

## AFCONS

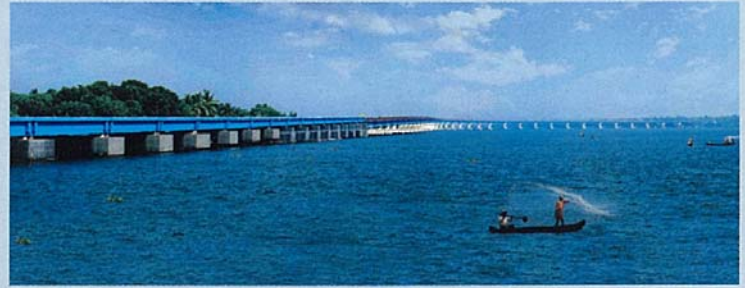
# Connecting a port to the world

One of Afcons Infrastructure's best known achievements in recent times is the prestigious rail bridge connecting the island Vallarpadam with Idappalli in north Kochi.

The bridge was constructed within the shortest possible time using sophisticated equipment with innovative technologies such as concrete placing by pumping concrete for a length of 2.1 km, which incidentally is a national record. The bridge girders were erected with the help of sophisticated girder launcher with a record speed of about 500 m in a month. The bridge has 134 spans of pre-cast girders resting on piers above pile foundations. The longest rail bridge in India, spanning 4.62 km, was awarded the best prestressing structure for the year 2010 by Indian Concrete Institute.

ICTT is the country's first terminal to operate in the Special Economic Zone (SEZ) in Vallarpadam, Kochi. Road connectivity to ICTT was provided by National Highway Authority of India from Kalamassery to Vallarpadam—about 17.5 km in length—and rail connectivity was provided by Rail Vikas Nigam through Afcons Infrastructure for 8.6 km from Vallarpadam to Idappalli.

K Subrahmanian, Managing Director, Afcons Infrastructure, said, "Afcons is proud to be associated with ICTT and other major projects creating many landmarks in a city known for its scenic



The prestigious rail bridge is the longest in India (4.62 km).

beauty, traditional architecture and cultural diversity. Afcons has been engaged in this development process since 1994".

Engaged in construction of road connectivity in Kochi since 2001, Afcons Infrastructure is a leading construction company to have successfully completed reclamation and construction of two LNG storage tanks of diameter 85 meter and 54 meter height, of storage capacity of 155,000 m<sup>3</sup> each. The company is also constructing other infrastructure berthing facilities which are nearing completion. This is a government aided project where Petronet LNG is building an LNG Terminal, a major milestone in the industrial growth of Kochi.

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## ROYAL HASKONING

# Global experience, local application

Royal Haskoning has been active in India since 1950s, and has played a major role in some of the largest ports and industrial projects in the country including Ennore Port and Project Seabird, as well as shipyard developments like DGNP Mumbai, Mazagon Dock and Nana Layia. A multi-disciplinary engineering and environmental consultancy company, Royal Haskoning has its presence in more than 17 countries, with 57 offices and 3,900 employees. Haskoning India has a staff of some 100 based in Delhi, Mumbai and project offices around the country. Founded in 1881, it is the oldest private consulting engineering practice firm in the Netherlands. The company was awarded with the honorary title 'Royal' in 1981 for its 100 years of outstanding achievements in the fields of maritime, infrastructure and transport, coastal and civil engineering, structural engineering, spatial planning, building and building services, environment, water and water management.

Engineering consultants like Royal Haskoning can bank on a wide international experience and can give advise on all aspects to ensure that the project develops in the right direction. The added value of engineering consultants is the largest in the early stages of

project development, when the challenges with planning the port facilities are many. They should be addressed with the best engineering judgment to come to an educated view on technical and financial feasibility. In the early stages assessments, surveys, investigations and simulations should be carried out, especially the alignment and costs of breakwaters and the dredge-fill ratio are important aspects that need to be investigated.

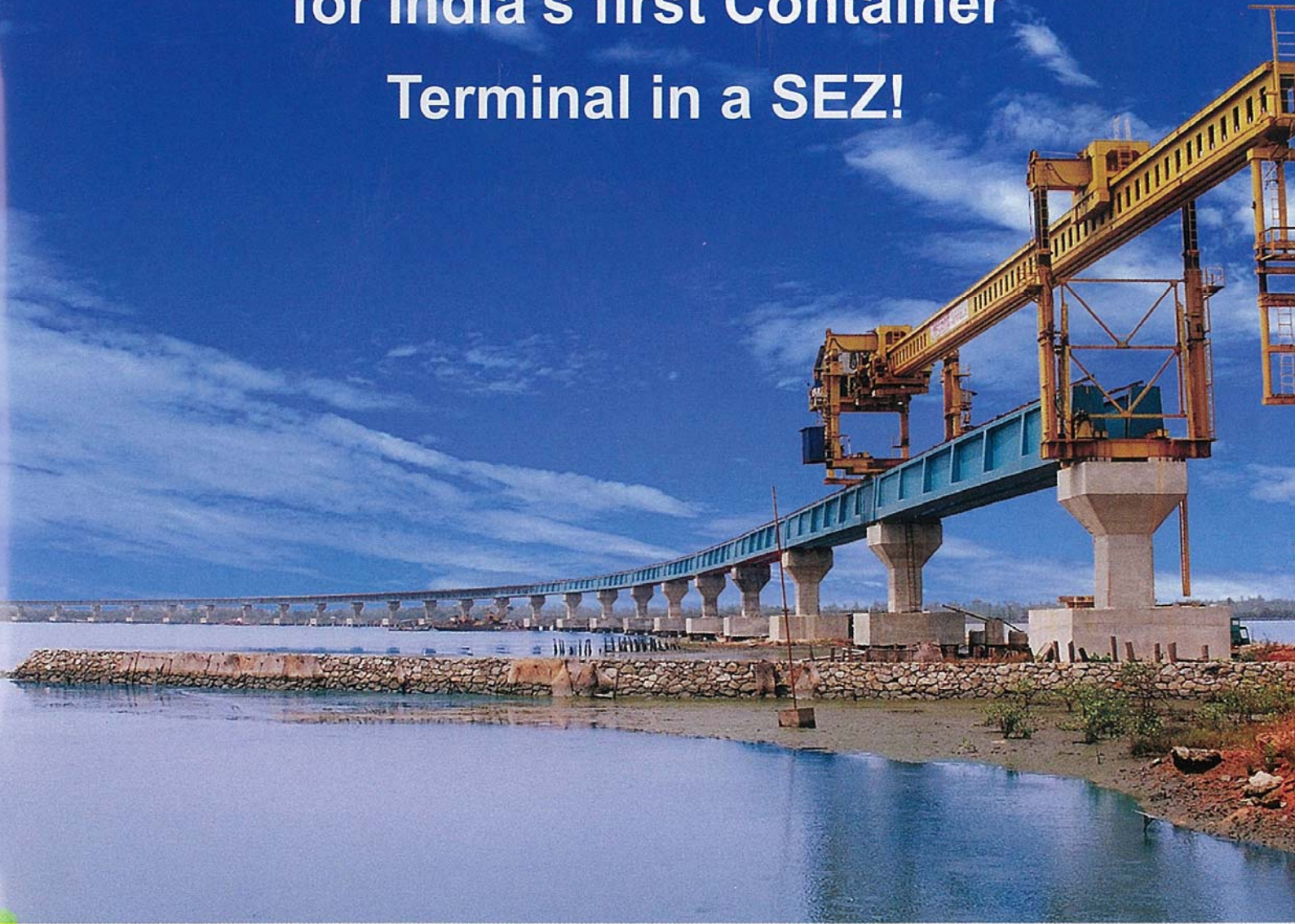
It is important to take into account the socio-economic costs and benefits of the development. The issues in port development are many—the interface between land and water can be of major environmental value. To ensure an efficient decision making process, it is important to be transparent and to keep an open dialogue between the stakeholders. Royal Haskoning has a good track record when it comes to risk and stakeholder management.

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Niek van der Sluijs, the author, heads the Maritime Delhi Business Unit and has had leading roles in the planning and simulation of terminal operations for projects worldwide.

**From backwaters  
to fast-forward growth  
for India's first Container  
Terminal in a SEZ!**



**AFCONS – Proud to have constructed the award-winning longest rail bridge connecting International Container Transshipment Terminal (ICTT) at Vallarpadam, Kochi in a record time of 27 months.**

**AFCONS Contribution Leads Kochi to Development:**

- Road connectivity with 3 major bridges for Vypeen Island via Vallarpadam & Bolgatty for Goshree Island Development Authority.
- Rail Connectivity of 4.62 Km the longest in India, on the 8.6 Km Rail Link from Idappalli to ICTT - Vallarpadam for Rail Vikas Nigam Limited.
- Land Development and Construction of two Nos. of LNG storage tanks.
- Berthing Facilities for Petronet LNG at Vypeen Island.



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**A Shapoorji Pallonji Group Company**

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