# Potential economic and industry impacts of the imposition of a truck driver Certificate of Professional Competence in Australia.

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#### **Abstract**

In 2003, the European Union (EU) introduced a requirement for a Certificate of Professional Competence (CPC) for professional truck drivers operating within the EU. There has been recent discussion of imposing a similar requirement in Australia. This paper reviews the experience of EU trucking industries thus far and assesses indirect benefits and costs of three types: (1) Financial (to trucking firms and industry); (2) Economic (to market sectors); and (3) Social/External (to society as a whole). Based on this analysis of experience in the EU, the paper preliminarily discusses how these issues might play out if a CPC similar to the EU regulation were to be imposed in Australia.

### 1. Introduction

In 2003, The European Union issued Directive 2003/59 requiring all professional bus, coach and truck drivers to hold a "Driver Certificate of Professional Competence" (CPC). This requirement is in addition to any current professional licenses such drivers hold. This sweeping and extensive policy mandate was justified by EU decision makers as being "intended to improve road safety and the safety of the driver…and [to] arouse young people's interest in the profession, contributing to the recruitment of new drivers at a time of shortage." Savings in fuel usage and associated environmental benefits were also posited as it was argued that better trained drivers would be better stewards of their vehicles (EC 2003).

Will the EU CPC achieve all of these results? If so then this may well be an example worthy of being copied elsewhere, including Australia. But if such results are not likely to be obtained then the policy's costs, which are relatively large, may not outweigh its benefits. This paper therefore reviews the EU's early experience with the CPC focusing only on the freight driving sector (the passenger bus sector being excluded from the analysis for simplicity) and, very preliminarily extrapolates from that experience to discuss potential benefits and costs of such a measure in Australia. While no firm conclusions are reached as to net benefits of a CPC, some of the significant issues to be considered will be outlined.

The paper is structured as follows: section 2 reviews the EU CPC policy and experience; section 3 analyses potential benefits and costs to the freight trucking sector if an EU-style CPC were to be imposed in Australia, based on the EU experience; section 4 analyses some important issues surrounding implementation of an Australian CPC; and section 5 discusses conclusions.

### 2. Review of the EU CPC policy, experience and initial impacts

### 2.1 Structure and implementation of the EU CPC

In 2003, The European Union issued Directive 2003/59 requiring all professional bus, coach and truck drivers to hold a "Driver Certificate of Professional Competence" (CPC). This requirement is in addition to any current professional licenses such drivers hold. For new drivers there is a new "Initial Qualification"; for new and existing drivers, there is then a requirement for Periodic Training of 35 hours every five years to keep the CPC current (EC 2003).

EU countries are given two options for implementing the Initial Qualification. Option 1 requires a minimum training period of 280 hours, combined with a written or oral test, while Option 2 requires testing only. For countries taking up Option 1, there is an accelerated training option possibility of 140 hours that can be offered to qualified drivers. EU Countries have until 2014 to comply with the Directive (EC 2003).

Although the EU Directive is a broad mandate in one sense, the allowance for relatively divergent options for implementation of the Initial Qualification means that it is not uniform. Additionally, because of the diversity of national governments within the EU, there have been a wide range of driver requirements actually put in place through individual national legislation, a flexibility that the Directive allows.

CIECA, The International Commission for Driver Testing, conducted a survey of its members and found that of the 26 respondents (which covered most, though not all, of the EU countries) for Initial Qualifications 10 countries used Option 2 (testing only), 14 used Option 1 (course attendance and testing) and 2 had both options available (CIECA 2010).

Therefore the EU CPC is not so much a single policy as it is a broad framework implemented across a variety of governments applied across of variety of conditions.

#### 2.2 Justification for the CPC

The Directive authors predict the effects of the CPC in paragraph 5 of the preamble to the Directive (EC 2003):

"the obligation to hold an initial qualification and to undergo periodic training is intended to improve road safety and the safety of the driver, including during operations carried out by the driver while the vehicle is stopped. Furthermore, the modern nature of the profession of driver should arouse young people's interest in the profession, contributing to the recruitment of new drivers at a time of shortage."

To ensure that this basic intent is carried out, the Directive spells out, in general terms, the topics that training and testing must cover, including "Health, road and environmental safety, service, logistics".

These are, of course, all beneficial and desirable outcomes. The Directive does not consider or measure the costs to be absorbed in achieving the benefits described above. In fact, the document does not contain a single mention of the word 'cost'. However there certainly are costs to such a policy. Although the policy is still too new to be definitively analysed in benefit-cost terms, there is enough information and experience emerging to indicate potential net impacts on the European freight trucking sector. (For simplicity this paper does not consider impacts on the passenger bus industry, an important but smaller sector with relatively fewer broad economic impacts).

### 2.3 Direct Costs of the CPC to the EU freight trucking sector: early indications

The EU is not only diverse politically; it is also a fragmented set of road freight carriage markets integrated under a common market area. Only part of the EU uses the Euro as a currency and only part of the EU is included in the Schengen Area which allows visa free travel between countries. (The UK, considered in more detail below, is one of those countries in the EU yet outside both Eurozone and Schengen Areas). This diversity of EU institutions is, of course, compounded by a diversity of individual national governments within the EU.

Thus there are still quite varying trucking markets in each individual country operating under a wide variety of local driving and road regulations and operating conditions (EC 2006). This, along with differing economies, topography and spatial positions within the European supply chain, mean that one local trucking market in the EU will likely be quite different from another.

Within the EU, Germany, France and Spain accounted for almost 60% of the total of the 58,000 km of motorways. Approximately 60% of cabotage tonne-kilometres in 2004 were undertaken in France and Germany, and another 20% in the UK and Italy (Eurostat 2007).

Of course the most obvious immediate impact of the CPC on any EU trucking market is the imposition of direct costs for training and compliance, costs which must either be absorbed by industry or passed on to shippers or some combination of both. As mentioned above, the EU did not estimate the potential costs of a CPC before promulgating its policy.

However the CIECA survey found a range of training fees for Initial Qualification (IQ) with Option 1 fees from €8,600 in Norway to €580 in Lithuania. Option 2 fees ranged from €68 in Cyprus to €890 in Switzerland (CIECA 2010).

There was an equal range as to who bore the costs of the IQ. Funding arrangements varied widely across EU countries. According to CIECA, some country governments paid the costs, partially or fully, while there were various cost-sharing arrangements between firms and trainees where public subsidy was limited or unavailable (CIECA 2010). The direct costs do not end there, of course, for drivers have to take time out to train and to take the test and this time represents wages lost to drivers and service output lost to carriers.

These direct costs add up. The UK government estimated that for freight carriers, £21m would be the annual bill for industry training (including lost wages) using the option ultimately employed there, i.e. Option 2 for the IQ. (£7m was the cost for the passenger carriage industry). Periodic Qualification (PQ) for the whole industry was even more expensive, amounting to £109m and £42m for the freight and passenger sectors respectively (UK 2007). The Irish government, which also chose Option 2, estimated an annual cost of €44m for the IQ and €25.65m for PQ (RSA 2007).

Europe wide estimates are not yet available and data are sketchy. However if one takes the numbers of new drivers per country and multiplies these by the average fees in that country as reported in the CIECA survey, the total annual estimated costs for the PQ requirements is around €95m. One can do the same for IQ and get a much larger additional number of over €500m. The separate cost estimates of Ireland and the UK would be on top of these numbers (with both countries excluded from the calculation above because of availability of more detailed specific cost estimates in both cases). (Details of the EU calculations are provided in Table 1).

Both estimates are 'steady-state' annual estimates, that is, the costs that would be incurred yearly once the CPC mandate is completely in force. The IQ estimate presented here is certainly too small because it applies to all drivers in a country, not just new ones, but is used as a conservative 'order of magnitude' floor because of current data limitations. Both IQ and PQ numbers are understated because they rely on the CIECA survey which covers most but not all affected countries (countries outside the EU were excluded from the

calculation). It certainly seems clear that basic annual industry testing and training costs, given current Option choices by individual governments would amount to at least €1 billion.

### 2.4 Indirect impacts of the CPC on the European trucking industry

These direct costs are substantial, and likely to hit different parts of different locations of the industry differently. Large carriers with large fleets, have been receptive to the CPC, partly out of resignation, since there is little they can do to roll it back, but also because they see it as a lever for rationalising their current training regimes and for putting pressure on the training sector to provide training more appropriate to their specific business needs. Pierre de Carteret, UK programme manager for Driver CPC at DHL Supply Chain has argued that in the past industry has passively accepted training offered by peak training bodies and others but that the CPC is now an "opportunity to review business needs and formalise an internal training process for our drivers" (Roadtransport, 2011).

Some in industry claim that Small and Medium Enterprises (SMEs) will be hurt by the Directive (a possibility acknowledged in both the Irish and UK reports). Large carriers have big stores of available funds and large economies-of-scale in terms of fleet management and compliance, with which to approach and meet the CPC's demands.\_Smaller carriers obviously do not have such scale or flexibility. This may lead to consolidation in the sector, since large carriers appear more able and willing to comply with CPC training requirements than smaller ones.

As for the effects of the CPC on driver labour supply, it is too early to tell. The UK and Irish analyses acknowledge the possibility that higher training requirements may discourage some from becoming drivers but do not assess its significance (except for the Irish report which asserts, without further evidence, that the CPC 'will help to redress the current shortage of drivers' (RSA 2007, p. 14). Anecdotal evidence in the UK suggests that in passenger transport some drivers see the extra costs of CPC compliance as making what used to be a marginally profitable profession no longer sufficiently remunerative (Roadtransport 2010). Whether this dynamic remains in play, and the extent to which it will operate in other countries, depends upon the extent the burden, perceived or otherwise, falls upon drivers.

Of particular concern in the EU is the differential in costs across the many national and subnational road freight markets. UK operators have argued that low-cost parts of the EU could infringe upon higher cost areas such as Britain. However the UK industry acknowledges that option 2 is a lower burden to industry than option 1 and it is possible that the UK may thus have a cost-advantage of option 2 markets.

Of course the EU CPC is only just kicking in now so ultimate impacts have yet to be determined. For example, a current concern is dislocation that might occur during the transition as the CPC takes full effect. There may be substantial reorganisation in the training sector as training clients shape training packages to suit their needs and the industry structure overall shifts.

The take-up rate of training for compliance with the CPC, at least anecdotally, appears to be quite slow thus far. The PQ requirements, which affect all drivers and requires the whole workforce to get updated training every five years, is seen as a concern industry-wide. In the UK the current estimate from Steve Ellis, head of training at the Road Haulage Association, is that only one-third of the industry there has thus far responded to the Directive requirements, with a 2014 deadline getting closer and closer. It is the smaller operators in particular where that take-up seems to be lowest. In part that is because small firms often rely on drivers to take care of their own licensing requirements, and many drivers may not be aware that compliance with the Directive falls on them (Roadtransport 2010)

A particular concern is that the Directive, being so widely applicable and so relatively frequently applied, may create crunches for both the trucking and the training industries, especially in the first round of periodic retraining due to be completed 2014 (MHW 2011).

This could have a number of implications for the trucking sector, although at this early stage the impacts are still mostly speculative.

### 2.5 A brief note on government administrative costs of a CPC

Not all costs of a CPC are to industry. In particular, government will have to administer the program in some way and this will cost taxpayers money. These direct costs to government also are not yet fully determined. The UK has 'proposed aligning CPC enforcement and penalties as far as possible with those for driver licensing generally' (UK 2007). The generic hope is that current licensing administration can be expanded to deal with the requirements imposed by the CPC. Once again this is a case of 'too early to tell.'

### 2.6 European industry benefits

The European trucking industry may benefit as well as suffer from the imposition of a CPC. The two main benefits put forward by government are improved safety (which results in lowered accident rates and associated falls in accident losses and insurance rates) and improved fuel efficiency. Both the UK and Irish governments have posited net social gains in these areas using Option 2 (though not, according to their estimates, Option 1) for Initial Qualification (RSA 2007, UK 2007).

The estimates for both benefit categories has been rough thus far. For fuel consumption, the UK government has posited 5% reduction in industry use of 11 billion litres of fuel per annum as a result of the CPC (UK 2007). The Irish government has also predicted a 5% reduction in industry fuel use valued at €153.6m (RSA 2007). However fuel consumption is affected by many factors and these estimates are essentially assumptions at this point.

The safety benefit estimates are even looser. EU Policy aims for a 50% reduction in road accidents generally. Ireland assumes that this goal will be fully met, implicitly ascribing this to the CPC. The UK assumes a 25% reduction in accidents and fatalities due to the CPC. Both countries use different values for average cost of an injury or death. Based on a 50% reduction the Irish government estimates a €63.6m annual social savings for freight trucking alone, while the UK government estimates a corresponding figure of £190m for its 25% reduction (RSA 2007, UK 2007). Once again, these numbers are guesses not based on any explicit modelling and the order of magnitude appears to be quite large. In this case also the benefit estimates are to society as a whole and not direct savings (e.g. in lowered insurance costs) to industry. Presumably industry savings would be a fraction of these larger figures.

Besides these benefits of fuel efficiency and safer driving, some claim that drivers will take better care of their vehicles and that standardised training will make driver workforce deployment and training regimes more efficient. Large carriers appear to be in initial agreement with this assessment from their own business point-of-view. If this is the case, it would suggest that benefits would mainly accrue to bigger firms which can standardise their training and implementation of fleet management to reap the gains better than small firms. If these larger firms can also achieve cost-efficiencies more effectively this would suggest two things: the CPC might in fact result in overall industry efficiencies but at the cost of industry consolidation. How this would affect shipper costs remains to be seen.

#### 2.7 European social benefits

The EU CPC Directive presumes significant social benefit as well as private industry benefit. One of these benefits – accident reduction – has already been spoken of in the UK and Ireland cases. Another societal benefit flowing especially from fuel use reduction is a reduction in pollution. The UK report indicates that its bus and truck sector produces 28 million tonnes of CO2 per annum; however the report does not indicate how much this would be reduced by the CPC (UK 2007).

Another asserted social benefit is noted in the UK report in which a statement is made that better trained drivers could drive larger vehicles and thus produce fewer journeys and thus reduce wear-and-tear on roads. However this ignores the fact that larger vehicles impose higher average burdens on infrastructure. There is no evidence or modelling presented to substantiate this claim (UK 2007).

The Irish report makes a different assertion. It notes that some disadvantaged people might be kept out of the industry by higher requirements but also claims that a more structured career path and better training may bring some people in who are currently excluded. Here too the statement has no data provided for it (RSA 2007).

#### 2.7 Net benefits of the EU CPC

Is the EU CPC requirement generating social and industry benefits greater than its social and industry costs? The presumption behind the policy is that this would be the case.

The very rough estimate of total industry costs presented below in Table 1 (at least 1 billion Euro annually) would need to be outweighed by at least that much benefit for the policy to be provide a net gain to its adopters. It certainly is possible that sufficient reductions in fuel consumption and accidents alone attributable to a CPC could make this a desirable policy since both represent large costs to industry and society at present. However the actual impact of a CPC on either factor is not currently known with any certainty.

At present it is probably best to say that the CPC is a policy experiment whose net benefits will not be clearly known until some time has passed.

TABLE 1: EU CPC DIRECT COST ESTIMATES

EU COUNTRY	New Truck Drivers Annually			Q COSTS (euro) per driver	PQ Costs (euro) per driver		TOTAL PQ COSTS PA
* Austria	,		2			0	0
* Belgium			2	400		0	0
* Bulgaria			1			0	0
* Cyprus	120	00	2	68.34		82008	0
* Czech Republic	2000	00	1	1576	180	31520000	3600000
* Denmark			1			0	0
* Estonia	500	00	1		180	0	900000
* Finland	450	00	1	6	400	27000	1800000
* France	3000	00	1	3250	427	97500000	12810000
* Germany	10000	00 mix		2700	600	270000000	60000000
* Greece						0	0
* Hungary	600	00	1	125	320	750000	1920000
* Ireland			2			0	0
* Italy						0	0
* Latvia	400	00	1	189		756000	0
* Lithuania	2	26	2	723.5	215	18811	5590
* Luxembourg	56	9	2		1000	0	569000
* Malta	20	00	1			0	0
* Netherlands	1800	00	1			0	0
* Poland	2000	00	2	2298	250	45960000	5000000
* Portugal						0	0
* Romania			2			0	0
* Slovakia						0	0
* Slovenia	350	00	1	550	175	1925000	612500
* Spain						0	0
* Sweden	1500	00	2	3800	480	57000000	7200000
* United Kingdom 2						0 505538819	0
TOTAL AVAILABLE COSTS EXCL UK AND IRELAND							94417090

Notes:

IQ = Initial Qualification

PQ = Periodic Qualification

PA = Per Annum

CIECA has provided estimates in Euros where there is a different currency except for Poland where the author estimated Euros based on exchange rates current at time of 27 February 2011.

Assumption for PQ PA costs: is all new drivers take the PQ during the year that they join the industry (i.e. # new drivers x PQ per driver cost = PA PQ cost.

Assumption for IQ costs: Same calculation as above. This is a large understatement as the IQ covers all drivers in the industry, a number much larger per country than the number of new drivers entering.

### 3. The potential costs and benefits of a potential CPC in Australia

How might an imposition of an EU-type CPC Directive impact the freight trucking sector in Australia? The EU CPC experience provides a guide to the sorts of costs and benefits that might arise. A very rough first-order calculation is made here using suggestive, though sometimes incomplete data.

Four basic questions are considered here with respect to a CPC and the Australian trucking sector.

What might the direct costs of this policy change be to the industry? How might the policy affect firm and industry profit and loss positions? How might the policy affect current truck driver labour market equilibrium? How might the policy affect sector and overall road safety outcomes?

### 3.1 Potential direct costs of a CPC to Australian freight trucking

To estimate the direct costs of a CPC imposed on the Australian trucking sector, the following assumptions are made.

- A CPC in Australia would follow the EU CPC Option 2 requirements
- Direct costs (all taken from UK Regulatory Analysis of CPC)
- One day of training costs £150 (\$A235)
- One day of lost driver wages (or extra wage paid by firm to cover training time): £350 (\$A553)
- Net cost of additional testing for a CPC: £94.50 (\$A149.31)
- Cost of CPC documentation: £25 (\$A39.50)
- Two days of training required for an Initial Qualification (IQ) for new drivers
- A Periodic Qualification (PQ) requires 5 days (35 hours) of training every five years or one day annually for all drivers
- Exchange rate of \$A1.58 to £1 (based on 120-day average in 2010/2011)

The number of professional truck drivers in Australia was estimated to be approximately 180,000 in 2007/8 (DEEWR 2007/8). The number was estimated to be 160,000 in 2004 (ACIL 2004). This is a total road freight number that includes both drivers employed by other firms and self-employed owner-operators and lumps together 'Hire and Reward' and 'Ancillary' fleets. These distinctions would not affect the fact that the CPC affects all professional drivers, however employed. (Note: these numbers are not necessarily comparable across time due to shifting data definitions).

A PQ would apply to all 180,000 drivers in that they would have to get 5 total days of training during a 5-year period (i.e. 1 day a year on average). An IQ would apply only to new drivers entering the industry. A rough annual number for new drivers can be derived by subtracting the estimated driver numbers in 2004 (160,000) from the number in 2007/8 (180,000) (= 20,000) and dividing that number by 4 (for a roughly 4 year period) to obtain an annual figure of 5,000 new drivers per year.

A PQ would require an average of one day of training per year. Assuming one day of training costs \$A235, this would yield an average annual total cost per annum of \$42.3 million in direct course costs ( $180,000 \times 4235$ ). Additional costs would be due to one day of lost driver wages (or extra wage paid by firm to cover training time), a total of  $180,000 \times 4553$  (= \$99.54 million).

Total industry costs of the PQ would therefore be \$141.84 million annually (i.e. \$42.3 million + \$99.54 million). (Note: no additional testing is assumed).

For the IQ, and as noted above, two days of training are assumed to be required for new drivers at a total course cost of \$A470 (\$A235 x 2). If there are 5,000 new drivers per year,

course costs would therefore equal \$1.175 million annually ( $$A470 \times 5,000$ ). Lost wage costs would equal \$A1,106 per driver ( $$A553 \times 2$ ) and equal a total annual cost of \$A5.53 million ( $$A1,106 \times 5,000$ ). There is also an assumed net cost of additional testing for a CPC of \$A149.31 (a total annual bill of \$A746,550 per year for 5,000 drivers) and an assumed cost of CPC documentation of \$A39.50 (a total annual bill of \$A197,500 for 5,000 drivers).

Total industry costs of the IQ therefore amount to \$A7.66 million annually (rounding of \$A7.64905).

Annual PQ and IQ direct costs would therefore be \$149.49 million (rounding of \$A149.48905).

### 3.2. Potential Australian trucking firm profit and loss implications

Financial data for the freight trucking industry in Australia is incomplete. However, some indicative (if dated) data are available to get at least an order of magnitude of impact of overall firm profitability.

A 2003 BTRE working paper estimated industry operating costs at approximately \$A17.56 billion for the combined Road Freight (ANZSIC 611) and Road Freight Forwarding (ANZSIC 6642) sectors (ANZSIC 611 being the far larger sector). Roughly \$4.17 billion of this amount went to labour costs (BTRE 2003). Adjusting for inflation these figures would amount to \$23.6 billion and \$5.61 billion in 2010 respectively (RBA 2011).

Thus the direct costs estimated above could notionally add approximately \$0.145 billion annually to the costs of trucking firms, adding around 3.5% to the industry wage bill. This is a modest but substantive figure especially given tight profitability margins. BTRE estimated the average gross profit margin in 2000 to be 6.8%, with a range of profitability across firms of different sizes measured in terms of turnover, but with no percentile earning more than 9.3% and most making below that amount. (Interestingly it was modest size firms of \$100,000 to \$500,000 making the highest profit in that year) (BTRE 2003, p. 60). More up to date data indicate tightening average margins converging on 3.0% (Korda Mentha 2005).

The imposition of a CPC would therefore potentially push some operators, most likely small ones, into unprofitability since it would be difficult to pass on CPC costs to shippers. A trend towards industry consolidation, already underway, would likely continue and possibly accelerate, though the industry at present remains relatively fragmented (in 1999/2000, the top 4 firms had 15% of market share, measured in terms of sales, while the top 8 had 21%, though there have been a number of mergers since then) (BTRE 2003, p.45).

#### 3.3 Potential Australian driving labour market equilibrium

A concern expressed in the EU is that the CPC would tighten the supply of drivers, though there could be countervailing effects if the requirements led to the profession becoming more attractive and if better trained drivers might thus be able to be deployed to operating larger vehicles.

The data available to evaluate this effect is as yet too thin to definitively determine what the ultimate impacts might be. In the EU, the policy is not fully implemented so experience there is not yet a good guide. One Australian projection made in 2003 estimated that by 2011 70% of Australian truck drivers would be over the age of 45 and only 10% would be under the age of 35, indicating that a recruitment of drivers was a major concern already. But it is not possible to say, given available data, whether a CPC would improve this projection or make it worse.

### 3.4 Potential Australian freight trucking fuel efficiencies

Using a 2003 estimate of 9.624 million litres of fuel used by trucks (except those not carrying freight) in Australia, multiplied by a 2011 price of 150 cents per litre of diesel and assuming a CPC would reduce fuel consumption by 5% (following the assumptions used by the UK and Ireland) indicates savings to industry totalling \$0.6948 billion (AIP 2011; DSEWPC 2006).

If the CPC actually resulted in a savings of this magnitude, these savings alone would outweigh the direct costs estimated above by a considerable margin. However, as in the European case, this estimate is highly variable according to savings assumed.

### 3.5 Potential safety impacts of a CPC in Australia

The cost of fatalities overall on Australian roads has been estimated by Hensher et. al. (2009) at \$10 billion annually, assuming a value of human life of \$5 million to \$7 million. This figure does not include the cost of 30,000 serious injuries yearly. This is a total amount for all road fatalities and accidents, not just those due to freight trucking.

As with fuel savings, the estimate of total benefits is highly variable according the assumed impact of a CPC. As an example, if a CPC-style regulation resulted in a 10% reduction in fatalities overall then social costs would be reduced by \$1 billion annually, using the Hensher estimate. But it could be much more or much less.

### 4. Issues surrounding a potential CPC in Australia

What might be the net benefit of a CPC (in this case assuming an Option 2 style policy) be if imposed in Australia? As is the case of the EU, much depends upon the extent of the resulting benefits. These are hard to know without further data, analysis and, perhaps most importantly, further experience based on the EU roll-out currently in progress. A discussion of some of the most salient issues follows.

### 4.1 Designing an Australian CPC

What would an Australian CPC look like? This may seem like a basic question, but the EU CPC Policy Directive is very broad and multifaceted. Its main elements – Initial Qualification for new drivers and Periodic Qualifications for all existing drivers every five years – is clear enough, but the Directive provides two very different options for individual nations to follow in defining and carrying out a CPC (actually almost three since 'Option 1', which requires training and testing rather than just testing under Option 2, has an 'Accelerated training option' that is considerably less onerous than the main requirement). Also individual nations are given wide leeway and have taken that leeway in implementing the Directive nationally with quite different results.

Thus implementing a CPC in Australia would not be a simple matter of transferring over the current EU Directive. Substantial decisions about training, testing, and administration would have to made in crafting national legislation, putting it in place and then managing it.

### 4.2 Cost-effective policy design

Obviously the final design of a CPC would affect how much such a policy would cost industry, government and the larger society. Option 2, as defined in the Directive, is obviously the cheapest but official estimates of direct costs in the countries which have adopted that option (primarily the UK and Ireland) are nonetheless substantial. The UK, for example, estimated a total annual cost of 130 million English Pounds for direct training and testing costs (and foregone wages for truckers in training in the freight trucking sector). Analysis done for this study estimates similar costs for Australian freight trucking, using an Option 2 style, might amount around \$145 million annually. Option 1 style policies would obviously be considerably more expensive. Of course Australia might opt for a hybrid or entirely different schema than that adopted in the EU.

There is also the question of who would fund the costs of a CPC? In the UK and Ireland, and in many other countries in the EU government has imposed a mandate which industry must fulfil. A few countries have funded some or all of the costs publicly, though these are exceptions. This would be another policy issue for Australia to sort out.

#### 4.3 Analysing benefits and costs

In the EU there do not appear to be any advance benefit-cost analyses of the CPC done before the Directive itself was applied. A number of 'common-sense' benefits were asserted, mainly safer and more fuel-efficient driving, but estimates were left to national implementing governments to carry out if they chose to. The UK and Ireland made assumptions about reductions in fuel consumption (both assumed 5% reductions due to the CPC) and safety (the UK assumed a 25% reduction in accidents, Ireland 50%) but these are back-of-the-envelope calculations with little further evidence basis. Environmental benefits were not estimated directly in either case.

Estimation of benefits of a CPC in Australia is a critical issue in determining whether a CPC would be a net gain or loss to the industry and/or a net gain or loss to society as a whole. Analysis done for this study showed a \$694.8 billion benefit for the industry if, in fact, a CPC resulted in a 5% reduction in annual fuel use, a figure that would outweigh the estimated direct costs. Accident and fatality reduction benefits could also be substantial. There is not yet a firm basis for making claims on these issues in the case of the EU CPC and there would need to be a firm basis for making such claims before a CPC were imposed in Australia (though if such a policy were considered after the policy were in place in the EU for a time, there could be actual direct evidence regarding benefits and costs based on EU experience with the policy fully implemented).

### 4.4 Industry flow-on effects

What might the industry flow-on effects of a CPC be in Australia? This is another critical question, for which there is, at present, little analysis or experience in the EU or in Australia. There is some anecdotal evidence, through the trade press and government consultations with industry, that the policy could lead to more concentration of trucking firms, with uncertain impacts on supply and wages of truckers, but little modelling or data collection to make firm predictions. But more systematic data are at present not available.

For an Option 2 style CPC the direct impacts could be relatively small but potentially very big at the margins. Research for this study indicated that the direct costs could amount to roughly 3.5% of average wage bills. With profit margins in the sector averaging around 3% this could make or break some firms. But this is speculative without further analysis and is based on relatively old data. In any case the marginal impacts of direct benefits and costs might possibly be very significant and should be analysed and understood more carefully.

#### 4.5 Managing training requirements and costs

There is quite a bit of variability regarding actual administration of the CPC within the EU. Even the approach of government to issuing certificates and monitoring enforcement is in process. A big issue, for example, is how much a CPC requirement could leverage off existing truck driving licensing arrangements. No clear answers to this question are available yet since the policy in the EU is so new and governments are only beginning to put them into effect.

One issue that has been identified thus far is training sector capacity. The problem is not so much that there is not adequate training capacity in most countries (though that might end up being the case in some instances). The concern is when drivers might choose to receive training and testing. This concern revolves mainly around the EU Periodic Qualification that requires the entire industry to be tested every five years. If most drivers chose to put off such training until absolutely necessary some in the UK at least have raised fears that this spike in training demand might not be so easily handled. This is an important issue for program design in any Australian CPC.

### 5. Conclusions

Overall there are many clear costs to a CPC but the benefits, while conceptually clear, are not clearly estimated, modelled or defined yet. The exact design of such a policy in Australia is not obvious since there is a wide variation of requirement and actual practice currently in the EU. Implementation and administration of an Australian CPC thus requires further thought.

It cannot be said whether an Australian CPC would be a net gain or loss based on the current evidence. One precautionary course of action would be to wait until the EU has had at least one round of Periodic Qualification and several of Initial Qualification (by approximately 2014) to better see what the issues actually occur there before imposing one here. In the meantime further modelling, data collection, analysis and advance consultation with industry would be prudent. A CPC is not a minor change and its benefits, costs and flow-on effects should be better understood before proceeding with it.

Note: This research reports on an investigation commissioned by the Transport and Logistics Industry Skills Council (TLISC). Any opinions, findings, and conclusions or recommendations expressed in this material are solely those of the author and do not necessarily reflect the views of TLISC.

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