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**ATTRACTING MANUFACTURING FIRMS TO SOUTH AUSTRALIA:  
THE CASE OF PHILIPS IN HENDON, 1946-1980**

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**Attracting manufacturing firms to South Australia:  
The case of Philips in Hendon, 1946-1980**

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**Abstract**

Philips Australia established its manufacturing branch in Adelaide in 1946. At peak, its Hendon plant had 3,500 employees and was one of many manufacturers that reshaped the city's north-western suburbs. Philips was enticed by the offer of relocation subsidies, access to Commonwealth buildings, and State provision of affordable housing. The company's approach to employee welfare included providing staff training and sporting and cultural amenities. The social impact of industrialisation and Philips' presence lasted several decades but faded after the company left in 1980 and immigrant workers aged. It did, however, contribute to permanent social changes in Adelaide's north-western suburbs. (99 words)

**Keywords:** manufacturing, corporate culture, industry policy, Adelaide, Philips Electronics  
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## **Attracting manufacturing firms to South Australia: The case of Philips in Hendon, 1946-1980**

### **Abstract**

Philips Australia established its manufacturing branch in Adelaide in 1946. At peak, its Hendon plant had 3,500 employees and was one of many manufacturers that reshaped the city's north-western suburbs. Philips was enticed by the offer of relocation subsidies, access to Commonwealth buildings, and State provision of affordable housing. The company's approach to employee welfare included providing staff training and sporting and cultural amenities. The social impact of industrialisation and Philips' presence lasted several decades but faded after the company left in 1980 and immigrant workers aged. It did, however, contribute to permanent social changes in Adelaide's north-western suburbs.

### **Introduction**

Together with the electrification of households and enterprises, local manufacturers of electrical and electronic goods emerged in Australia after 1916. This industry expanded quickly after the austerity of the 1930s and 1940s subsided and electrification spread further. The industry's expansion coincided with governments of Australian states seeking to grow and diversify their state economies. South Australia (SA) succeeded to attract a range of manufacturing companies, mostly to Adelaide. The state's industrialisation policy encouraged private investment in large part through coordinating the necessary housing, schools and other public amenities required by additional workers and their families. After World War II, many of these workers were immigrants.

This study examines the case of Philips Australia, which established its manufacturing facilities in Hendon, a suburb 10 kilometres north-west of Adelaide's CBD, in 1946. The company is a subsidiary of the Dutch multinational Philips and played a key role in the rapid expansion of Australia's electrical and electronic goods industry. Incorporated in Sydney in 1926 as Philips

Lamps (Australasia) Pty Ltd, the company changed its name several times over the decades.<sup>1</sup> For convenience, we refer to it as Philips Australia and to the Hendon factory complex as Philips Hendon. While it was only one of many manufacturers attracted to SA, the case of Philips illustrates the complex interactions between Commonwealth, State and local governments, private enterprise and community commitment that were necessary to attract manufacturing firms to SA.

The next section outlines the background to SA's push to expand manufacturing, the importance of Commonwealth defence spending to provide the infrastructure, and the development of the electrical and electronics industry in Australia as a background to the role of Philips. The section following focuses on Philips Australia and its decision to transfer its manufacturing operations to Hendon. It identifies the relationships between the company and public authorities in shaping the infrastructure, housing, public amenities and social services that accommodated the plant, its employees and their families. The last section discusses aspects of Philips' corporate culture and its spillovers into Hendon and the surrounding communities. The data to substantiate the impact of Philips Hendon on the local community are offered tentatively, as it is not simple to parse Philips' impact from those of other companies in the region.<sup>2</sup> Examples are given to illustrate Philips' corporate culture and the way this manifested itself in the local plant and community. The paper concludes with observations of the consequences of SA's efforts to advance manufacturing industry during the mid-20<sup>th</sup> century.

## **Background**

Urban location decisions of firms, their employees, and the dynamic changes these create in urban space are important to the study of urban geography and the economics of urbanisation

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<sup>1</sup> In 1943 it became Philips Electrical Industries of Australia Pty Ltd; in 1952 Philips Electrical Industries Pty Ltd; in 1964 Philips Industries Pty Ltd. And In 1965 it became Philips Industries Holdings Ltd, controlling a diverse group of subsidiary companies in Australia. The firm became Philips Electronics Australia Ltd in 1994.

<sup>2</sup> The source materials available to trace Philips' impact around Hendon are limited and rely heavily on newspaper articles. Philips Australia released information for publicity: generally new products and 'good news' stories. Some news focused on the company or employees, but rarely on local stakeholders. Company reports often overlooked its operations in Hendon. Identifying Philips' impact on Adelaide suburbs is thus difficult. Nevertheless, some news items cover aspects of social change associated with the Philips Hendon site development.

(e.g. Goodall 1983: 114-176). The impact of such processes on Adelaide's cityscape are part of studies of the shaping of Adelaide City (Marsden 1977, 1996), Woodville Council (Marsden 1987) and the suburb of Elizabeth (Peel 1995). Less examined are the social, political and economic factors that preceded such location decisions, the ways in which they interacted with the objectives of companies, and the cumulative impact of these elements.

The historical context in which governments and firms choose to invest, incentivise, or reallocate resources is important. After the harsh realities of the 1930s depression and World War II, there was an appetite for governments to facilitate an increase in people, profits and economic growth (Butlin *et al.* 1982). The long-run decline in prices of exported commodities, distrust of international market forces and efforts to increase economic self-reliance combined to enhance support for industrialisation that had started in the 1920s and accelerated during following decades (McLean 2013). With labour shortages during the 1940s-1960s and increases in demand, large companies were receptive to offers of government assistance that reduced establishment costs. The *quid-pro-quo* was the need to support local community initiatives, although this had the advantage of enhancing a firm's reputation and the loyalty of its employees.

A mutual dependency evolved that shaped local communities and the social capital that sustained them. Firms depended on local authorities to provide public amenities and social services; local authorities received increased revenues to fund social and public infrastructure; workers experienced improving living standards; local businesses benefited from increased household spending and company outsourcing. Studies of 'company towns', 'industrial suburbs' and 'corporate suburbs' have analysed such interactions (e.g. Lewis 1999). In Australia, a similar dynamic was evident in rural towns such as Mount Isa (White 2012).

During the 1920s and 1930s, SA's manufacturing base was similar to that of other states (Stutchbury 1984). What differed was the articulated public concern over the state's lack of manufacturing industry. A State Royal Commission in 1926-27 on manufacturing and secondary industries identified the elements to support a manufacturing sector (Macfarlane 1986: 10). In 1929, Leslie Melville and John William Wainwright highlighted the disadvantages of the country's

tariff protection policies to primary-products exporter SA and the state's inability to manage these (Stretton and Stretton 1990).

By the mid-1930s, SA politicians, businessmen, and government officials shared concerns about the state's declining living standards. Unemployment among trade unionists had been higher in SA than elsewhere during 1928-1935 (Broomhill 1978: 13). Government officials, including Wainwright (then State Auditor General during 1934-1945), and Premiers Richard Butler (1927-30, 1933-38) and Thomas Playford (1938-1965), argued that SA needed to expand manufacturing industry to ensure long term growth and improve living standards (Sendziuk and Foster 2018: 130-146). Prominent Adelaide businessmen supported this view (Miles 1969: 101).

In 1937, the South Australian Chamber of Manufacturers, aided by a government loan, established the privately controlled Industries Assistance Corporation of South Australia Ltd (IAC) to help expand manufacturing enterprise. The IAC sought to attract international manufacturers to produce in SA. The local community was acutely aware that existing businesses might leave. In 1935, both General-Motors Holden (GMH) and T.J. Richards threatened to leave Adelaide, prompting government and businesses to develop and – to a degree – underwrite the manufacturing sector (Rich 1996: 100).

The injection of capital and equipment financed by the Commonwealth Government stimulated structural change in SA (Fort 2015; Rich 1988). As Senator H.S. Foll (Federal Minister for Information and the Interior) stated in 1941: 'It is hard to find good in any war, but the enforced impetus to a gigantic building programme will leave us concrete and steel converted into even greater industrial projects when this job with Hitler is finished ... In proportion to population, no State has received greater material benefits than South Australia' (*The Advertiser* (Adelaide), 20 May 1941). By 1942, more than 85 firms manufactured war goods in Adelaide (Fort 2015). Local politicians and businessmen were quite aware of the benefits that accrued from Commonwealth spending in SA. The Commonwealth, for its part, had strategic and defensive reasons to distribute war-related industries across states. Keen to disperse munitions production to factories around the country, it provided loan funds to finance house construction for workers at the Hendon plant (*Advertiser*, 4 October 1941). The factory buildings at Hendon, together with

additional housing stock, when combined with the workforce of migrants after the war, were to be factors that attracted company interest after 1944.

A key difference between SA and other states was that SA sought to create a cost advantage to attract firms. The South Australian Housing Trust (SAHT), which ultimately went on to plan and construct new suburbs, was an important mechanism (Marsden 1982). It provided low-cost housing, which facilitated lower wages than elsewhere in Australia. After the Commonwealth government disposed of its munitions factories in Hendon and Finsbury to encourage private sector investment, several large manufacturing companies expanded or settled in the vicinity. They included Pilkington in Kilkenny, Australian Cotton Textiles Industries and GMH in Woodville, Union Can in Cheltenham, Kelvinator in Keswick, British Tube Mills in Kilburn, Chrysler and Firestone in Finsbury. Other, smaller firms also emerged. Table 1 shows the aggregated results of the arrival of these manufacturing firms. By 1963 Adelaide was still well behind Sydney and Melbourne in terms of total employees in manufacturing industry. The proportional increase in factory employees in SA during 1954-1963, however, exceeded that of the other states, with Adelaide only lagging Melbourne in its increase in total factory employment..

[Table 1 about here]

A consequence of attracting manufacturing from interstate was that by 1964 Adelaide-based company executives controlled only 28 percent of the factories in SA, while executives based in Sydney and Melbourne controlled 69 percent (Johnson 1966: 51). While the number of people employed in manufacturing in the state increased, it also left them exposed to interstate decision makers whose priorities were not necessarily to advance the SA operations ahead of other interests. Despite this, the aggregated data suggest that SA was successful in attracting manufacturing ventures and growing its population, at least until the early-1960s. Adelaide's population growth was second to Perth during 1947-1954, and higher than all other Australian capitals during 1954-1966 (Ryan 1969: 203-219).

Residential electrification, first established in Tasmania (1916) and Victoria (1921) advanced household demand for electrical appliances in Australia. Given the relatively simple

technology, firms produced many of these goods in Australia, including kettles, toasters and heaters. By contrast, firms imported advanced products such as incandescent lamps until the 1930s, mainly from the UK.

Electricity also had military and marine applications in radio telephony. Australasian Wireless Limited (1909), which became Amalgamated Wireless Association (AWA), was initially responsible for high-powered coastal wireless stations and communication links to Britain. Equipment for radio transmission and radio receiving required radio valves. During the 1920s, the demand in Australia for valves increased quickly; first among amateur radio enthusiasts, then more broadly with the emergence of radio broadcasting stations in 1923. The number of licenced radio listeners grew from 1,200 in 1924 to over 300,000 in 1929; about 20 percent of households (Osborne 2013). By 1938, the number had grown to one million, or two-thirds of households (*Daily Mercury* (Mackay), 27 January 1938; Johnson 1987). By then, a significant number of radio manufacturers had emerged in Australia. Relatively small companies produced most radio receivers, and the choice of receiver-sets was large. In 1937, at least 21 radio brands were advertised, each offering up to a dozen variations on size, finish, style and price (Wireless Weekly 1937).

Firms producing electrical and electronic goods used imported components, such as transformers, small motors, condensers, and valves. During the 1920s and 1930s, the Tariff Board increased import duties on radio sets and key components, increasing the opportunities for local producers. The combination of import tariffs and the difficult conditions in the 1930s led to industry concentration, with larger producers acquiring smaller firms and amalgamating production sites. Philips, AWA and STC, Australia's only radio valve producers, started an undisclosed cartel, indicative of the concentrated market for key radio components in Australia (Van der Eng 2017).

After the War, companies in the industry required access to larger factories. Together with the increase in migration after 1945 and an expanding domestic market, tariff-protected companies were well-placed to transition to more technologically advanced, large-scale production of domestic goods. Companies that emerged as market leaders included Electrolux (refrigerators and vacuum cleaners) in South Yarra (Melbourne), Email (refrigerators) in Orange

(New South Wales, NSW), AWA (electronic consumer items and componentry) in Ashfield and Rydalmere (Sydney), Electronic Industries Ltd (producing Astor-branded consumer electronics) in South Melbourne, and Philips in Hendon.

### **Philips Australia and Hendon**

Having begun in Eindhoven in 1891, Dutch company Philips started exporting its electric incandescent lamps to Australia in 1912. Exports increased when World War I limited lamp supplies from the UK. During the 1920s, the company diversified into exporting radio transmitter and receiver valves, X-ray tubes, audio transformers, speakers and battery chargers. Increasing exports to Australia led it to incorporate its own subsidiary sales company in 1926 in Sydney. During the 1930s, Philips responded to Australia's new import restrictions, establishing an electric lamp factory in Newcastle and smaller factories around Sydney that produced radio receivers, valves, broadcasting and communications equipment.

In 1943, all operations came under the energetic management of new Managing Director (MD) Franciscus Nicolaas 'Frank' Leddy, who the parent company had appointed in 1942 to deflect the potential threat of a government takeover of Philips Australia as an 'enemy company' (Van der Eng 2017). In the process, Leddy secured greater management autonomy from the parent company. In 1944, he started preparing Philips Australia for the post-war years, anticipating an increase in demand for radios, componentry and other Philips products. To take advantage, the company required a larger production facility under one management in one location.

The Commonwealth government created the Secondary Industries Division (SID) within the Department of Post-War Reconstruction in February 1945. Its task was to decentralise and support the expansion of manufacturing firms (Jones 2002). Offering decommissioned munitions factories around the country was one way to achieve this. As building materials were in short supply and residential construction had priority in materials allocation, Leddy deemed acquisition of an existing factory the best option.

Early in 1945, Philips Australia's plan for post-war expansion started to take shape. Company executives started discussions with SID and considered three munitions factories in NSW and two in SA (Dickson 1975: 109-123). They favoured Villawood, but found the NSW government unwilling to grant concessions for essential services such as electricity. SID recommended SA, where concessions were possible. The company discussed the Hendon site with state government representatives in early-1945 (*Advertiser*, 18 August 1945). Leddy found Premier Playford more willing to grant concessions such as a 'guaranteed uninterrupted supply of electricity, water and gas. However, while Playford's government was willing enough, no real guarantees were given' (Dickson 1975: 112-113).

[Figure 1 about here]

The only concessions from the SA government were housing for key company employees transferred from Sydney and a £45,000 grant to cover part of the cost of moving to Hendon. The Commonwealth government contributed a concessional loan of £90,000 for the same purpose and a rebate on imported radio valves for the duration of the move to make up for lost production (Stutchbury 1984: 17). Leddy made his choice and travelled to The Netherlands in August 1945 to convince the Philips parent company of his preference for Hendon. In November 1945, the Philips Board approved the plan and provided a loan to acquire the £500,000 Hendon property and contribute to the cost of outfitting. In hindsight, Philips Australia executives underestimated the cost of moving to Hendon, which was not £135,000, but more than £250,000. Leddy secured an ex-gratia Commonwealth government payment of £45,000 (Stutchbury 1984: 17-18; Van der Eng 2018: 188-189). Despite the higher cost, the company re-started production as soon as machine tools had been installed and new employees trained.

Playford publicly announced the move of Philips Australia to Hendon in February 1946. The firm expected to employ around 2,000 in the future, of whom 60 percent were female. Employees would produce 'electrical appliances, ... radio parts, communications equipment, transmitters, radio valves, light fittings, domestic and industrial appliances, sound equipment, X-

ray equipment ..., welding equipment and any new articles developed in the famous Philips laboratories ... in Europe' (*Advertiser*, 2 February 1946).

An advantage of the Hendon plant was that the main factory buildings were located a safe distance from residential areas, leaving ample space for additional production and storage facilities. In 1949, Philips Australia doubled its authorised capital to £1 million to finance expansion (*Advertiser*, 7 January 1949). The first Hendon expansion in 1955 was related to Australia's start with television broadcasting in 1956. The company built new facilities to produce components like TV picture tubes, tuners, coils, condensers and transformers. The Hendon plant assembled Philips television sets, but its main business was to supply componentry to Australia's assemblers of radio receivers which added TV set assembly to their operations. The required technology was not overly difficult, but was predicated on access to key components.

[Figure 2 about here]

The plant expanded further during 1958 with the enlargement of the valve factory and in 1959 a new £400,000 transistor factory, producing a range of semiconductor devices - transistors and diodes. In 1960, the Prime Minister laid the foundation stone of the Robert Menzies Research Laboratory for fundamental research benefiting the electronic industry. Despite the growing production of transistors, Philips Australia persisted with valve production during the 1960s, as assemblers continued to sell valve-based radio and TV sets in Australia.

The plant grew so quickly that by 1962 it had an accumulated investment of over £10 million, a 78 acres site, 20-acres of floor space for production and storage, five miles of paved roadway connecting more than 30 buildings and 'excellent working conditions and amenities' (*Mingay's Electrical Weekly*, 15 June 1962: 45). By then, the Hendon plant also produced shavers, fans, record players, and other domestic, industrial, and defence equipment. It was a highly diversified production facility with many different departments (Keukenmeester 1966). In 1966, the firm added a new factory for subsidiary company Telecommunications Company of Australia Pty Ltd (*Mingay's Electrical Weekly*, 4 March 1966: 4). In 1970, it opened a new \$1 million factory to produce integrated circuits (*Philips Reporter*, August 1970; *Miniwatt Digest*, July-August 1970:

50-51). At its opening, there were plans for a further \$300,000 extension of its IC production capacity (Dunstan 1970: 2).

[Figure 3 about here]

While Philips Hendon was responsible for improving and expanding the onsite facilities, it depended on the State Government and local councils to provide relevant off-site services. It initially experienced difficulties, because Playford had not signed off on specific amenities. The plant required uninterrupted electricity supplies, but suffered blackouts because SA's electricity generation was affected by occasional strikes at NSW coal mines that interrupted supplies (Dickson 1975: 113). Following a major two-month coal strike in 1949, Playford announced that his government 'had taken steps to ensure continuous power and gas supplies' (*The Announcer* (newsletter), July 1950: 26).

The transport facilities Leddy had requested initially remained modest. Dickson (1975: 113) wrote that access to the factory

... was to some extent aggravated at Hendon by the lack of transport services and roads. The State Government later provided one access road between Port Road and Tapley's Hill Road and 'the factory was out in open country in flat paddocks', with 'public transport ... poor at the start. From the city, the bus would stop along Port Road, but the bus stop was a mile walk along muddy tracks to the factory. There was a little 3-carriage train running morning and evening between Henley and the city which called at Hendon on its way.

Public services improved with residential development and the increase in employment at the Hendon plant to 870 by 1947, 1,100 in 1951, 3,200 in 1957 and a peak of 3,500 in 1960, of whom 45 percent female.

A manufacturing plant with large numbers of employees affects the immediate built environment. Material impact includes local public amenities, such as road and rail transport infrastructure, electricity, gas and water supplies, the co-location of associated suppliers, and

also public services for employees and their families such as public housing, schools, hospitals, and transportation. While many were financed by local or state governments, others depended on private sector suppliers. Social impact includes changes in the employment opportunities and living standards of workers living in the vicinity, in the mix of employed and unemployed, and – in the case of post-war Adelaide – in the ethnic mix of citizens due to inward migration. Accompanying this were changes to facilities for human interactions, such as social clubs, churches, sporting clubs, welfare and social support groups.

The Philips plant was not the only factor influencing the Hendon suburb and the wider Woodville council area. After all, by 1946, the suburb of Hendon had existed for 25 years. The plant site had been an airfield before the Department of Defence acquired it in 1922 and suburb construction started in 1927. The Department constructed two factories to produce rifles, sub-machine guns and ammunition in 1939. Workshops and storage facilities spread across the former airfield, employing 2,700 in 1942 until closure in 1945 (Harris 2021).

Philips Hendon also was not the only large manufacturing company in Adelaide's north-western suburbs, as mentioned. Firms in the region produced durable goods, heavy industry, non-electrical machinery, and fabricated metals, although most employees were in automotive and electrical machinery manufacturing. In 1957, about half of Adelaide's factory workers lived in Woodville, Port Adelaide and Hindmarsh (Marsden 1977: 231). More than a quarter of all the residents were manufacturing workers who travelled under 5 kilometres (3 miles) from home to work (SATPC 1962: 147). By 1967, the Woodville-Hendon industrial area was the largest in Adelaide, in terms of acreage, containing the most factories and the highest number of factories with around 14,000 employees or 15 per cent of the state's total.

In communications with Playford and state public servants in 1945, Leddy had extolled the virtues of the social development model that the Philips parent company implemented in The Netherlands. There, the parent company was well-known for its concerns about the social welfare of its employees and its use of industrial welfare measures, such as employee association and company housing (Sluyterman 2012: 322-3). Leddy had indicated his intention to replicate the 'family-oriented nature' of the parent's corporate culture in Hendon, because Playford reiterated it when announcing Philips' move. He stated that the parent company had a good

reputation for the benefits it extended to its employees, characterising it as a 'family system', and noting that Philips Australia would:

... provide scope for employment for graduates of the University, School of Mines and technical colleges ... introduce a training system for promising young members of the staff to ... become fully qualified engineers and to obtain overseas experience. Scholarships would ... be provided by the company. ... Close contact between management and staff ... Social welfare schemes would be provided. They would include superannuation, sports clubs, canteens, housing and medical attention ... The firm would endeavour to preserve and extend what had become known as the "Philips family system." (*Advertiser*, 2 February 1946).

This corporate culture and approach to industrial relations was not something familiar to many Australian firms. Most likely the SA authorities, keen to maintain the state's reputation and comparative advantage as having fewer industrial disputes than its interstate rivals, would have considered such an approach a 'good fit' (Stutchbury 1986).

Philips Australia orchestrated the transfer of equipment from Sydney during April-December 1946 (Keukenmeester 1966: 33). By June 1946 about 100 employees were working at the Hendon plant. It was anticipated that all equipment would be installed by year end (*The News*, 18 June 1946). By November, 150 employees had arrived from Sydney and total employment at Hendon was 570 (*The News (Adelaide)*, 19 November 1946). Playford formally opened the factory in April 1947 (*Radio Electrical Weekly*, 5 May 1947: 9-10, 28, 33, 43).

Responsibility for recruitment and other aspects of day-to-day management in Adelaide, were in the hands of the Philips Hendon management team, particularly the factory manager. The first factory manager was John 'Jack' Cuthbert Oliver. He had been works manager of the Commonwealth Government small arms factories in NSW until recruited by Leddy (*Advertiser*, 2 February 1946). He had experience with recruitment and housing of employees. Apart from planning the move of equipment from Sydney during March-April 1946, Oliver arranged publicity in regional SA newspapers for the job and apprenticeship opportunities available to young men and women at the Hendon plant.

Oliver died unexpectedly in July 1947. Two Sydney arrivals then shared responsibility for factory management: Henry John Willy van Steenis and Samuel 'Sam' Owen Jones (*Advertiser*, 21 April; 26 July 1947). Van Steenis had joined Philips in The Netherlands in 1925, had been dispatched to Sydney in 1938, before moving to Hendon in 1946 as Chief Accountant. Neither had experience with hiring staff, but Oliver had already recruited Adelaide local William C. 'Bill' Lean in 1946 as personnel manager and Industrial Officer (Numann 1954b: 265; Dickson 1975: 112). Lean had been personnel manager at the Hendon munitions factory. He was familiar with local employment conditions and SA's industrial relations. He was crucial in recruiting suitable employees quickly and ensuring there was housing for them. Lean remained in this role until 1966, when he became a Commissioner of SA's Industrial Commission (*Canberra Times*, 1 July 1966).

Oliver's successor Diederik 'Dick' van Amstel arrived in 1950. He had worked at Philips in The Netherlands 1941-1946 and during 1947-1949 in Barcelona. Van Amstel was factory manager, production director and chief engineer at Hendon during 1950-1959, living with his family in upper-class Millswood, about 15 km from the factory. His successor was Marinus Nicolaas 'Bob' Keukenmeester, who had joined Philips in The Netherlands in 1932 and had arrived in Hendon in 1948 to take charge of valve production. Keukenmeester took Australian citizenship in 1959 and retired in Adelaide in 1971. Van Steenis was an administrator, Van Amstel and Keukenmeester were engineers. None had experience with stakeholder engagement, but they did share first-hand experience of the Philips parent company's model of industrial welfare for employees. It seems likely that this experience, together with Bill Lean's approach to industrial relations, influenced the way corporate culture at the Hendon plant took shape.

One aspect of the Philips corporate culture, summarised by Playford as the 'family system', was that 'close contact between management and staff would be a feature of the organisation' (*Advertiser*, 2 February 1946). Leighton Lord, one of the senior general managers at Philips Hendon, added:

With the knowledge that they will be doing something definite to brighten the lot of those who toil, our new employees can be assured that the company will do everything to make their work a pleasure ... to improve the company's products or

the conditions of the employees [sic]. It was the aim of the company to set a new high level of employe-employer [sic] relations, and to make happy and contented those who joined the company and its new venture (*Advertiser*, 5 February 1946).

An interview with Bill Lean on the difficulties with recruitment in 1946, summarised his experiences:

The Tube Division was the last to come over. To find the girls for this department was very difficult; he had to go to schools, advertise over the radio or try blatant robbery from other places. The first girls taken on were not very satisfactory, but slowly a selection was made and at the present time the girls employed rate very high. Employees like the working conditions, and their surroundings, and so the story spreads that "Philips is a good place to work" - a headline that has been used time and again .... Lean thinks that if television starts ... he ... expects that it will be possible to attract some 60 people a month ... half of whom ... would be New Australians. (Numann 1954b: 265).

Despite the initial difficulties, employment at Philips Hendon increased rapidly during 1946-1960. Unfortunately, details of the composition of this labour force are not available. The proportion who had relocated from Sydney was relatively small. The company recruited many of its 3,500 employees in 1960 locally, possibly among former employees of the Hendon small arms factory, while others were new migrants to Adelaide, from overseas and regional SA.

The diversity of the workforce was a source of pride for the company. Its in-house magazine in 1954 claimed that workers at Hendon came from '21 nationalities ... an indication of the cosmopolitan character engendered in Australia by its many immigrants' (Numann 1954b: 267). A local newspaper earlier described how Philips Hendon employed about 80 migrants, mostly women, and offered them English language courses. Their work, Bill Lean explained, was 'slightly more complicated than in other places' and required a migrant to 'speak and understand a little English' (*The Mail* (Adelaide), 17 December 1949). In 1950, 100 immigrant 'new Australians' employed at Philips Hendon were following English language classes at the plant (*The News*, 28 March 1950). The company published a booklet that translated Australian

colloquialisms into four languages for use by 'new Australians' at the Hendon plant (*The News*, 18 November 1950).

[Figure 4 about here]

During the 1950s and 1960s, Philips Hendon employed increasing numbers of 'new Australians', particularly from continental Europe. In 1960, its new Menzies research institute recruited scientists from the UK (*New Scientist*, 7 July 1960). A significant number of the new Australians were from The Netherlands, some having been Philips employees there who specifically migrated to Adelaide to work at Philips Hendon. For example, former Philips employee and 1952 arrival Kees Beens was later featured in a Dutch newspaper as a successful migrant working at Philips Hendon (*Eindhovens Dagblad*, 13 February 1957). Both Philips Hendon and Adelaide accumulated a vibrant Dutch community, which led Keukenmeester and other Dutch migrants to establish the Dutch club in Adelaide (*The News*, 19 July 1950).

From the outset, the company sought to recruit and retain employees through apprenticeships and training facilities:

The management have instituted a trainings scheme to give young men and women opportunities in radio and electrical trades hitherto impossible on such a scale. It is through people like these and their making full use of the advantages offered to them by firms such as Philips, that the industrial stability of Australia will be built (*Radio Electrical Weekly*, 5 May 1947: 16).

Philips Hendon advertised to attract boys with intermediate and leaving certificate level schooling for its apprenticeship schemes. These schemes, it claimed, could see young men 'advance to senior positions in design work, production management and executive work'. After a five-year apprenticeship, selected individuals would be encouraged to take diploma courses at the SA School of Mines and then be employed in engineering positions. By 1955, 28 had completed their courses, and the firm looked to expand the scheme (*Advertiser*, 1 December 1954: 25; *Announcer*, April 1955: 99). By 1966, it had 100 apprentices on its payroll, with 20

finishing their apprenticeships each year. The company received 100 applications for every 20 positions (Keukenmeester 1966: 34).

The male apprentices were important for the building, installation and maintenance of machine tools. Precision process work, however, required the dexterous fingers of young women for the assembly of radio valves, transformers and aerial coils. The explicit aim was to minimise the proportion of defect products (*Advertiser*, 6 February 1946). Philips in Sydney had mostly employed women for this purpose, but most did not move to Adelaide. The 1946 expectation was that the company would initially recruit at least 500 women, selected for their aptitude to do precision work.

By 1954, the firm sought between 300 and 400 girls a year for 6 to 8 weeks training. The work 'involved all kinds of precision work in quiet and pleasant conditions'. To distinguish the work in its Hendon factory from that in nearby heavy industry companies, the firm's description continued: 'Machinery consists mainly of quiet little lathes and winders, testing machines, dials and flashing lights. The plant has more the appearance of a jeweller's workshop than a conventional factory' (*Advertiser*, 1 December 1954: 25; *Announcer*, April 1955: 99). In 1954, 400 of the 1,000 employees at Philips Hendon were female (Numann 1954a: 229). The company treasured them. In 1954 it appointed SA's only industrial psychologist, Dorris Shelor, as welfare officer in its personnel department where 'she looks after the welfare of 450 women' (*The News*, 16 December 1954).

Housing was a major bottleneck for Philips Hendon in the late 1940s. Although Playford had promised to provide housing for workers moving from Sydney, 'they were initially not adequate.' (Dickson 1975: 113). The company was not the only enterprise experiencing housing as a major constraint to recruitment, as there were housing shortages throughout Woodville in the late-1940s. A pre-war survey by the State Government had found that over a quarter of rental houses in Adelaide were effectively slum dwellings. Over 9,000 people lived in houses that were 'totally unfit for habitation' often lacking running water and proper cooking facilities. The 1936 Housing Trust Act established the SAHT, which was empowered to select cheap, available land on which it built semi-detached, economical houses of a 'mass-production' type, but superior to the existing sub-standard rental housing (Marsden 1986).

The SAHT initially focused on the northwest of Adelaide, where land was flat, unoccupied, and cheap. The housing estate it constructed near Woodville and Finsbury soon became the Trust's biggest housing development. Figure 1 shows the rise and decline of SAHT-built homes in the metropolitan area, and the number of detached homes (public and private) built in the Woodville Council area from the late 1930s until 1970. SAHT activity was concentrated on the Woodville area during 1938-1948, and stalled during the War years, before increasing quickly after 1946.

[Figure 5 about here]

By 1946, SAHT had built around 2,000 homes near Hendon. It had also created a business model to provide housing in SA for the next 25 years. SAHT's inexpensive housing was integral to the state's ambition to advance industrialisation. By lowering the general cost of housing, companies could pay lower wages, while workers still maintained reasonable living standards. SAHT also undertook urban planning and coordinated the construction of infrastructure, contributing to government efforts to attract manufacturing enterprises to Adelaide.

The initial difficulties of finding accommodation for employees transferring from Sydney were acute. Bill Lean had 'tracked boarding houses down with all the relentlessness of a good impresario until he finally managed to wrangle over 200 people into some kind of accommodation ....' (Numann 1954b: 265). In cases where 'houses were provided by the South Australian State Bank and the Government Housing Trust ... Philips agreed to guarantee the finance for these' (*Radio Electrical Weekly*, 5 May 1947: 13). According to Philips' in-house magazine, 'most generous arrangements were made by the State Authorities to make these homes available at a cost lower than anywhere else in the Commonwealth. The conditions to purchase these houses were so attractive that every member of the staff has decided to buy the house allotted to them.' (*Announcer*, July 1947: 6).

In February 1946, Leddy had announced that Philips Australia would build 'brand new, up-to-date housing accommodation' for 150 families of staff who would migrate from Sydney. These were the SAHT houses promised by Playford. For Leddy these houses were part of the company's aim to provide.

a replica of the model conditions enjoyed by Philips employees at the firm's headquarters in Holland ... [where] ... workers are housed in special villages equipped with sports grounds, concert halls, theatres, and other recreational facilities. They have their own medical services, schools and cooperative stores ... pensions ... and ... funds for the education and training of workers' children. ... We realise, however, that Australian workers are not keen on being settled in community housing projects connected with their work, and ... we are arranging to scatter our houses in different areas.' (*The Mail*, 2 February 1946).

Staff houses were built by the Trust at an average cost of £1,450 each, with mortgage payments of £2 per week (Dickson 1975: 113-114). In 1960 the average annual male wage in SA factories was £1,088 (ABS 1962). With the ratio of house price to annual income of 1.3 and an average repayment around 10 percent of weekly earnings, the affordability of housing compared very favourably to Sydney at this time (Stapledon 2012).

Despite these efforts, housing supply trailed the growth of employment. In contrast to the Philips workers transferred from Sydney, many from regional SA initially took temporary accommodation. Like the wartime employees at the Finsbury and Hendon munitions factories, these temporary arrangements, included rooms in over-filled private homes and boarding houses, portable sleepouts, newly built hostels, and low-cost timber and asbestos cottages (Marsden 1977).

Foreign migrants arriving in Adelaide increased the demand for housing. The first were 'displaced persons' from the International Refugee Organisation, followed by migrants from the UK and Europe. By 1960 migration had added 1.2 million people to the Australian population, and by 1970 a further 1 million (ABS 2022). Between 1947 and 1960 the state's population increased by over one third (SATPC 1962: 47). Overseas migrants contributed 97,000 of Adelaide's 206,000 population increase between 1947 and 1961 (Merrett 1978: 190). The SA government managed four migrant hostels and the Commonwealth Government administered 14 hostels in Adelaide (Varacalli 2009). Two were in the vicinity of Philips Hendon, with the Hendon hostel starting in 1949. It had previously accommodated 170 workers of the Department of Engineering and Water Supply. The Finsbury (later Pennington) hostel had accommodated

over 2,000 munitions workers in converted army huts (*The Mail*, 9 April 1949: 1). Many of the migrants in the Finsbury, Hendon, Semaphore, Woodville, Rosewater and Seaton hostels are likely have worked in local factories such as Philips Hendon.

Employers could be allocated workers if they provided migrants with accommodation. Many migrants left the hostels after they found alternative housing or demonstrated they were building their own residence (Marsden 1977: 251-252). However, it took until the mid-1960s, before most temporary constructions had been replaced by proper houses. This was the peak of the SAHT's activity and many workers at Philips Hendon and their families are likely to have purchased Trust houses nearby, while others acquired land in new nearby suburbs.

New SAHT housing complexes emerged in the vicinity, as in 1947 when it built 105 pairs of maisonettes along Tapley's Hill Road near the Philips site (*Advertiser*, 17 July 1947). By then, SAHT had built 2,500 houses near the Woodville and Hendon industrial areas, which factory workers were renting at 14/6 to 22/- per week (*The Guardian* (Perth), 23 May 1947). Most of the Philips employees must have relied on SAHT to leave their temporary accommodation and move into more permanent housing. Figure 1 indicates that SAHT drastically increased the housing stock in Adelaide during 1947-1970, completing on average 2,500 houses annually during 1951-1967. Two years of SAHT construction would have been enough to house all Philips Hendon employees.

The influx of workers and their families made the construction of a new schools necessary. In 1949 a new school was located on vacant land opposite the Philips Hendon plant (*The News*, 1 June 1949). Philips Hendon contributed to local schools, in various ways, such as through the donation of mock street traffic lights that were used in road safety education (*The News*, 7 September 1949).

The wide diversity of churches built in the area testifies to the range of immigrant communities. Suburbs that were predominantly Anglican during the 1950s, contained many other denominations by the 1970s. Lutheran and Catholic parishes were organised around their Polish, Italian, Yugoslavian, Latvian and Estonian communities. Some established religious schools, while others funded orphanages, convents, fellowship halls and community centres. Many soccer clubs and welfare associations were organised around the countries of origin of migrants (Rainbow 2012). The Woodville branch of the Good Neighbour Council was established

in 1949 to assist with the integration of new arrivals (Marsden 1977). The Woodville Council started holding naturalisation ceremonies in its own buildings and not in court. These community institutions remained after Philips Hendon closed and other manufacturers departed from the area.

Whether to retain employees or simply to replicate the 'family system' of the global company, Philips Hendon established a reputation for nurturing a supportive corporate culture. This was most likely appealing for new workers who arrived without social ties in Adelaide. Philips Hendon made its facilities available to offer low-cost entertainment options, particularly sport. This also fostered a degree of company loyalty, which was important for employee retention at a time of labour shortages (Numann 1954b).

With high labour turnover in Australian industries in the early-1950s, Frits J. Philips, son of the founder and vice-president of the Philips parent company, on a visit to Adelaide stated that 'goodwill on both sides' (employer and employees) was critical for efficient operations (*Advertiser*, 11 November 1951). He supported A.P. Rowe, Vice Chancellor of the University of Adelaide, who argued for the need to inform workers how 'useful jobs fitted into the pattern of community life' and to excel rather than see themselves as a mere 'wage slave' (*Advertiser*, 15 November 1951). In a letter to the editor, Adelaide social reformer Barbara Heaslip noted that social science research at Philips in The Netherlands had demonstrated that improving a worker's 'status and sense of importance and ... his ability to identify himself with his product' contribute to mitigating industrial unrest (*Advertiser*, 19 November 1951).

The social model of the Philips parent company included interactions between company management and employees, and nurtured a corporate culture that provided a sense of belonging. At the plant opening in April 1947, visitors were impressed by the

... atmosphere of contentment among executives and staff. ... It is typical of the atmosphere ... that the whole of the staff are members of the Philips Sports and Social Club. (*Announcer*, July 1947: 6).

The company proudly claimed not to have lost a single day to strikes over 55 years of operations around the world, and that in SA 'Philips are confident that these happy relations will continue to exist' (*Radio Electrical Weekly*, 5 May 1947: 16).

The parent company compared the output of Philips Hendon with that of its other plants around the world. In 1961 the valve department won the 'Van Beusekom Award' for production quality by producing the lowest percentage of product rejects among all Philips factories. Receiving the award in The Netherlands were Keukenmeester and Hendon employee J. Lemmens, who: '... referred to the pleasant atmosphere and the spirit of good fellowship at the Hendon works,' (*Announcer*, July 1961: 7). Philips Hendon won the award five years in a row.

The Philips Hendon employee club was important in nurturing this atmosphere:

The Philips Social and Sports Club [was] supported by the company, which [helped establish] sports fields and tennis courts, [a] ... canteen and [in] support[ing] staff with shopping difficulties ... a well-known Adelaide department store ... exhibit[s] products at Hendon, ...[and] delivers orders. An excellently furnished medical clinic ... during work hours, cares for the health of personnel (*Dutch-Australian Weekly*, 19 December 1952).

The club organised company picnics for workers and families, and the annual Philips Industries Ball. The company supported the Adelaide Eistedfodd choir contest, and an annual Miss Philips contest whose winner entered the Miss South Australia Quest. The company participated in Dutch festivals, especially around Christmas, when the workers' children, and youngsters from nearby children's homes, received presents from Father Christmas made by the employees in their spare time (Numann 1954b: 264-265).

Many of the company's amenities were in place right from the opening:

Hendon lacks nothing in amenities. Special bus services bring workers from various suburbs ... A splendid .... First Aid Post handles sickness and accident cases. A modern canteen provides excellent meals at modest prices. There are spacious lawns [with] fresh air and sunshine (*Radio Electrical Weekly*, 5 May 1947: 13).

Philips supported team sports, not only with an on-site sports field for internal games, but also with teams in several local leagues, including cricket, Australian Rules football, soccer, tennis, and baseball. The teams also played against other factories (Numann 1954b: 265). Philips supported both men's and women's soccer teams in the local amateur leagues. For recent

immigrants, this sport most likely represented a reassuring link to their former homes, while promoting team building and company identity.

In 1964 Philips Hendon used the slogan 'personnel are more important than machines' (PEI 1964: 21). By then the Hendon site boasted three lunch canteens, shopping facilities, three parking lots, a medical clinic, training systems and facilities for safety courses and supervisory training, and multiple sports facilities. The company noted 'these are all part of a plant which is repeatedly held up by Industrial Inspectors as a model industrial undertaking' (PEI 1964: 21).

There is no record of a strike at the Philips Hendon plant, even during the 1970s when employment at the plant decreased and production was relocated away from SA. These impressions of the corporate culture at Philips Hendon suggest that the company made concerted efforts to support its employees and other stakeholders in Adelaide, and contributed to building the social capital that sustained local communities in north-western Adelaide.

After peak employment in 1960, Philips Hendon experienced decreases in employment to 2,500 in 1964, 2,150 in 1969 and 818 in 1974. As a share of total employment of Philips Australia, Philips Hendon decreased from 88 percent in 1960 to 41 percent in 1969, and 11 percent in 1974. Increased automation at Philips Hendon was one reason; for example, automated production of transistors replaced labour-intensive valve production. The main reason, however, was that the company invested in new subsidiary firms. Its high profitability and limitations on profit transfers to The Netherlands caused it to invest in ventures such as a factory producing light fittings in Brookvale (NSW) and a telecommunications factory in Moorebank (NSW). By the 1970s, Philips Hendon was one of several Philips factories in Australia.

Despite the opening of the new integrated circuit factory, much of the Hendon infrastructure was dated by the 1970s. Its distance from key markets along Australia's east coast also started to weigh on costs. Following import tariff reductions in 1973, then MD Herman Huyer expressed concerns about the future of electronics production, particularly componentry, in Hendon (*Philips Reporter*, August 1973). With the introduction of colour TV, Hendon's factories for valves, monochrome TV tubes and components which employed 250 were closed (*Sydney Morning Herald*, 27 September 1974). Further tariff reductions accelerated the process by which the company closed other production facilities and distanced itself from the Hendon plant.

In 1979, Hoyer called Philips Hendon a 'ghost town' employing 258 people, where 'only the integrated circuits business is profitable' (*Philips Reporter*, May 1979). The company sold the Hendon plant in 1980, leasing back some space to produce ICs and industrial equipment. By the 1990s, only the semiconductor facility remained, designing ICs and producing silicon wafers, largely for the defence industry, until Philips Australia spun it off in 1997.

## **Conclusion**

The 1946-1980 rise and decline of Philips Hendon follows a trajectory familiar to much of Australia's post-war manufacturing. Reduced tariffs in the 1970s and 1980s allowed increasing imports of electrical and electronic products into Australia. Japanese manufacturers were exporting high quality, competitively priced goods attractive for Australian consumers. Philips Australia, and other companies in the industry first downsized, then closed their factories. By the late-1990s, few large-scale factories producing electrical and electronics goods remained in Australia.

The changing fortune of Philips Hendon is a classic case of the post-war efforts of governments encouraging industrialisation to advance local economies and societies. In SA, state and council governments built housing, transportation infrastructure, water and energy supplies, and worked to lower industrial disputes, to attract and retain manufacturing firms. The efforts created jobs and raised living standards. In the case of Philips Hendon, this was ultimately dependent on import protection. The reduction of import tariffs made it difficult to sustain production in a high-cost environment based on relatively small scale production.

Although closed by the 1980s, the plant's 35 years left a mark on the social and physical capital of Adelaide's north-western suburbs. At the community level, the creation, growth, and decline of Philips Hendon impacted the lives of its employees and their families. Many had arrived as local and foreign migrants after World War II. State and local governments initially scrambled to provide the housing, transport and other facilities needed. Those services gradually improved, as the newcomers settled and established their families. Philips Hendon, together with other manufacturers in the vicinity, contributed to changes in the characteristics of these suburbs.

Philips Hendon was a manufacturer with strong links to an advanced multinational enterprise. It required both lower-skilled workers in assembly operations as well as skilled workers in technological development and the installation and maintenance of advanced machine tools. Together with other manufacturers, the Philips plant directly impacted on both the demand for labour and their skills, raising productivity in the manufacturing industry, household incomes and the proportion of women working in factories.

In the suburbs around the factories, the density of housing increased, as did the proportion of people born overseas. Council revenues increased, allowing them to improve local roads, public transport and parks as well as social amenities such as education, health and aged care. Philips Hendon supported social, artistic and sporting events which enhanced community cohesion and social capital. The post-war changes to Adelaide's western suburbs serve as a microcosm of the changes that were generated by the expansion of manufacturing in many parts of Australia after 1945.

The arriving migrants brought their traditions, languages, and cultures, while also creating new lives for themselves. Firms like Philips Australia brought with them their products, production techniques, work culture and views on their role in the community. At Hendon, Philips practiced a corporate culture that valued its workers and created products that found ready markets in Australia. In all that, the company was successful for 25 years until a necessary rationalisation of production spelled the end.

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*Table 1: Average Annual Increase of Australian Population and Factory Employment, 1947-1963*

	State population increase %	Factory employment			
		State increase %	Metro-politan increase %	Rest of state increase %	Metropolitan actual number
New South Wales					
1947-1954	1.98	2.23	1.73	3.88	35,099
1954-1963	1.88	1.84	1.78	2.01	53,135
Victoria					
1947-1954	2.56	3.20	2.82	<b>4.94</b>	47,426
1954-1963	2.49	2.04	<b>2.11</b>	1.73	55,337
Queensland					
1947-1954	2.53	4.53	4.61	4.41	15,290
1954-1963	1.93	0.73	0.99	0.35	5,294
South Australia					
1947-1954	2.84	2.80	2.20	5.18	4,551
1954-1963	<b>2.65</b>	<b>2.35</b>	1.93	<b>4.14</b>	13,457
West Australia					
1947-1954	<b>3.51</b>	<b>4.96</b>	<b>5.39</b>	3.40	11,670
1954-1963	2.12	1.32	1.46	0.77	5,285

**Notes:** For New South Wales and Queensland the figures refer to 'average employed during the period of operation', for the other States to 'average employed during year'. Manufacturing statistics for the Adelaide Metropolitan Area not available prior to 1949-1950. Total increase in South Australia 1947-1954 was 14,792.

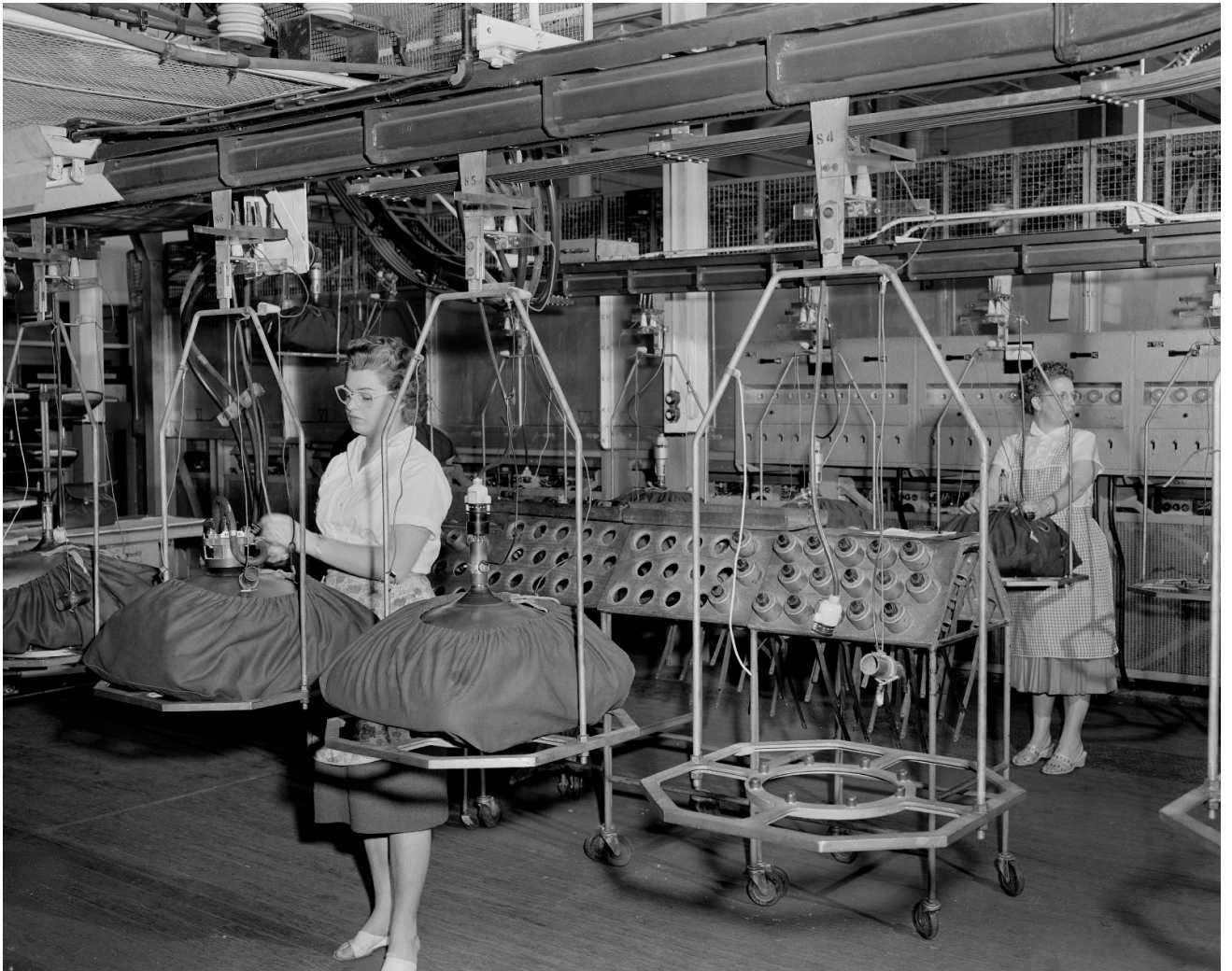
**Source:** Adapted from Linge (1967: 60-61).

*Figure 1: SA Premier Thomas Playford and Philips Australia Governing Director Frank Leddy at the Opening of Philips Hendon, 21 April 1947*



**Source:** 1942-1962 - For Mr. F.N. Leddy as a Memento of His Twenty Years as Governing Director of the Australian Group of Philips Companies, 12 June 1962 (unpublished document).

*Figure 2: Production of Television Picture Tubes at Phillips Hendon, 1960*



**Source:** National Archives of Australia, NAA A1200, L37062.

*Figure 3: Aerial View of Philips Hendon Plant, 1962*



*Source: 1942-1962 - For Mr. F.N. Leddy as a Memento of His Twenty Years as Governing Director of the Australian Group of Philips Companies, 12 June 1962 (unpublished document).*

Figure 4: After-Work English Language Class for 'New Australian' Migrant Employees at Philips Hendon, March 1950



Source: 'They're learning our language', *The News* (Adelaide, 28 March 1950).