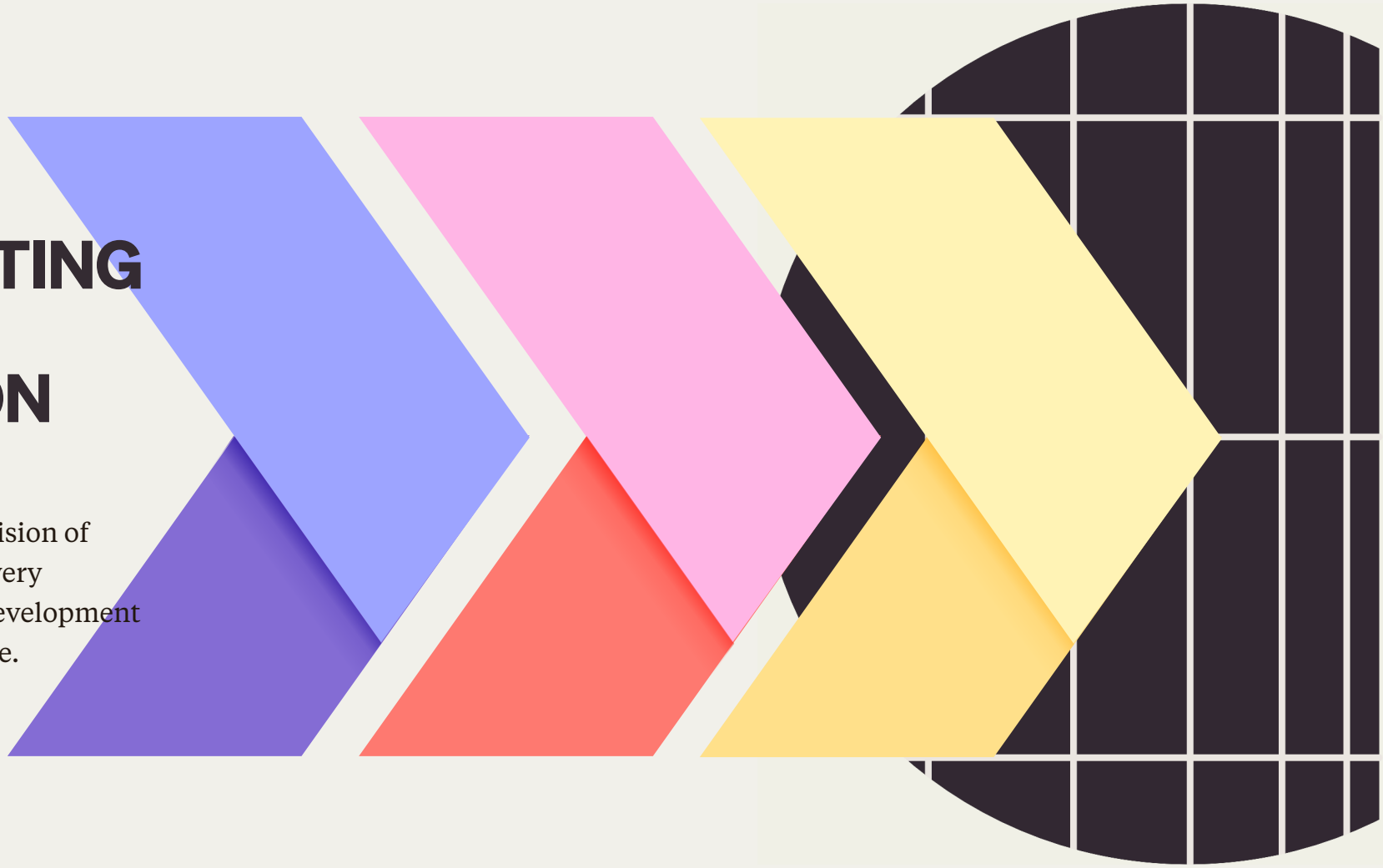
CASE STUDY

ACCELERATING PRODUCT INNOVATION

HYPR helped bring RAA's vision of establishing a modern delivery ecosystem to support the development of new travel products to life.



HYPR
www.hyprinnovation.io

RAA

CONTEXT

The challenges

RAA (Royal Automobile Association) is a longstanding company comprising multiple lines of business and boasting 850,000 members in South Australia. It is one of SA's most trusted brands. RAA is currently investing in strategic growth opportunities supported by technology modernisation, looking to improve internal products that allow for improved service to RAA customers, while also exploring new product opportunities underpinned by modern technology and ways of working.

RAA needed to develop a new travel platform to allow their travel agents to better support customer experience and unlock new revenue streams. The existing legacy technology systems required manual steps, resulting in less efficient customer interactions and error-prone and time-consuming processes.

RAA's vision is to establish a modern delivery ecosystem to support the development of new travel products, serving as a blueprint for future products and business lines within the organisation.

"HYPR brought the skills and capability to help us establish a modern Delivery Ecosystem that will help us to accelerate our new product opportunities. I know the team really enjoyed the learning experience too"

Ross Brigoli, Head of Engineering, RAA

Our Engagement Model

HYPR

The Pursuit of Relevance

Build your world-class product engineering practice. Optimise the flow of customer value and build in the adaptability required for business model innovation

ALIGN

We seek to understand your vision, objectives and desired outcomes. We explore the constraints you face and a timescale for transforming your delivery system

DIVERSIFY

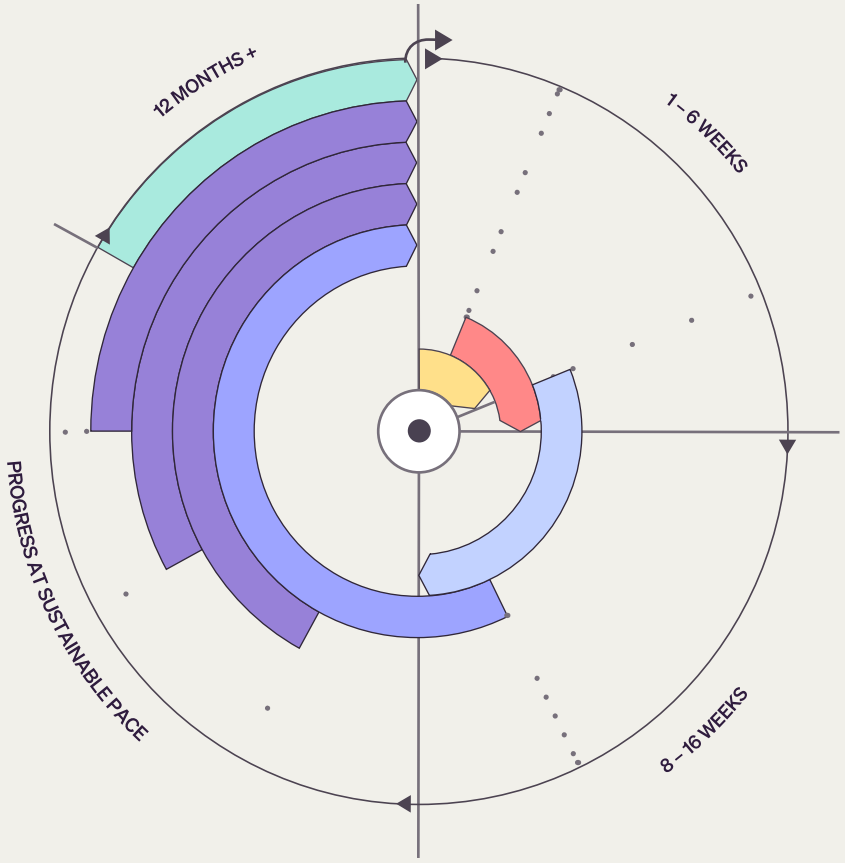
Using the Delivery Ecosystem, the teams are able to explore more adjacent or radical pools of value

SCALE ECOSYSTEM

We bring more teams into the Delivery Ecosystem, uplifting capability across your product engineering practice

EMBED ECOSYSTEM

To build confidence in the Delivery Ecosystem, we help one or two teams form the new habits that allow them to incrementally deliver slices of value while displacing legacy



FLOODLIGHT

A comprehensive assessment of the maturity of your product engineering practice at the system level. Delivers critical insights on constraints to flow and helps align stakeholders about the improvements you need to make

SPOTLIGHT

Measures the current flow of value through your system. Compares your performance against industry-recognised benchmarks. Provides expert guidance on how best to optimise flow

CREATE ECOSYSTEM

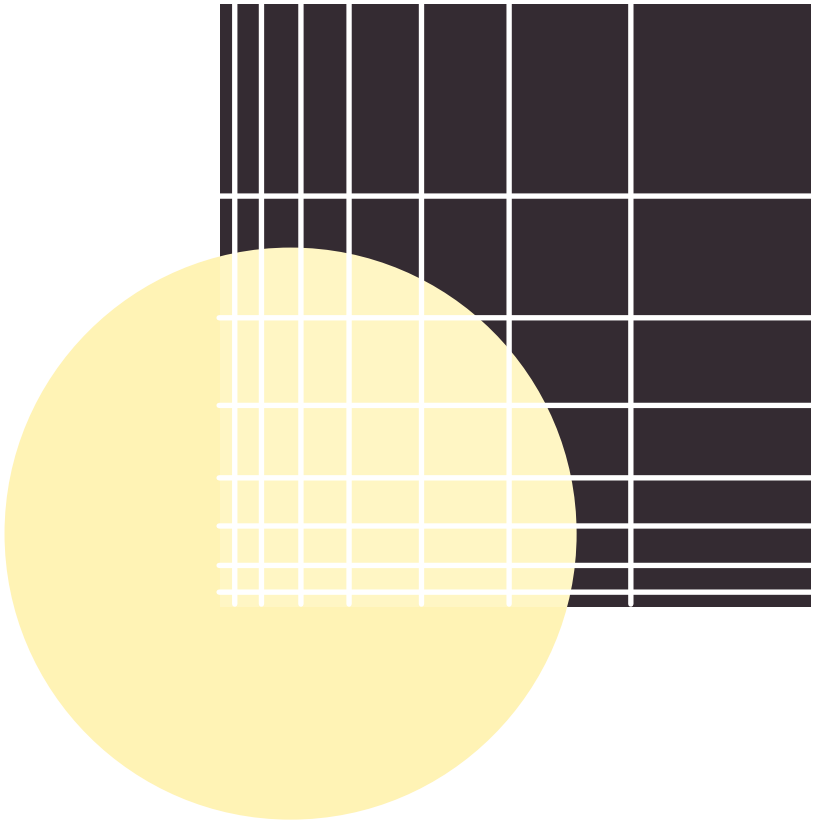
We adapt proven patterns in your context to create a flow-optimised, human and technical ecosystem that can deliver slices of value fast

HYPR'S ENGAGEMENT MODEL

HYPR's Engagement Model is crafted to address complex transitions and was applied to RAA through three distinct stages:

Floodlight – Discovery

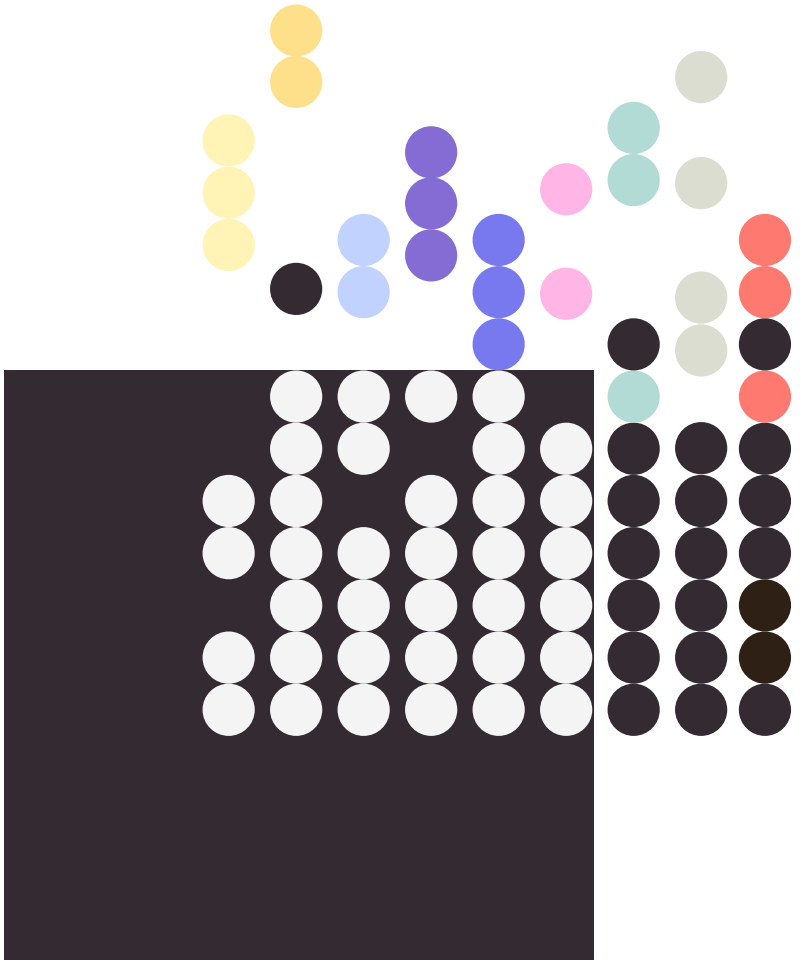
A week-long discovery process was initiated to help find the optimal technology choices to support the new Delivery Ecosystem. During this period, the team conducted in-depth interviews with key stakeholders, examined existing systems and analysed current ways of working to gain an understanding of RAA's needs, challenges and opportunities.



Spotlight – Metrics

Flow metrics were introduced to baseline the existing development process and help identify improvement opportunities within teams. By establishing flow metrics, the effectiveness of the delivery ecosystem can be measured over time.

The team implemented flow metrics to improve the visibility of trade-off decisions and how work was flowing end-to-end. This provided valuable insights into the development process and helped identify areas for improvement.



“We brought in HYPR to create focus and build momentum around new product initiatives. They helped us create a more effective delivery ecosystem and worked collaboratively with our people to introduce new skills. HYPR’s hybrid team approach is a great way to uplift capability and accelerate product innovation at the same time”

David Clifford, Senior Manager,

Agility CoE, RAA

Create Delivery Ecosystem

A two-stage approach to establish and embed the Delivery Ecosystem based on recommendations from the Floodlight – Discovery was undertaken...

Establish Ecosystem (first six weeks)

The initial stage focused on setting up foundational technical practices and the initial pathway to production. A cornerstone of this stage was the implementation of a containerised development workflow allowing developers to rapidly experiment and learn, while also enabling fast feedback to accelerate development.

This approach created a consistent local development environment, significantly reducing the time required to onboard new developers and providing a safe space for experimentation without affecting the broader system.

To guide future development, a seed service was created using modern patterns and with a modern API style. The initial service showcased key architectural styles, serving as a base from which to evolve subsequent services in the travel platform.
Frontend patterns were established at the same time, including the selection of a frontend framework and the creation of a working example based on the needs of the travel platform.

Quality assurance was prioritised through the adoption of layered test automation. This approach ensured a balanced mix of micro/unit, integration and end-to-end tests, improving overall software quality and reliability.

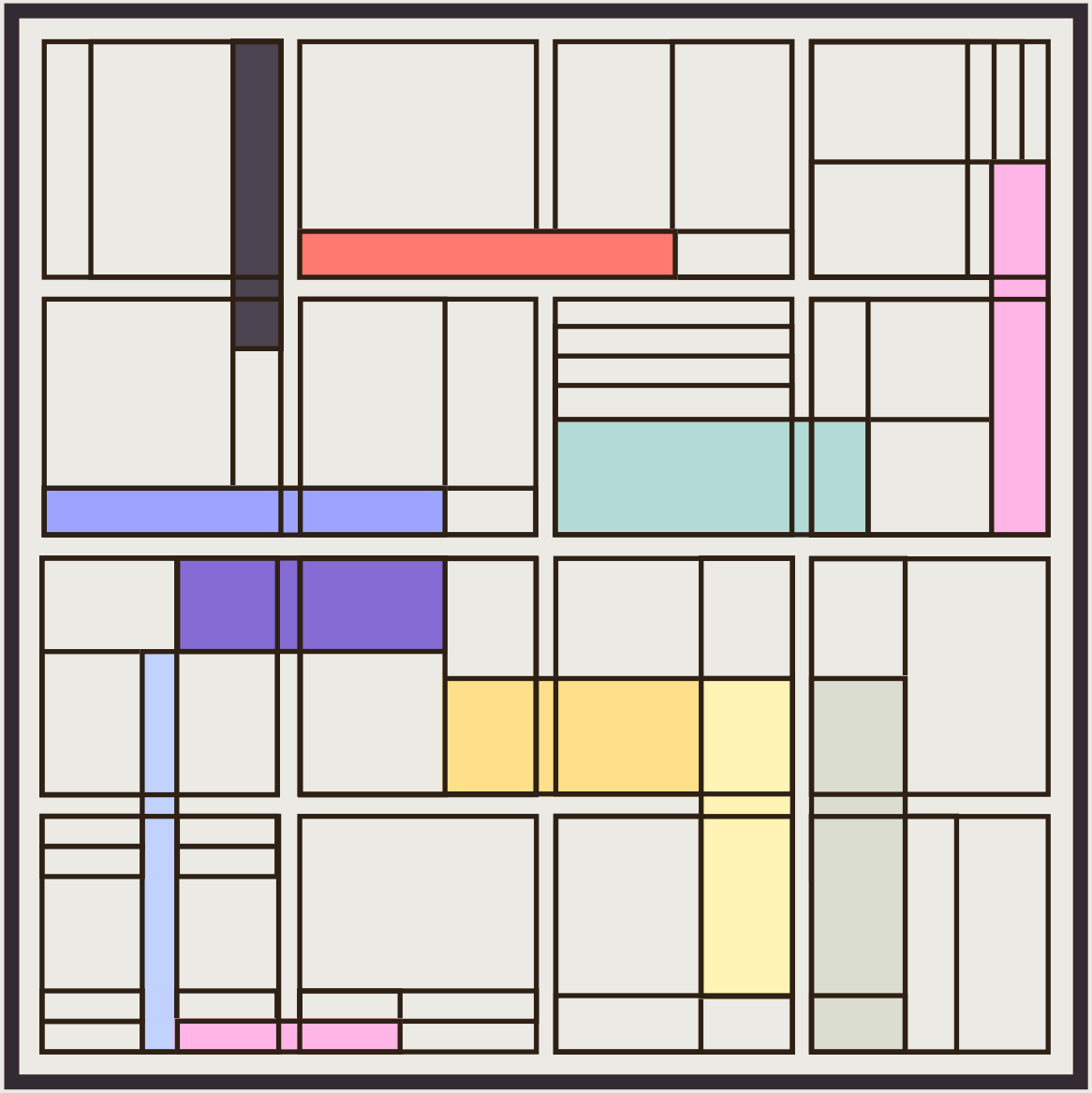
Event storming sessions were undertaken to guide development. These sessions helped create alignment and continually refine domain models, which in turn informed the design of service boundaries.

Infrastructure as Code (IaC) was used to establish cloud environments including cloud services. A containerised workload was established for a set of environments.

A modern CI/CD pipeline was set up incorporating a containerised immutable build process, with static code analysis, security checks and layered tests running in containers. This setup ensured consistent and reliable builds, reducing the likelihood of integration issues.

A scaled trunk-based development approach was adopted. This method was chosen for its ability to eliminate merge conflicts, while supporting pair programming and code reviews, improving code quality and team collaboration.

Collaborative planning aligned a minimal viable product roadmap to customer needs and strategic objectives through service design, user experience design and event storming.



Embed Ecosystem (next eight weeks)

Building on the established foundation, the second stage focused on deepening the integration of the new ecosystem into RAA's operations. The team began by developing the first services for the travel platform, centring on federated search and availability checks.

Business engagement through weekly planning and refinement helped incorporate feedback into ongoing design iterations, ensuring that the platform evolved in line with user needs.

The pathway to production was extended to allow for RAA agent feedback as work progressed towards MVP release, creating feedback loops between development and end users. Feature flag management was integrated, enabling controlled feature rollouts and A/B testing.

To further enhance the testing process, ephemeral AWS environments were introduced, leveraging Kubernetes. These environments eliminated environment contention, creating trust in the reproducibility of build pipelines as each pull request could be tested in isolation.

The team introduced Architecture Decision Records ADRs, including an advice process. This ensured that decisions were decentralised where appropriate, knowledge was shared, decisions were documented and the team had opportunities to learn as work progressed.

A Domain-Driven Design (DDD) approach was taken for services, where models were based on the reality of the business for greater understanding and shared meaning. This included the use of bounded contexts, aggregates and layered architecture.

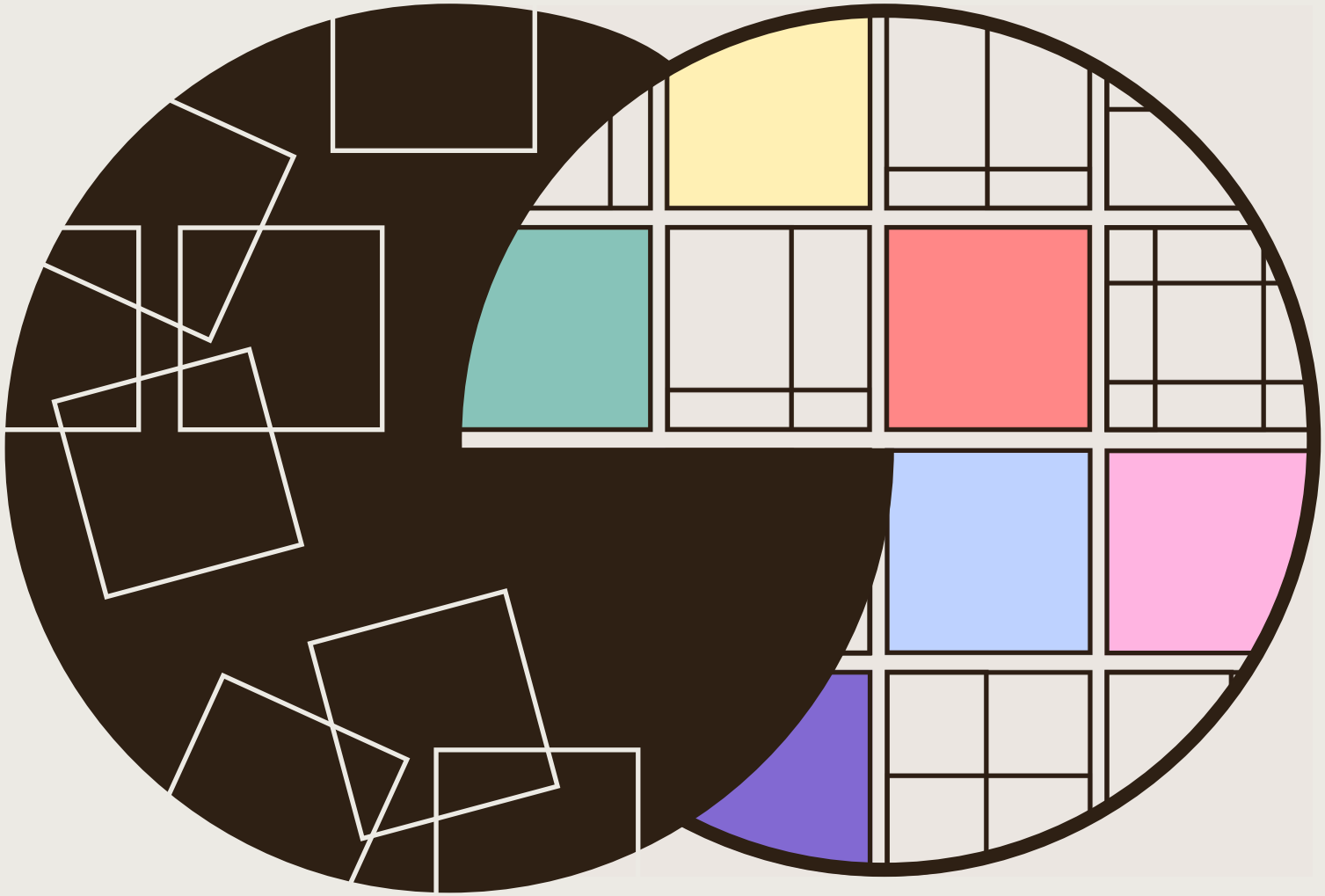
Aspects of industry data models were used where appropriate to accelerate domain design and provide a foundation for the enrichment of data context for later analytical use. Semantic enrichment of events based on an industry-recognised schema supports future data products and AI needs.

The team introduced more collaborative specification practices where they collectively identified examples that bounded work and formed the basis of the layered test automation approach. Building on collaborative specification, the team introduced scenario-driven development. This approach ensured that quality was a team responsibility, not just that of QAs, resulting in richer acceptance criteria and fewer defects.

Cloud environments continued to evolve including cloud services and more sophisticated workloads. Security, networking and workload management were evolved for better maintainability. Documentation and user guides were created to help share knowledge. The team introduced basic dashboards based on structured logging to enhance the observability of the system.

The team introduced 'lunch and learn' sessions where people were invited to explore different topics that emerged from learnings in the value stream.

Regular reviews with stakeholders ensured progress was aligned towards the delivery of a minimal viable product. Feedback from stakeholders and users was incorporated to guide product delivery.



RESULTS AND IMPACT

Significant improvements

The new Delivery Ecosystem brought about significant improvements in RAA's development process. It enables rapid experimentation and learning through containerised development workflows, allowing developers to quickly test ideas without impacting the broader system. The consistent local development environment accelerates onboarding for new developers, reducing setup time.

Software quality was improved through layered test automation and scenario-driven development, ensuring a balanced mix of testing types and reducing defects. The approach fosters enhanced collaboration promoting better teamwork and alignment.

Flow time was improved via CI/CD pipelines with containerised builds, enabling faster and more reliable deployments. The use of Infrastructure as Code (IaC) and cloud environments supports easier scaling and management of resources.

The development process remains customer and user-centric through regular reviews and feedback loops, ensuring the platform evolves in line with user needs and business objectives. Knowledge sharing is promoted through Architecture Decision Records (ADRs), lunch and learn sessions and comprehensive documentation.

System observability is enhanced through observability dashboards based on structured logging, improving monitoring and troubleshooting capabilities.

Feature flag management provides flexibility in rollouts and enables A/B testing. The use of ephemeral AWS environments for testing eliminates contention and increases trust in build reproducibility. Finally, the Domain-Driven Design (DDD) approach ensures services are modelled on business realities, promoting a shared understanding between technical and business teams.

Conclusion

The collaboration between HYPR and RAA successfully established a modern delivery ecosystem for the travel business line, a milestone in RAA's transformation journey. This new approach sets a new benchmark for software development and ways of working within the organisation.

The technical foundations, improved ways of working and architecture will enable faster innovation and better alignment with customer needs as RAA continues to evolve its travel platform. These improvements position RAA for sustained growth and success in the competitive travel industry.

The Delivery Ecosystem established during this engagement will accelerate time-to-market and support future innovation, helping RAA maintain a competitive edge in the rapidly-evolving travel sector.

WHY HYPR?

HYPR is a technology consulting company focused on improving the software delivery practices of APAC enterprises.

In addition to working with large organisations on their most complex technology projects, we've also worked extensively with a wide range of APAC companies (200+ to date), helping them identify high-value improvements in the way they design, build and improve their software products.

This work has allowed us to develop a unique understanding of organisations' engineering and delivery challenges and, more importantly, how well they are to overcome them to reap the benefits of world-class product engineering.

Our clients say...

Southern Cross Health Insurance

"I knew that HYPR had experience in building modern engineering practices. In our early conversations, they provided a clear vision for creating an environment for success, working with our teams on tech modernisation while teaching us how to fish at the same time. Their Hybrid Team Model was critical in deciding to engage them; by putting their people alongside ours, they would teach us how to do things so that we could then do them ourselves"

Roxanne Salton, CDO,
Southern Cross Health Insurance

Explore how HYPR successfully guided Southern Cross Health Insurance in their engineering practice transformation in our full case study.

HYPR

www.hyprinnovation.io

To find out more about how HYPR could successfully create a flow-optimised product delivery ecosystem for your organisation, get in touch for a chat or to book a discovery session.

CONTACT US NOW – WE'RE READY TO HELP

Gareth Evans – Partner
gareth@hyprinnovation.io

Gillian Clark – Partner
gillian@hyprinnovation.io

Ajay Blackshah – Partner
ajay@hyprinnovation.io