A decision to decline a visa application will always be made by an immigration officer, following processes for fairness and natural justice.</li> <li>Before full automation is “switched on”, a defined number of applications will be processed manually to ensure the system is working as expected and to assess that data is good quality, sufficient, and fit for the purpose.</li> <li>Data analytics will not form a part of automated decision making in AEWV; automation will only be used where the policy criteria are straightforward.</li> <li>Quality checks will be continued to be performed on a sample of all decisions including fully automated decisions, to ensure alignment.</li> </ul>
<p><b>Decision-makers must be fully informed.</b></p> <p>Developing data capability helps to create depth of understanding and implement the most useful data tools while keeping any limitations in mind.</p> <p>Regular assessments to check for bias and other harmful elements, and address any over-reliance on correlations, are essential in the development and operation of analytical processes.</p> <p>Feeding assessment outcomes back into the design of systems and processes can help ensure unfair or discriminatory outcomes aren’t generated.</p>	<ul style="list-style-type: none"> <li>Automation will be introduced gradually, and subject to oversight, testing and checks.</li> <li>Formal governance process to reduce mandatory manual checks and increase the rate of automation based on appropriate assurance that the system is behaving as expected</li> </ul>
<p><b>Retain human oversight</b></p> <p>Analytical processes are a tool to inform human decision-making and should never entirely replace human oversight.</p>	<ul style="list-style-type: none"> <li>Assessments requiring human judgment will not be automated; the system will only process those activities that can be automated, and drop others out for manual processing</li> <li>Visa applicants have statutory appeal rights if their application is declined</li> </ul>

Ensure significant decisions based on data involve human judgement and evaluation, and that automated decision-making processes are regularly reviewed to make sure they're still fit for purpose.

Decision-makers should approach analytical tools with an appropriate awareness of limitations of data quality and other sources of error.

To ensure accountability, decisions based on analytical methods or automated processes affecting people should be openly disclosed, and appropriate review and feedback mechanisms developed to preserve fundamental rights and freedoms.

- The INZ Complaints process is available to visa applicants, and decisions have been made about how the Complaints process applies in INZ's new operating model, which includes automated and activity based processing
- See section above on maintaining transparency.