Transport Professionals Competency Framework

Consultation Discussion Paper | September 2026

Transport Professionals Association

Contents

Transport Professionals Competency Framework

1 Purpose

This framework establishes a nationally consistent and internationally informed competency framework for transport professionals in Australia. It sets out the core competencies, cross-disciplinary knowledge and discipline-focused knowledge areas relevant to transport planning, transport modelling and transport engineering, recognising the distinct and complementary contribution of each discipline to transport outcomes.

The framework is intended to support capability development, role design, professional growth, education and CPD alignment, and a shared understanding of common expectations across the profession. It also provides a foundation for future professional recognition and credentialling, while helping employers, practitioners and educators benchmark capability and strengthen transport practice across disciplines.

This framework is intended for transport professionals at all career stages, including emerging and early-career practitioners. While the competency statements describe the expectations of a capable transport professional, individuals may demonstrate these competencies at different levels of depth depending on experience, role and discipline pathway.

2 Strategic Context

Transport professionals play a critical role in shaping decisions and outcomes that affect safety, accessibility, economic productivity, sustainability and quality of life, creating a strong imperative to elevate professionalism and strengthen public trust across the profession.

In this context, the development of this framework responds to the Transport Professionals Association (TPA) Strategy and Implementation Plan (2025–2028), which emphasises stronger professional capability, clearer expectations and pathways, and the continued professionalisation of the transport workforce in Australia.

Consultation with employers, practitioners and educators reinforced the need for a shared framework that defines common expectations across transport planning, transport modelling and transport engineering, while recognising discipline-specific knowledge and practice. In turn, the framework can support capability development, workforce planning, CPD design and tertiary education alignment, and may also provide a foundation for future professional recognition, credentialling and, over time, certification pathways across the transport profession.

3 About Transport Professionals – collaboration between disciplines

Transport professionals work across a connected set of disciplines that together shape, test and deliver transport outcomes. Transport planning, transport modelling and transport engineering each have distinct purposes, methods and outputs, but are most effective when applied together as part of an iterative, evidence-informed process.

> **Transport planning** focuses on the ***what*** and ***why*** of transport systems. It is concerned with long-term strategy, policy and future community needs, including how transport can support broader economic, social, environmental and land use objectives. Transport planners typically consider demographic change, travel behaviour, land use patterns, accessibility, funding priorities and public policy to help shape the future direction of cities, regions and places.
>
> **Transport modelling** focuses on the ***what if***. It provides the analytical and technical tools used to create scenarios that test how policies, infrastructure changes and land use may affect future travel demand and network performance. Transport modellers use data, assumptions and specialist software to simulate how people and goods move through a system, including where trips are generated, where those trips are distributed, how travellers choose between modes, and how demand is assigned across roads, public transport and other networks.
>
> **Transport engineering** focuses on the ***how***. It translates plans and modelling outputs into physical, operational and safety outcomes through the design, management and implementation of transport infrastructure and systems. Transport engineers work on matters such as road geometry, intersections, signals, traffic management, safety treatments, parking, freight access and operational performance to ensure that networks function safely, efficiently and in context.

Together, these disciplines form a continuous process – refer Table 1. Planning identifies strategic direction and desired outcomes, modelling tests options and forecasts their implications, and engineering translates those directions into physical and operational solutions. In practice, the relationship is iterative: engineering constraints can reshape planning choices, modelling can refine both planning and design assumptions, and changes in policy, land use or community expectations may require all three disciplines to work together to adapt solutions over time.

Discipline	Core Question	Primary Purpose	Typical Focus	Common Outputs	Typical Backgrounds
Transport planning	What and why?	Sets long-term direction, policy intent and strategic priorities.	Land use and transport integration, accessibility, mode shift, investment priorities, policy development and stakeholder engagement.	Strategies, policies, plans, business cases, corridor studies and network plans.	Urban planning, geography, engineering, modelling, economics, public policy and related fields.
Transport modelling	What if?	Tests options, scenarios and likely network or demand impacts.	Travel demand forecasting, operational and network modelling and simulation, scenario testing and sensitivity analysis.	Forecasts, model outputs, scenario assessments, inputs to economic appraisal and business case development, technical reports and evidence for decision making.	Mathematics, physics, statistics, data science, engineering, economics and computer science.
Transport engineering	How?	Designs, delivers and manages safe and efficient infrastructure and operations.	Investigations, road geometry, intersections, signals, safety treatments, car parking design and planning, traffic impact assessments, freight access, traffic management and operational performance.	Investigations, designs, layouts, operational plans, signal settings, safety audits and implementation plans.	Civil engineering, transport engineering and related engineering design, and operational disciplines.

Table 1: Defining the Disciplines

4 Structure of the Framework

The framework is structured to support a shared understanding of capability across the transport profession and to provide a practical foundation for role design, professional development, CPD alignment and, over time, professional recognition and credentialling pathways.

These competencies describe the capability expected of transport professionals. Emerging practitioners may demonstrate these competencies through supervised practice, foundational tasks, or developing judgement. Senior practitioners may demonstrate them through leadership, integration and decision-making.

Competencies and knowledge areas are grouped into three domains:

- **Professional and Personal Competencies** – competencies expected of all transport professionals that support ethical, effective and adaptable practice across roles, sectors and career stages.
- **Core Cross-Disciplinary Transport Professional Knowledge** – foundational knowledge required by all transport professionals to support integrated practice, sound judgement and shared expectations across disciplines.
- **Discipline Focused Core Knowledge Areas** – knowledge specific to key transport disciplines, providing clearer expectations for specialist practice while recognising that many professionals will work across more than one discipline over time.

Consultation questions

- Is the overall structure of the framework clear, practical and easy to navigate?
- Do the three domains provide an appropriate foundation for defining capability for transport professionals across transport planning, modelling and engineering?

5 Professional and Personal Competencies

Competencies expected of all transport professionals.

1. **Professionalism and Ethics**: Adherence to professional standards, codes of conduct, legal requirements and accountability.
2. **Communication**: Clear written, verbal and visual communication for technical and non-technical audiences.
3. **Engagement and Consultation**: Effective consultation, negotiation and relationship-building with stakeholders, communities and decision-makers.
4. **Collaboration and Teamwork**: Working effectively in multidisciplinary teams.
5. **Problem Solving and Critical Thinking**: Defining problems clearly, using evidence-based reasoning and developing sound solutions.
6. **Strategic Thinking**: Considering long-term impacts, trends and alignment with broader organisational or policy objectives.
7. **Risk and Uncertainty Management**: Identifying and managing risks and uncertainty in transport planning contexts.
8. **Continuous Learning**: Commitment to ongoing professional development and reflective practice.
9. **Adaptability and Resilience**: Managing change and uncertainty in complex environments.
10. **Technology and AI Literacy**: Understanding and responsible use of digital tools, data and AI in professional practice.

Consultation questions

- How appropriate are the proposed professional and personal competencies for all transport professionals?
- How clearly are these competencies described?
- How relevant will these competencies be over the next 10 years?
- Are any competencies missing, unnecessary, duplicated or overemphasised?

6 Core Cross-Disciplinary Transport Professional Knowledge

Foundational knowledge required by all transport professionals, focused on the key knowledge areas that are consistent across planning, modelling and engineering.

1. **Transport Systems, Networks and Place**: Understanding how transport systems function across modes, networks, places and scales, including the interaction between infrastructure, services, operations, land use and urban form in shaping access, movement and performance across road, public transport, active transport, freight and emerging mobility networks.
2. **Policy, Governance and Delivery Context**: Understanding the legislation, institutional arrangements, regulatory settings, governance frameworks, funding context and delivery environment that shape transport decision making and implementation.
3. **Data, Evidence and Professional Judgement**: Understanding the role of data, evidence, assumptions and analysis in transport practice, and applying critical thinking and professional judgement to support sound, transparent and defensible decisions.
4. **Transport Appraisal and Business Case Context:** Understanding how transport initiatives are assessed, appraised and prioritised, including the role of business cases, cost–benefit analysis and national and jurisdictional appraisal guidance, and how each discipline contributes evidence to investment decisions.
5. **Risk, Safety and Uncertainty**: Understanding how risk, uncertainty, sensitivity and safety considerations affect transport decisions, including the Safe System approach and the need for proportionate analysis and judgement.
6. **Project Management**: Understanding the key phases of project management, including initiation, planning, executing, monitoring and closing, and applying this knowledge to support effective delivery of transport policies, programs and projects. This includes developing clear and effective project scopes, defining deliverables, identifying dependencies and risks, and using appropriate tools and techniques to manage time, budget, resources and progress.
7. **Accessibility, Equity and Sustainability**: Understanding how transport systems affect access, affordability, inclusion, environmental outcomes, resilience and place quality, and applying principles that support equitable, sustainable and lower-impact outcomes, including through public transport, walking, cycling and other active transport choices.
8. **Cross-Disciplinary Integration**: Understanding the contribution of planning, modelling, engineering and related disciplines, and integrating different forms of expertise and evidence to support coordinated practice and decision making. This includes applying systems thinking to understand transport challenges and opportunities within interconnected economic, social,

environmental, land use and infrastructure systems, and recognising the interdependencies, trade-offs and broader impacts of transport decisions.

Consultation questions

- How relevant are the proposed cross-disciplinary knowledge areas for transport professionals generally?
- Should all transport professionals be expected to possess this core knowledge regardless of discipline?
- Are any cross-disciplinary knowledge areas missing, unclear or too detailed?
- Which areas should be prioritised for CPD, education alignment or early-career development?

7 Discipline Focused Core Knowledge Areas

7.1 Core Transport Planning Knowledge

Core knowledge required by most transport planning professionals.

1. **Transport Policy and Governance**
   Understanding legislation, institutional arrangements, governance frameworks, policy settings and funding mechanisms that shape transport planning and delivery.
2. **Integrated Land Use and Transport Planning**
   Understanding how transport and land use interact across metropolitan, regional, corridor, precinct and local scales to shape accessibility, urban form, development patterns and infrastructure need.
3. **Network, Corridor and Precinct Planning**
   Understanding strategic planning approaches for corridors, precincts and networks, including growth forecasting, movement and place outcomes, infrastructure sequencing and investment prioritisation.
4. **Community and Place-Based Planning**
   Understanding how communities experience transport systems and applying engagement, co-design and place-based approaches to shape transport outcomes that respond to local needs and context.
5. **Integrated Transport Systems**
   Understanding how modes, services, networks and supporting infrastructure interact to deliver safe, efficient, sustainable and accessible movement of people and goods, including the role of public transport, walking, cycling and other active transport networks in an integrated transport system.
6. **Transport Technology, Emerging Mobility and Future Systems**
   Understanding how technological change, digital services, automation and new mobility models are shaping transport networks, services, user behaviour, accessibility and network performance. This includes applying that knowledge to advise businesses and governments on investment, policy and system planning.
7. **Travel Behaviour and Demand Management**
   Understanding the factors that influence travel demand and behaviour, including demographics, land use, network supply, pricing, policy settings and changing activity patterns. This includes the use of pricing, parking, information, incentives and policy measures to manage demand and support desired transport outcomes.
8. **Transport Modes**
   Understanding the characteristics, capabilities, constraints and operating contexts of different transport modes, including public transport, walking, cycling, road, freight and emerging mobility options, and their suitability for different users, places and trip purposes.

9. **Freight and Logistics Planning**
   Understanding freight demand, supply chains, logistics systems and the planning of efficient freight movement while balancing community, environmental and economic outcomes.

10. **Equity and Accessibility**
    Understanding how transport systems affect inclusion, access, affordability and participation, and applying principles that support equitable, accessible and culturally responsive outcomes.

11. **Sustainability and Environmental Outcomes**
    Understanding how transport planning influences emissions, energy use, resilience, environmental quality and place outcomes, and applying principles of sustainable mobility and climate-responsive planning.

12. **Evidence-Based Decision Making**
    Sourcing, validating, interpreting and applying qualitative and quantitative evidence to inform planning, prioritisation and investment decisions.

13. **Spatial Analysis and Mapping**
    Understanding how to use spatial analysis, mapping tools and mapping datasets to communicate transport planning issues clearly and support evidence-based decision making.

14. **Working with Transport Models and Forecasts**
    Understanding the role, capabilities and limitations of transport models as planning evidence, including what different model types can and cannot answer, framing scenario and forecasting questions when specifying modelling, and critically interrogating and applying model outputs and forecasts in planning advice.

15. **Lifecycle Integration**
    Understanding how planning interfaces with appraisal, design, delivery, operations, maintenance and review across the life of transport policies, programs and projects.

16. **Cross-Disciplinary Awareness**
    Understanding the role of related disciplines, including planning, engineering, modelling, economics, urban design and engagement, to support integrated practice and effective collaboration.

17. **Evaluation Principles**
    Understanding how transport policies, programs and projects are appraised, monitored and evaluated through the definition of outcome measures, performance monitoring, post-implementation reviews and benefits realisation to assess outcomes, benefits, impacts and value for money.

18. **Transport Economics**
    Understanding the economic principles and market settings that shape transport planning and decision making, including supply and demand, supply chains, pricing, funding and financing models, economic appraisal, willingness to pay, value for money, and the implications of different ownership and delivery models, including privatisation and government

ownership. This knowledge supports informed decisions about travel demand, network planning, mode choice, equity, integrated land use and transport planning, and the prioritisation of transport policies, programs and projects.

19. **Inclusive Engagement and Universal Design**
Understanding and applying community and stakeholder engagement and universal design processes in transport planning and decision making to ensure the views, experiences and needs of all people are considered, including children, young people, older people, people with disability and other diverse users.

20. **Indigenous Engagement and Cultural Competence**
Engaging respectfully with Aboriginal and Torres Strait Islander peoples, recognising Country, culture and community perspectives, and supporting planning processes and outcomes that are culturally informed and appropriate.

Consultation questions

- How well does the planning section reflect contemporary transport planning practice?
- Which planning knowledge areas are most important for contemporary and future practice?
- Are any planning knowledge areas missing, excessive, duplicated or too detailed?
- Does the section appropriately balance strategic, technical, engagement, equity, sustainability and technology-related knowledge?
- What level of knowledge of each of these is needed to be considered a competent transport professional – is it a level of proficiency in each/all or in a portion of them?

7.2 Core Transport Modelling Knowledge

Core knowledge required by most transport modelling professionals.

1. **Transport Modelling Purpose and Role in Decision-Making**
   Understanding how modelling supports infrastructure and service investment assessments and decisions, including where modelling sits alongside political, social, environmental and financial considerations as one input to decision-making.

2. **Model Types, Scales and Appropriate Application (Strategic, Meso, Micro and Pedestrian)**
   Understanding the differences between strategic (macro) travel demand models, mesoscopic models, microscopic simulation models, intersection models and pedestrian models, and when each is fit for purpose, including the trade-offs in behavioural representation, network detail, data needs and risk.

3. **Network and System Representation Across Modes**
   Understanding how networks, services, capacity constraints and interactions between modes are represented (road, public transport, freight and commercial vehicles, walking and cycling and pedestrian environments), including the implications of how services, links, nodes, intersections, centroids, stops, stations and connectors are coded and used.

4. **Travel Demand, Behaviour and Forecasting Foundations**
   Understanding the travel demand and behavioural concepts that underpin forecasting, including how assumptions about population, employment, land use, pricing, network supply and traveller response (including induced travel demand) shape future scenario modelling, and awareness of the main demand modelling frameworks, including trip-based (four-step) and activity- or tour-based approaches.

5. **Land Use–Transport Interaction (LUTI) Modelling Concepts**
   Understanding how land use models and transport models interact in LUTI approaches, including the role of accessibility, household and employment location responses, and the need to maintain control totals and scenarios.

6. **Emerging Analytical Methods and AI-Assisted Modelling**
   Understanding the role, limitations and appropriate application of emerging analytical methods in transport modelling, including machine learning, synthetic populations, AI-assisted forecasting and calibration, and other data-driven approaches, while applying professional judgement, transparency and validation to ensure outputs remain fit for purpose and defensible.

7. **Pedestrian Modelling Foundations (Movement, Capacity and Place Context)**
   Understanding pedestrian demand and movement concepts (flows, densities, delay, level of service and queuing), where pedestrian modelling is appropriate (for example, stations and platforms), and how the level of risk

associated with pedestrian modelling applications should be recognised and reflected in reporting and decision contexts.

8. **Freight and Commercial Vehicle Modelling Foundations**
   Understanding how freight and commercial vehicle movements are represented in transport models, including commodity-based and vehicle trip-based approaches, the distinct characteristics of light commercial and heavy vehicle demand, the data sources available for freight and their limitations, and when dedicated freight modelling is warranted alongside person-travel models.

9. **Data Sources, Quality and Fitness for Purpose**
   Understanding the data used to build and apply transport models, including surveys, counts, travel times, patronage, land use and demographic data, and emerging sources such as mobile network, GPS and Bluetooth movement data; the collection, sourcing, cleaning and preparation of data, including privacy and licensing considerations; and how data quality, sample size, collection period, structure, gaps and deficiencies can influence model development, outputs and confidence in results.

10. **Assumptions, Limitations and Transparency**
    Understanding why assumptions and limitations must be clearly articulated and documented, including the point at which model limitations may be exceeded and outputs should be qualified or not relied upon. This includes how sources of error and uncertainty in inputs, parameters and methods should be acknowledged and communicated to decisionmakers and what "transparent" model development and use means in practice, including reproducibility, version control and disclosure of calibration and validation adjustments.

11. **Computational, Software and Workflow Skills**
    Understanding the computational and software capabilities that increasingly support transport modelling practice, including programming, automation, databases, APIs, cloud computing, version control and reproducible workflows, and applying these skills to improve efficiency, quality assurance, collaboration and transparency.

12. **Model Development Structure and Governance**
    Understanding the key components of developing models (segmentation, zoning, network coding, parameter choices and documentation), and the role of governance practices that support consistent and defensible modelling.

13. **Calibration, Validation and Reasonableness Checking**
    Understanding the purpose of calibration and validation, including the use of observed and independent data, benchmarks, reasonableness checks, assignment convergence and model stability, and appropriate performance measures and diagnostics, such as GEH, RMSE and R-squared, to establish confidence that a model is fit for its intended purpose without overfitting demand to observed counts.

14. **Scenario Development, Sensitivity Testing and Uncertainty**
    Understanding how scenarios are constructed (land use, policy and network assumptions), why sensitivity testing is required, and how uncertainty should be explored and communicated (including consideration of disruptive technology risk where relevant).

15. **Outputs, Performance Measures and Interpretation**
    Understanding common outputs (e.g., volumes, passenger loads, boardings and alightings, mode share, walk and cycle movements, queues, delays, travel times, VKT/VHT and related indicators) and the risks of misinterpretation if outputs are presented without context, qualifiers and assumptions.

16. **Reporting Standards: Communicating Results to Avoid Misinterpretation**
    Understanding the importance of presenting outputs in ways that minimise the risk of misinterpretation, for example by rounding results, clear communication of assumptions and uncertainty, providing ranges rather than single numbers, limiting significant figures, and applying practical judgement to interpretation.

17. **Risk-Based Application and Reporting Expectations**
    Understanding that modelling tasks vary in risk and that reporting, assurance and review should scale accordingly, from lower-risk strategic assessments to higher-risk forecasting and operational applications, including the value of independent review where appropriate.

18. **Model Choice and Guidance-Aware Practice**
    Understanding that modelling guidance varies by jurisdiction and application (for example, the ATAP guidelines and state and territory modelling guidance), and that model selection should be informed by purpose, risk, local authority expectations, available empirical data and the suitability of the chosen approach for the decision at hand.

19. **Professional Ethics in Modelling Practice**
    Understanding and applying professional obligations in modelling practice, including integrity, duty of care, transparency, management of conflicts of interest, support for informed decision-making, and the need to challenge misuse or misrepresentation of modelling outputs.

20. **Professional Expertise and Scope of Competence**
    Understanding the need for appropriate qualifications, experience and continuing professional development, providing advice only within one's competence, and seeking appropriately skilled support or review where additional expertise is required.

21. **Cross-Disciplinary Integration and Lifecycle Awareness**
    Understanding how transport modelling interfaces with planning, engineering, appraisal and project stages, from early strategy and option development through design, delivery, operations and monitoring, to support integrated and context-aware decision making.

Consultation questions

- How well does the modelling section reflect contemporary transport modelling practice?
- Does the framework appropriately address emerging capabilities such as AI-assisted modelling, automation and advanced analytics?
- Are any important modelling knowledge areas missing, overly detailed or unclear?
- Does the section appropriately emphasise transparency, assumptions, validation, professional judgement, ethics and risk-based reporting?
- What level of knowledge of each of these is needed to be considered a competent transport professionals – is it a level of proficiency in each/all or in a portion of them?

7.3 Core Transport/Traffic Engineering Knowledge

Core knowledge required by most transport/traffic engineering professionals.

1. **Transport Policy, Standards and Governance**
   Understanding relevant legislation, standards, guidelines and governance frameworks influencing traffic engineering practice in Australia at the national, state and territory, and local levels, including design standards (such as Austroads guides and relevant Australian Standards), road rules and regulatory processes.

2. **Road Network Function and Hierarchy**
   Understanding the functional and operational classification and hierarchy of road networks, and how different road types operate within urban, regional and rural contexts.

3. **Transport Systems and Network Planning**
   Understanding how transport systems function across networks, including capacity, impedance functions, network topology, graph theory and accessibility measures such as travel time catchments and access indices.

4. **Traffic Flow Theory and Operations**
   Understanding the fundamental principles of traffic flow, including speed–flow–density relationships, capacity, level of service, queuing, bottleneck detection, shockwave analysis, and how these influence network performance and operational outcomes.

5. **Intersection and Network Performance**
   Understanding how intersections and links operate as part of a network, including performance measures such as degree of saturation, delays, queue length, level of service concepts, capacity analysis and design, public transport priority, pedestrian and cycling performance, and factors affecting efficiency, safety and reliability.

6. **Working with Traffic Analysis and Modelling Tools**
   Understanding the role, capabilities and limitations of traffic analysis and modelling tools, including what different model types can and cannot answer, including their assumptions and limitations.

7. **Road Geometry and Pavement Design**
   Understanding the principles of road geometry and pavement design, including horizontal and vertical alignment, cross-sections, sight distance, speed environments and management, drainage interfaces and the application of relevant design standards to support safe, efficient and context-appropriate outcomes.

8. **Parking Design and Management**
   Understanding the principles of on-street and off-street parking design and parking management, including parking demand and supply, kerbside allocation, access and circulation, user safety, loading and servicing needs, and the effects of parking controls on traffic operations, access and broader transport outcomes.

9. **Traffic Data and Analysis**
   Understanding the collection, interpretation and application of traffic data, including volumes, speeds, travel times, turning movements, vehicle classification and origin–destination data, to support evidence-based decision making.

10. **Road safety**
    Understanding road safety principles, crash causation factors and the Safe System approach, including the interaction between speed, infrastructure, vehicles and human behaviour, and applying these principles through safety engineering activities such as road safety audits, road safety inspections, crash analysis and black spot identification to minimise the risk of fatal and serious injury.

11. **Human Factors and Road User Behaviour**
    Understanding how different users (drivers, pedestrians, cyclists and others) perceive, interpret and respond to the road environment, including visibility, decision-making and compliance.

12. **Traffic Control and Management**
    Understanding the role and function of traffic control devices and management strategies, temporary traffic management design and solutions for work zones, construction staging, disruption and/or events, , including signals, signs, line marking and active traffic management systems while addressing safety for all users.

13. **Active Transport and Vulnerable Road Users**
    Understanding the needs and characteristics of pedestrians, cyclists and other vulnerable users, and how traffic engineering design and operations influence safety, access, comfort, continuity and network connectivity for walking, cycling and other active transport movements.

14. **Freight and Heavy Vehicle Considerations**
    Understanding the operational needs of freight, buses, public transport services and heavy vehicles, including access, routing, turning movements, kerbside requirements, priority treatments and interaction with other road and rail users.

15. **Travel Demand and Network Interaction**
    Understanding how travel demand is generated, distributed and managed, and how land use, development intensity, network supply, parking and demand management measures affect traffic conditions, transport assessments and overall network performance. This includes applying traffic impact assessment methods, estimating development-generated traffic, assessing network capacity and operations, identifying mitigation measures, and understanding the role of transport assessment in development approval processes.

16. **Sustainability and Environmental Considerations**
    Understanding how traffic engineering decisions influence emissions, noise, energy use, urban amenity and resilience, and how design and operational measures can support more sustainable, lower-impact and place-sensitive transport outcomes within the practitioner's sphere of control.

17. **Technology and Intelligent Transport Systems (ITS)**
    Understanding the role of technology, data and intelligent transport systems in monitoring, managing and optimising traffic operations.

18. **Lifecycle Awareness and Operational Context**
    Understanding how traffic engineering interacts with planning, design, construction, operations, asset management and maintenance across the asset lifecycle and with due regard to the local context and climate factors.

Consultation questions

- How well does the transport and traffic engineering section reflect contemporary engineering practice?
- Does the balance between technical engineering content and broader transport outcomes feel appropriate?
- Are any engineering knowledge areas missing, too detailed, duplicated or better located elsewhere?
- Does the section appropriately recognise safety, operations, active transport, freight, technology, sustainability and lifecycle considerations?
- What level of knowledge of each of these is needed to be considered a competent transport professionals – is it a level of proficiency in each/all or in a portion of them?

8 Application of the Framework

The framework is intended to be applied in practical and strategic ways across the transport profession. It can support employers in defining role expectations, benchmarking capability, identifying development needs, and strengthening workforce planning across transport planning, transport modelling, and transport engineering. It can also support practitioners to understand common expectations, reflect on their current capability, plan professional development and navigate growth across or between disciplines, including those entering the profession or progressing through early career stages.

The framework may also be used to inform CPD design, guide tertiary education and training alignment, and provide a shared reference point for collaboration between industry, government, educators and the profession. Over time, it may provide a foundation for more formal approaches to professional recognition and credentialling, including structured recognition pathways and, potentially, certification models, while strengthening consistency, capability and confidence across transport practice in Australia.

As the transport profession becomes more complex and multidisciplinary, professional recognition and credentialling are emerging as important differentiators for practitioners. They can help demonstrate verified capability, ethical commitment, currency of knowledge and commitment to ongoing professional development, particularly in a workforce where people may enter from different disciplinary, educational and career pathways. For employers, clients and governments, recognised credentials can provide greater confidence in professional capability and a clearer basis for recruitment, progression and procurement decisions.

For professional membership associations, this creates both an opportunity and a strategic imperative. A clear competency framework can underpin credible pathways for recognition and credentialling, strengthen the value proposition of membership, support more targeted education and CPD offerings, and help associations play a stronger role in defining standards for professional practice. In an increasingly competitive professional environment, the ability to connect membership with recognised capability, structured development pathways and trusted credentials may become an important differentiator for associations seeking to remain relevant, influential and useful to both members and the broader sector.

Consultation questions

- How could the framework be applied most usefully by practitioners, employers, educators and government?

- Which uses should TPA prioritise first: self-assessment, CPD planning, role design, education alignment, workforce planning or recognition pathways?
- What support, tools or guidance would be needed to make the framework practical and easy to adopt?
- Would you want to apply the framework to yourself and/or your team?

9 Future Development and Recognition Pathways

This framework is not, in itself, a credentialling scheme. However, it provides an important foundation for the future development of professional recognition and credentialling pathways that are clearer, more consistent and better aligned to the evolving needs of the transport profession. As transport work becomes more complex, multidisciplinary and publicly scrutinised, there is increasing value in mechanisms that help practitioners demonstrate verified capability, ethical practice and commitment to ongoing professional development.

Professional recognition and credentialling are emerging as important differentiators in many professions because they help signal capability in a workforce with increasingly diverse entry points, qualifications and specialisations, including those beginning their careers in transport. They can support practitioners by making experience and competence more visible, support employers, clients and governments by providing greater confidence in capability and currency, and support procuring agencies by offering a more consistent basis for appointment, progression and procurement decisions. In this context, a shared competency framework creates a practical platform for more transparent and credible recognition and credentialling pathways over time.

For professional membership associations, this is strategically significant. Associations are increasingly expected to provide more than networking and general professional development; they are also being asked to help define standards, verify capability, support career progression and maintain public and industry confidence in professional practice. Well-designed recognition pathways and credentialling models can strengthen the value proposition of membership, create clearer progression opportunities for members at different career stages, and reinforce the association's role as a trusted custodian of professional standards. They may also help associations remain relevant in a more competitive professional development and membership landscape.

If pursued in future, professional recognition and credentialling pathways could be developed in stages. Early steps might include self-assessment tools, mapped CPD pathways, role or career-stage guidance, and clearer articulation of capability expectations across the three discipline areas. Over time, these could evolve into more formal recognition mechanisms, such as assessed recognition pathways, defined membership grades, practice endorsements and, where appropriate, certification pathways supported by evidence of experience, professional conduct and continuing professional development. Any such pathway would require further consultation, governance design, assessment integrity and consideration of how recognition, credentialling and certification should apply across different disciplines, sectors and levels of professional responsibility.

The staged pathway in Table 2 illustrates how this framework could support progressively more formal approaches to development, recognition and credentialling over time.

Students and emerging professionals may engage with the staged pathway in different ways depending on their experience and discipline pathway. While the stages describe progressively formal approaches to capability development, recognition and credentialling, early-career practitioners typically interact with these stages through foundational learning, supervised practice, mentoring and exposure to professional standards.

Stage	Purpose	Illustrative Outputs
1. Framework	Define shared expectations, common capability and discipline-specific knowledge across the profession.	Competency domains, knowledge areas, role and capability benchmarks.
2. CPD and Development	Translate the framework into learning, reflection and career development pathways.	Self-assessment tools, CPD pathways, education mapping, career-stage guidance.
3. Recognition	Acknowledge demonstrated capability and commitment to professional standards and ongoing development.	Recognition pathways, assessed portfolios, practice endorsements and defined membership grades.
4. Credentialling	Establish more formal and trusted verification of competence, conduct and currency.	Formal credentials, certification pathways, renewal requirements and continuing competence obligations.

Table 2: Staged pathway outlining the progression from shared expectations to credentialling.

Consultation questions

- How valuable would formal recognition, credentialling or certification pathways be for the transport profession?
- Which forms of evidence should be recognised, such as qualifications, CPD, portfolios, supervisor verification, peer review or professional discussion?
- What benefits could recognition or credentialling provide for practitioners, employers, clients, governments and the broader profession?
- What risks or concerns should TPA address, including cost, administration, barriers to entry, duplication, assessment consistency and governance?
- What governance features would be essential for any future recognition pathway?

10 Conclusion and Next Steps

The Transport Professionals Competency Framework provides a nationally consistent foundation for defining, developing and recognising capability across transport planning, transport modelling and transport engineering. The framework responds to the growing complexity of transport practice and the need for clearer expectations across professional, cross-disciplinary and discipline-specific knowledge areas.

Subject to endorsement, the next phase will focus on testing and refining the framework through national consultation with members, fellows, emerging professionals, government, local government, universities, industry partners, insurers and aligned professional associations. This process will validate whether the framework reflects contemporary practice, identify any gaps or areas requiring clarification, and test support for future professional recognition, credentialling or certification pathways.

The consultation phase will be critical to ensuring the framework is credible, practical and supported by the profession. It will also provide the evidence needed for the Board to determine whether and how TPA should progress toward more formal recognition pathways in a way that is staged, sustainable and aligned with member, employer and sector needs.

Consultation questions

- Overall, should TPA continue developing this framework and explore future recognition pathways?
- What is the most important feedback TPA should consider before finalising the framework?
- Who else should be consulted before the framework is endorsed or implemented?
- What next steps would build confidence, legitimacy and sector support?