



Building for the future: France and Victoria, Australia

**Skills, talent, innovation and digitalisation
needs for a low-carbon future**



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Building for the future: Skills, talent, innovation and digitalisation needs for a low carbon future

The Future Europe Series is an initiative of RMIT Europe and the State of Victoria's European Trade and Investment office. It aims to inspire collaboration, spark new ideas, and create tangible outcomes that will drive positive change to achieve the low-carbon transition we need.

The series brings together insights from industry, government and academic leaders in France and Victoria on the challenges and opportunities of the transition to a decarbonised economy in an increasingly digital world. As we plan and build for a low-carbon future on a global scale, it is incumbent on both the private and public sectors to collaborate, exchange knowledge and share the responsibility of making necessary change happen.

Both France and Victoria are addressing the challenges of making the low-carbon transition a reality. This series convenes the critical themes that will require bilateral cooperation and the strengthening of partnerships to achieve accelerated progress at scale in the areas of skills, talent, innovation and digitalisation.



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The State of Victoria in Australia is known for its diverse economy, cutting-edge research and innovation and its commitment to sustainable development.

The State of Victoria recognises the utmost importance of fostering strong relationships with international partners and places a high priority on its international footprint and connections.

The State boasts the most extensive global network among Australian states and Territories with 23 international offices.

France is one of the largest foreign investors in Victoria, with French capital equal to \$5.4 billion invested over the past six years, creating more than 1,300 jobs.

Prominent French organisations such as the French National Centre for Scientific Research (CNRS) and electric utility company EDF have recently chosen Melbourne to establish their Australian headquarters, joining other significant investors in Victoria including Alstom, Air Liquide, CMA-CGM, Egis, Engie, Flying Whales, Keolis, Thales and TotalEnergies.

Together with the insights of experts from industry, government and academia and in the context of France and Victoria bilateral relations, the Future Europe Series aims to shed light on the skills, talent, innovation and digitalisation needs as we transition our businesses and our society towards a sustainable future / decarbonised economy.

We see this series serving as a comprehensive resource for French companies interested in investing in Victoria's dynamic economy and contributing to building its future.

Gönül Serbest

Commissioner for Victoria to Europe, Middle East, Türkiye and Africa

What skills will graduates need to be prepared for the future of work and to meet the demands of industry?

What is needed for the current workforce to upskill and reskill for the green economy?

How will shifting demographics impact expectations and the future workforce?

Scarcity of skills versus technology innovation

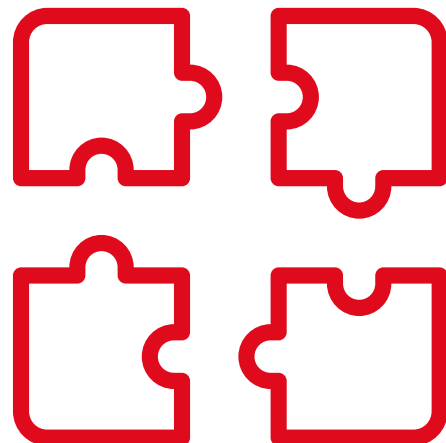
There's a need for more engineers and technical trades skills which need to be facilitated by greater cooperation between the private sector, local authorities and universities.

Designing the future

Design students can play a critical role in the transition, working with organisations to interrogate, experiment and challenge industry practices.

Flexible workplaces for flexible talent

The importance of seeing people as individuals with different career stages and providing employment opportunities and training and development for people at these different stages. Most young people expect to transition careers four to five times over their lifetime and are looking for flexibility.



Understanding the shifting demographics

Gen Z is interested in work-life balance, greater flexibility and working for employers that are ethical. They value diversity and inclusion and prioritise social and environmental issues.

Upskilling is a societal responsibility

We should not just rely on employers to invest in the upskilling of workers. Upskilling, employability and lifelong learning are societal issues where individuals and governments also need to take responsibility.

Purpose matters to employees

Gone are the days of stock options, high salaries and fast-track careers. Employees want to work for companies whose purpose aligns with their values.

Shortening employee cycles

Employees used to stay with an organisation for longer periods of time. Now employees can be gone within a year if employers don't find ways to engage and renew the interest of their employees.

Work exchange programs

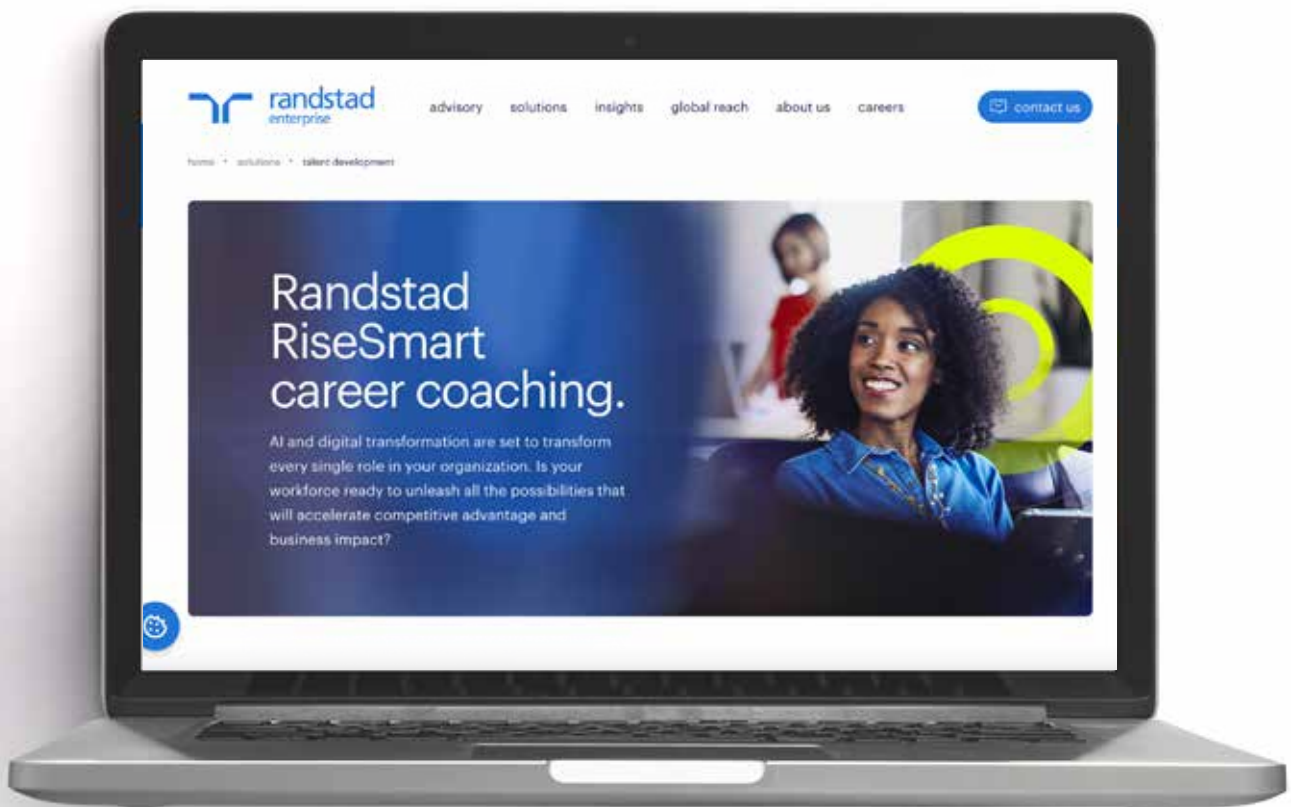
Developing cultural exchange programs for employees is important to facilitate the exchange of knowledge, and build cross-cultural experience and talent to address the global scale of the transition.



SKILLS AND TALENT CASE STUDY

RiseSmart at Randstad

This skills and talent case study highlights a career coaching program designed to upskill workers in line with advances in AI and digital transformation, fostering talent development in the workforce in response to the widening tech skills gap.



RiseSmart's 'tech-and-touch' approach brings together the power of AI and human expertise to connect employees with the right coach. Alongside one-to-one coaching with a career expert, employees can receive AI-driven nudging to build positive habit formation.

As of 2024, 80% of companies are investing more in employee skill development and career engagement. By fostering talent and upskilling employees, organisations can expect higher employee engagement, higher rates of employee retention, and improved performance as well as attracting top quality talent.

What strategies need to be implemented by the public and private sectors to incentivise the development and adoption of new technologies?

How might we accelerate and scale the adoption of innovative decarbonisation solutions?

Shortening the global knowledge gap

Research entities have an opportunity to bring the latest knowledge and expertise from the research lab to industry through networking events, joint laboratories with collaborative research initiatives and executive training programs.

More innovative financial incentives are needed

What is missing are the financial incentives to modify behaviours and get people to choose more sustainable ways operating.

Greater acceleration is needed to achieve the decarbonisation transition

Both industry and government are responsible for accelerating innovation and regulation, making the solutions affordable to people, and implementing solutions at scale.



Social innovation is as important as technology innovation

More resources need to be allocated towards social sciences research to better understand what motivates people and how they respond to new decarbonisation solutions. This also necessitates more interactions between industry and universities to collaborate on research studies to generate vital industry insights.

Foreign investment is necessary

To achieve decarbonisation at scale, countries will need to look beyond their borders for foreign investment. The flow of foreign investment will also bring external perspectives and thinking to the transition.

Start with constraints

To facilitate the transition, we need to first better understand the constraints that are limiting and hampering our ability to shift away from fossil fuels. By delving into the constraints you can then look to local open-sourced solutions to make the necessary adjustments.

Systemic redesign

Entire markets need to be redesigned because many of our systems were based on the intensive use of fossil fuels and as entire industries shift away from them, we need to redesign these systems (legal and economic) to accommodate and facilitate the transition.



Image by Joe from Pixabay

INNOVATION CASE STUDY

FLYING WHALES

This innovation case study demonstrates the importance of international cooperation and investment to help us accelerate the implementation of innovative decarbonisation solutions at scale.

FLYING WHALES is a French-Canadian aeronautic start-up presenting an innovative solution to the logistical constraints limiting our ability to shift away from fossil fuels.

Backed by an international consortium, FLYING WHALES is developing an environmentally-friendly airship: the LCA60T. The airship responds to the problem of transporting large goods such as wind turbines to remote areas, offering the potential for decarbonisation at scale. A manufacturing hub is due to be built in Ballarat, Victoria.



How might we address the threats of increased energy consumption, e-waste generation, security breaches, and straining global supply chains and resources?

It's not a technology adoption challenge. It's an investment challenge.

The capital expenditures needed for investing in new infrastructure are huge and will need to be shared between the private and public sectors.

Government audacity and boldness of vision

There's a strong need for audacity and boldness from the public sector to address the challenges of the future, particularly in the areas of transport and mobility.

Digitalisation will improve transportation performance and safety

There's a tremendous opportunity to improve transportation circulation and safety and increase capacity with digitalisation.

Managing cybersecurity risks

It is critical that as organisations digitise their systems and processes to operate more efficiently and cost-effectively that they manage the associated risks.



Speculative design

Applied design research can help us explore technological futures and their potential implications for future policy. Design research approaches include technical prototyping to test out potential solutions and determine their viability.

Investing in the future

It is not sufficient to invest in current technologies. The private sector and R&D need to invest in what is next to achieve the energy transition, rather than duplicate what has already been developed in other geographies companies need to invest in the future.



DIGITALISATION CASE STUDY

COMPAS™ and ODAS™, Alstom

This digitalisation case study is an example of the use of digital technology to make urban transport safer, contributing to reduced energy consumption in cities.



Image by melbmap.com.au/melbournetrans/

The world's first homologated obstacle detection assistance system, ODAS™, assists tramway drivers in critical situations by detecting obstacles and avoiding collisions.

With Alstom's collision and overspeed monitoring and prevention system, COMPAS™, trams operate at a safe speed and brake automatically, preventing collisions and providing greater safety for passengers, drivers and road users.

The Citadis trams featuring both technologies are running in cities across the world, including Zurich, Vienna and Melbourne.

Series recommendations

Continuous upskilling and reskilling

To meet the demands of emerging decarbonisation solutions and processes, continuous upskilling and reskilling are crucial. A collaborative effort between the private sector, government and universities is essential to ensure that graduates are equipped with the necessary technical skills.

Evolving organisational structures

Shifting demographics are reshaping talent expectations and values, with a greater focus on work flexibility, work-life balance and values-driven organisations. Companies must adapt and evolve to attract and retain top talent in this changing landscape.

Achieving speed and scale in decarbonisation

Both government and industry must adopt a bolder vision, stronger commitments to decarbonisation, and greater follow-through on ambitious targets. Accelerating the transition requires greater scale and speed to mitigate negative and unintended consequences effectively.

Facilitating knowledge exchange

To overcome complacency and existing constraints, the private sector, government and universities must collaborate to share good practices and knowledge. This exchange is vital for accelerating the transition to a sustainable future.



Looking forward



The insights shared in this series highlight both the challenges and opportunities in making the low-carbon transition a reality in the context of France and Victoria bilateral relations. We see skills, innovation, talent and digitalisation as key areas that require transnational cooperation.

As RMIT University's European Innovation Hub, we are committed to supporting the growing economic relationship between France and Victoria through partnerships in research and innovation, community engagement, education and talent solutions.

But there is still much more that can be done.

As we plan and build for a low-carbon future, both the private sector and public sector in France and Australia are being confronted with the challenges and the opportunities of making the post fossil-fuel economy a reality.

As France's investment in Australia continues to grow, we must bring together industry, government and academia to work together towards the energy transition.

Our efforts need to go beyond sustainable practices and look to regenerative futures as a way of renewing and revitalising social, economic and environmental systems. From there and together we can build the future.

Thank you to all contributors for sharing their insights as part of this series.

Professor Marta Fernández, PhD, FIET

Executive Director and VC Innovation Professor, RMIT Europe

Future Europe Series roundtable Paris, France 31 January 2024



L-R: Marta Fernandez (RMIT Europe), James Auger (ENS Paris-Saclay & RMIT), Gönül Serbest (State of Victoria's European Trade and Investment office), Pierre Roy (CNRS), Megan Anderson (Australian Embassy in France), François Moreau (Randstad France), Sébastien Bougon (FLYING WHALES), Philippe Delleur (Alstom) and Nicola Jolley (NAB Europe & Australia France Business Association).

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