

LIFE-CYCLE CONTRACT

opens up new possibilities



THE LIFE-CYCLE CONTRACT is an application of the Public Private Partnership (PPP) model, based on the partnership between the public and private sectors and used worldwide. For large road projects in particular, the life-cycle contract offers a customer-oriented, cost-efficient alternative that reduces the customer's risks considerably. The life-cycle contract motivates the implementor, who, at the same time, assumes the responsibility for an efficient, high-quality, long-term comprehensive service.



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comprehensive service with accountability

In road projects implemented according to the life-cycle contract, Finnra as the customer purchases road-related services, not just the contractors' work. The service package includes, in addition to design and construction, also the routine and periodical maintenance of the road throughout the long agreement period. The agreement may, at its most extensive, also comprise the financing of the project as well as traffic services according to separate agreements.

In the life-cycle contract the customer and the service provider sign a service agreement with a duration of as much as thirty years. The customer sets the requirements for the road project in the service agreement, particularly those related to the performance specifications, but also technical and structural standards.

The service provider is responsible for maintaining the road available, in accordance with the agreed service level, from the completion date to the expiration of the agreement period. At the end of the agreement period, the customer obtains possession of the road free of charge. This sets the contract apart from financial leasing, where the customer would only lease the road. The life-cycle contract discloses the actual life-cycle costs for the entire

agreement period already at the time of signing the service agreement.

Projects completed in record time

As soon as the agreed service has become available, the customer starts paying service fees to the service provider. If the service provider fails to achieve the standards set by the customer, the customer is entitled to reduce the fees paid. Correspondingly, surpassing the service level may lead to increased service fees, which encourages the service provider to strive for efficiency and high quality. Other factors affecting the amount of service fees include, for example, the smooth flow and safety of traffic and environmental impacts. The life-cycle contract accelerates the completion

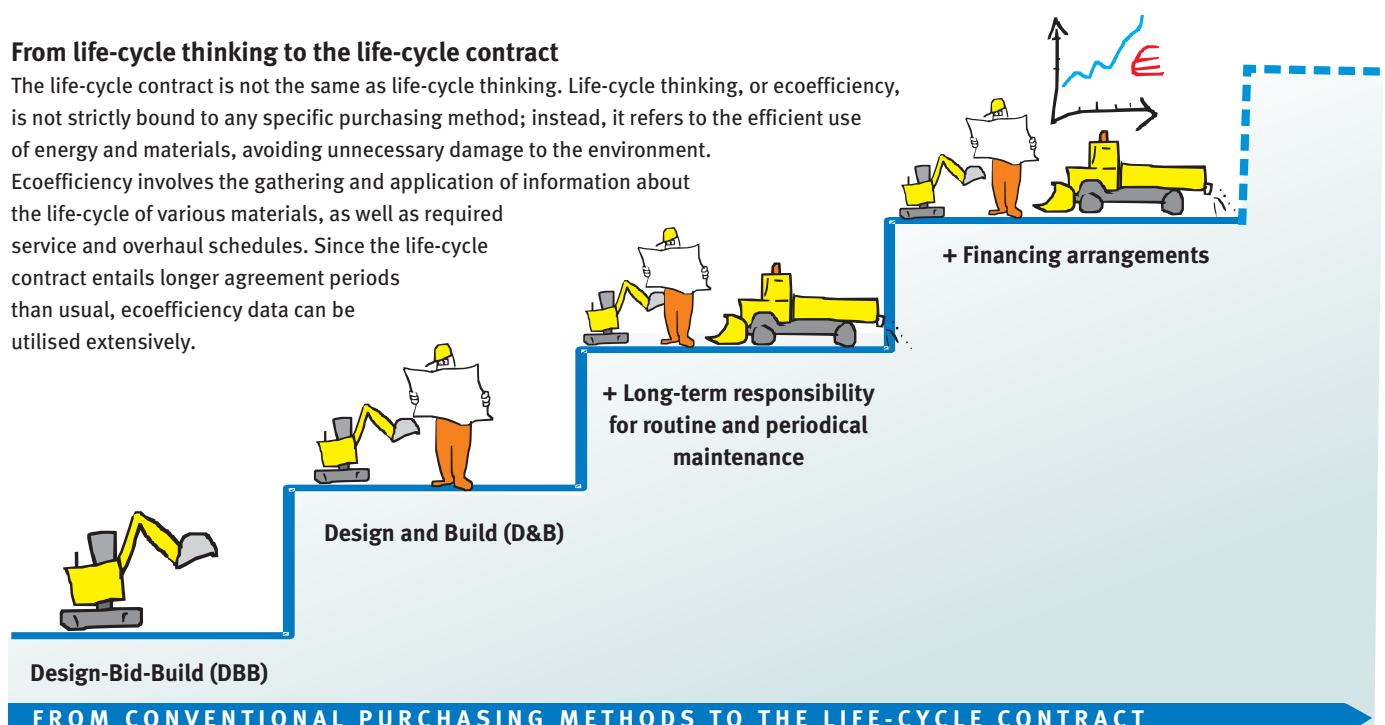
of profitable projects. Private financing usually allows an earlier project start than budget financing; also, it is not dependent of any annual frameworks, typical for budget financing. The fact that the service providers are paid their fees only after the introduction of the road generally shortens the construction period considerably.

Innovations improving productivity

The life-cycle contract improves the productivity of road maintenance through enabling innovations by the service provider. When a road is defined from the perspective of a certain service level, the implementor has more latitude in developing new technical solutions to improve productivity.

From life-cycle thinking to the life-cycle contract

The life-cycle contract is not the same as life-cycle thinking. Life-cycle thinking, or ecoefficiency, is not strictly bound to any specific purchasing method; instead, it refers to the efficient use of energy and materials, avoiding unnecessary damage to the environment. Ecoefficiency involves the gathering and application of information about the life-cycle of various materials, as well as required service and overhaul schedules. Since the life-cycle contract entails longer agreement periods than usual, ecoefficiency data can be utilised extensively.





Cost savings through risk management

In the conventional contract model the customer is responsible for the majority of risks. In the life-cycle contract, however, the service provider is responsible for the maintenance of the road it has built. It is, therefore, advantageous for the service provider to construct a high-quality road, requiring as few repairs as possible. This produces the highest possible yield for the assets spent on the road during its life cycle.

The customer is required to assume possession of the road at the end of the agreement period only if it meets the quality requirements set. Therefore, it is the service provider, not the customer, who bears the risk for a possible unacceptable condition of the road.

Is private financing more expensive than public funding?

- Slightly higher initial investments are compensated by sizeable savings in the total price.

When a private service provider assumes the financial responsibility, interest costs are somewhat higher than in the case where the state or the municipality acts as financier. On the other hand, more efficient and quicker construction process and improved risk management characteristic to the life-cycle contract bring cost savings that exceed the effect of the gap between the corporate and state interest rate margins on the expenses.

Is the life-cycle contract restrictive for future decision-makers?

- The life-cycle contract entails that the service is paid by the users.

Long-term service agreements are no more restrictive for the decision-makers than any financial arrangements made for financing road projects under the government budget. If the state takes out a loan, as a part of general government borrowing, to finance a road project, it is obliged to pay it back in any case. The convenience of the traditional contracts, chopped into smaller entities, is only apparent, since they do not indicate the total costs of the road during its entire life cycle. In the life-cycle contract, services are paid for only when used, and the overall costs can be calculated from the very beginning.

Is privatising a risk to the quality of service?

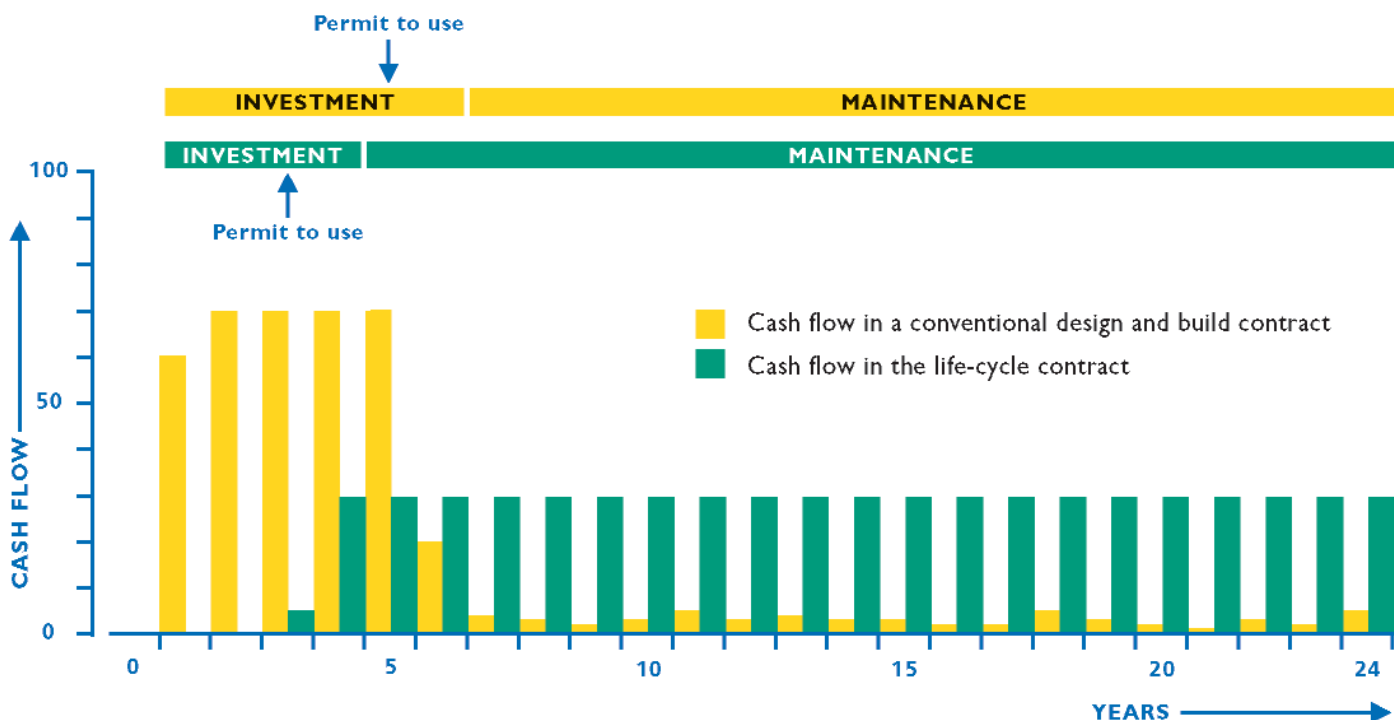
- The quality standards are determined by the customer.

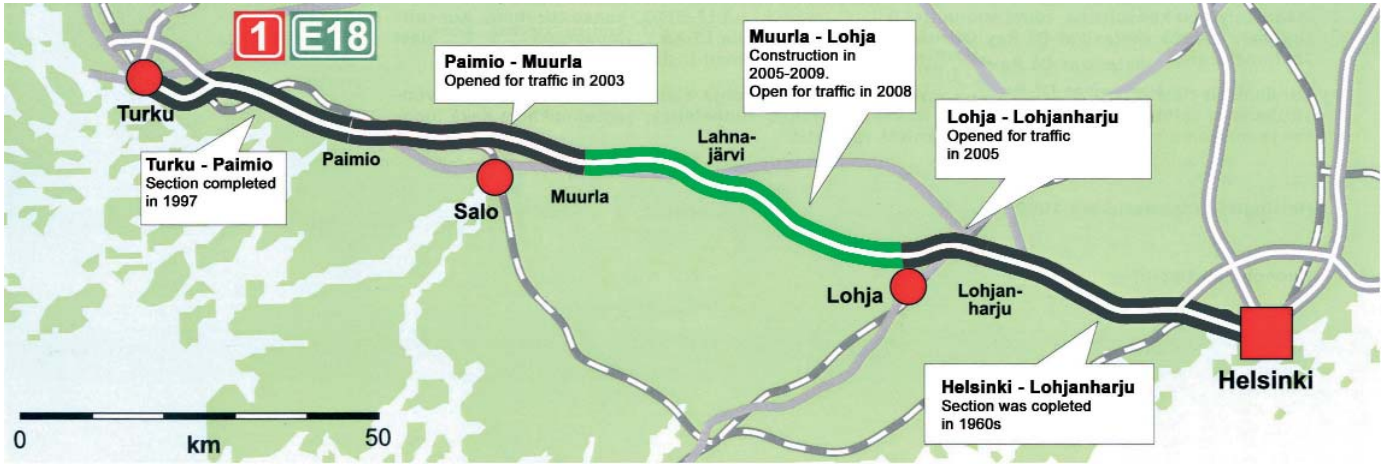
The life-cycle contract is not a case of privatising. The customer determines the quality of service and pays to the service provider according to whether the agreed level has been achieved. After the agreement period the road is assigned to the customer.

Is there a functioning market for life-cycle contract projects?

- A programme of several life-cycle contract projects is needed.

The life-cycle contract is best suitable for road projects where the proportion of initial investment in relation to maintenance is high. An example of such project is the construction of a new road. To create genuine competition and functioning markets, a programme comprising several life-cycle contract projects is necessary. This would produce reliable, empirical information about the advantages, development needs and possible applications of the life-cycle contract. Also, the programme heightens the interest of foreign corporations in Finland's most important road projects.





E18 Muurla–Lohja implemented with life-cycle contract

The completion of E18 Muurla–Lohja motorway is scheduled for autumn 2009. Finnra will start paying service fees to Tieyhtiö Ykköstie Oy, the service provider selected on the basis of a tender competition, as soon as the motorway has been opened for traffic at the end of 2008. The road will be available two years earlier than would probably have been possible using the

conventional implementation methods. The amount of the fee is based on the availability of the road and the service level, depending on, among other things, the condition of the road surface, repair work, speed limits, snow clearing, and prevention of slippery conditions. The agreement period is valid for 24 years, that is, until autumn 2029.

The project's cost efficiency and allocation of risks are improved by the life-cycle model. This brings savings to cover the capital costs that are higher than usual. The method has been applied successfully in Finland's first road project implemented with the life-cycle contract, the Järvenpää–Lahti motorway.

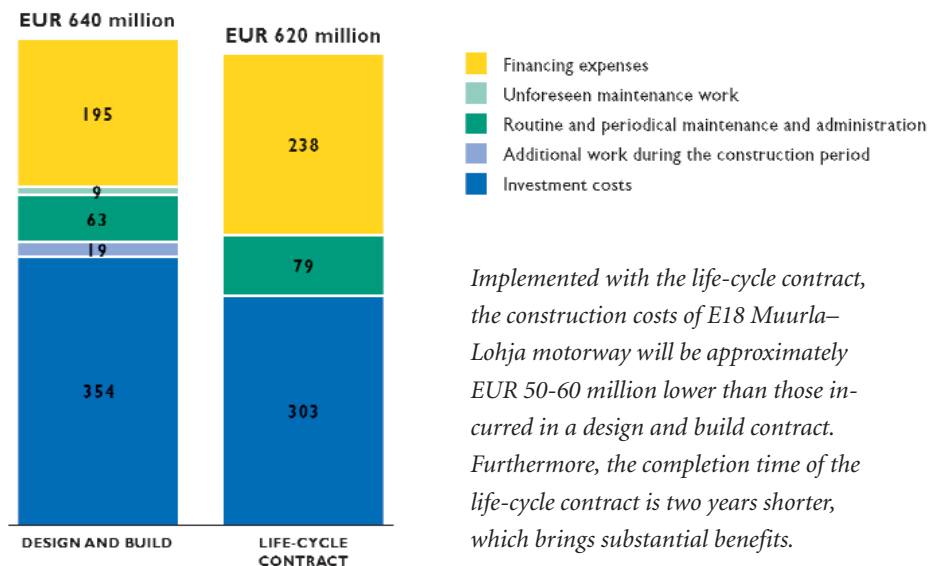
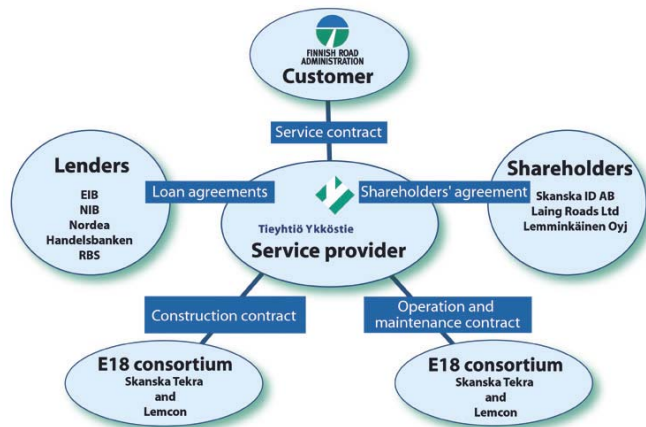
Three life-cycle contract projects in Norway

Three road projects in Norway have been implemented following the life-cycle contract. The first of them, a section of E39 Klett–Bårds- haug road, was opened for traffic in autumn 2005. The service agreement between Norway's national road administration and the project company Orkdalsvegen AS, valid until 2028, comprises the design, construction and maintenance of the road. A part of the required funds have been provided by private investment companies, one part consists of toll fees paid by the users.

Another motorway section to be implemented with the life-cycle contract is E39 Lyngdal–Flekkefjord, which is to be completed in autumn 2006 by Allfarvegen AS. The third life-cycle contract project is E18 Grimstad–Kris- tiansand. The implementor selected through tender competition is the project company Agder OPS Vegselskap AS. The shareholders of the company include both national actors and an international construction group.

Several projects in other parts of Europe

Applications correspondent to the life-cycle contract are widely used in infrastructure projects throughout Europe. Numerous road projects have been complemented using these purchasing models in, for example, the Netherlands, France, Ireland, Italy, Spain, Portugal and United Kingdom.



Implemented with the life-cycle contract, the construction costs of E18 Muurla–Lohja motorway will be approximately EUR 50-60 million lower than those incurred in a design and build contract. Furthermore, the completion time of the life-cycle contract is two years shorter, which brings substantial benefits.