

# Magazine for intermodal exchange and development





# **DAMEN CRANE BARGE 6324**

#### NEW DESIGN – TRANSSHIPMENT BARGE – AVAILABLE FROM STOCK



Our newly designed 63 m Crane Barge basically serves 3 purposes: ship-to-ship, ship-to-barge and ship-to-quay dry bulk or container handling. Because we believe in this concept, we have already built a number of them, allowing for a very short delivery time.

#### Why?

- Fuel efficient Liebherr CBG 350 crane
- Shallow draught and high stability
- Day / night accommodation for 12 crew
- Turnover up to 1.000 ton per hour
- Grab capacity of 35 ton @ 36 m









WE ARE IMPERIAL

# **Impressum**



INTERMODAL & CONTAINERS

Claire Trevet

Thijs de Groot

Ton van Doorn

Claus Wilde

Marcel Wouterse

Irene van Dongen

Karel Vanroye

Johan Kijzerwaard

't Vijfeiken 41 • 5384 ER Heesch www.box-intermodal-containers.com ISSN 2215-0250 [Print] 2215-0269 [Pdf]

#### **Editorial director**

Jos W. Denis • Tel. +31 6222 31935 jos.denis@box-intermodal-containers.com

#### **Editorial team**

Clementine Daamen Hans-Peter Hofmann

Olaf Grüzmacher Jeroen Bozuwa

#### Columns

Thore Arendt Hans-Dieter Hartwich Manuel Herrmann

Peter Wolters Peter Owen

# **Events**Frans Kamp

Trano Ramp

#### **Photography**

Markus Liermann Martina Nolte Frank Bachmann Hero Lang Jan Oosterboer www.liermann-medien.de

www.martina-nolte.de

www.helixlearning.nl

www.zu-den-zuegen.dewww.lang-foto.de

ooer Jos Sparla

#### **Design & Website**

Rob de Winter Mash Derrick Eugene Eijdems www.dewintermultimedia.nl

• www.mashderrickdesign.co.uk

s • www.eijdems-internet.nl



INTERMODAL & CONTAINERS

't Vijfeiken 41 • 5384 ER Heesch is a registered trademark of Modalistics Holding BV

P.O. Box 41 • 5384 ZG Heesch

10. 20% 11

#### **Terms & conditions**

For all activities the terms and conditions are applicable as they are part of the media packs in 3 languages, always in their latest versions. In cases of doubt the Dutch wording is ruling.





Hans Kuenz GmbH | 6971 Hard - Austria

T +43 5574 6883 0 | sales@kuenz.com | www.kuenz.com



# Contents

- **Impressum**
- Contents
- **Editorial**
- **Containers** 
  - Ambrogio a brief history 14
    - 20 4FOLD folding a 40'
    - 22 TWORTY 20' and/or 40'
    - 24 Progeco flying repair service
    - 26 7XE welding - 95% less smoke
    - 30 Frankenbach - car in container
    - 32 LEVATON platforms
    - 34 **VUCAFRAME**
    - 36 Innofreight
    - A-WARD the tilters



#### **Container architecture**

- 48 Urban space London
- **50** Le Havre students housing
- 54 Christchurch earthquake
- 56 Le Havre beach
- **BOXPARK London Shoreditch** 58
- 60 Books on container architecture

## 62 Deep sea

- 64 MSC 14.000 TEU
- 66 CMA-CGM 16,000 TEU
- 68 MAERSK Triple-E 18,000 TEU
- 80 CSCL 19,000 TEU
- 82 MSC 19,000 TEU+
- 84 RWI-ISL Index November 2014

#### Short sea 86

- Antwerp MSC Home terminal 88
- 90 Kiel-canal
- 94 Eemshaven
- 96 Port of Moerdijk
- Langh Ship Fornio 102
- 104 Port of Dover - Roll-on / Roll-off
- 106 ReVolt DNV-GL Oslo

#### 112 Global warming

- Experts reached consensus 114
- More rain. Where? What to do? 116
- 118 What else in Cologne?

# 120 Road transport

- 122 Qua patet orbis
- Van den Bosch Erp 50 years 124
- 128 Jan Snel - new functions
- Frankenbach sideloader 130
- 132 Driverless wheels & drones



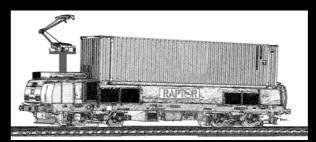


# **Barge transport**

- 138 **ACOS Bremen**
- Canals for 32 till 48 TEU barges 146
- Dubbelman close to the Loreley 150
- Giant encounter in Rhine valley 152
- 156 Famous Rhine curve
- Frankenbach ro/ro and boxes 160

## Rail transport

- 164 Ambrogio - terminal and network
- 170 IFB - spotted and network
- Fuori Muro shuttles in Italy 176
- 180 SBB am Gotthard
- CRCT Beijing to Europe CEER 182
- **BOXXPRESS** 190
- 192 ERS Railways Poland shuttle
- **EUROGATE** intermodal
- innofreight RockTainer ORE 200
- 202 RRF railfeeding
- railCare supermarket supply 204
- RAlpin: rail for truck & driver 206
- 214 Modalohr: focus on the truck
- CargoBeamer truck to rail 216
- NIKRASA truck to rail 218
- rail-AGV driverless single railcar



# Infrastructure

- 226 GBT Gotthard base tunnel
- LSVA modal shift SWISS MADE
- 230 MEV Suisse ETCS simulator
- 232 Seine-Nord-Europe
- 234 Zuid-Willemsvaart
- 240 DeltaPort Wesel
- NGICT Barge MEGA-hub

# Container handling

- 254 NGICT - Hot spot
- KÜNZ intermodal competence
- 270 VDL - intermodal spreaders
- 274 Port Feeder Barge
- **DAMEN Crane barge**



#### 280 Container terminals

- 282 Baltic Rail Gate Lübeck 286 Frankenbach Mainz 288 **DP World Germersheim**
- Bonn Trier Metz World 300 Oss = OSS = One Stop Shop
- 310 Emmerich: beyond borders
- Verona: fastest terminal







# 324 pages you don't want to miss! Save your own copy of this edition



info@box-intermodal-containers.com

Final edition 2014
& first international edition

# Our selection from 16 countries:

- Containers: new types and technics
- Container architecture: house & office
- Deep sea: developments and volumes
- Short sea: keep it short
- Global warming: expectations
- Road: unbeatable
- Barge: wide range of options
- Rail: great developments
- Infrastructure: a few important projects
- Handling: proven and new
- Terminals: the intermodal interfaces







# **Editorial**

I wish all readers a good start and a happy, healthy and successful 2015!

Since the start of BOX intermodal & containers in 2012, with the first Dutch edition, we received regular requests -from Wales to Beijing, from Gdansk to Marseille- to add an English edition as well.

Starting in 2015 we honour this in two ways. Besides the 5 Dutch and 5 German editions there will also be 5 English editions – the different language editions will have their own content focussing on the circulation areas, and some of the best and most important issues will also be published in all languages.

The second way to realize the request for an English edition is a combined final edition at the end of the year: a visual international edition - colourful with little text, but a giant edition representing companies all over Europe and outside (!) involved in the container industry and intermodal logistics; showing profiles and a lot of activities, developments, improvements and innovations. Everybody will identify easily his or her champions! Automation is developing in lots of segments in the container and intermodal business, in some sectors quickly, in others slowly. Sea port terminals have already reached a high level of robotized handling, where solutions for inland terminals are still not yet attractive enough to get the first terminals robotized. A new integrated warehouse with terminal is shown in this edition and has a lot of positive parameters to let it be a breakthrough. But after years of development and testing, robotized driving seems to be one of the next steps in mobility on highways and in transport logistics. But what about ships? What about trains? In this editions we present some ideas, prototypes and designs.

Infrastructure and better use of it. To realize all the high- and waterways expansions of the different groups of interest all over Europe is not only unpayable there are also a lot of other groups of interest representing exactly opposing opinions. The TEN-T network represents a European infrastructure network based on realistic connectivities and opportunities of the exisiting mainframe of infrastructure. Nevertheless the optimisation of the use of the existing network could have a higher priority on national



and European levels, as there are lots of empty gaps in the infrastructure of all states. Let's expand the network combined with higher attractivity of the use of available gaps.

The development of containers of course never stops, even when the potential use is very diverse from a few to several thousand on a worldwide scale. Better use of the available equipment is also steadily in progress. Of both developments you will find a few examples in this edition.

The reactions after our request -only a few weeks ago- were great and thanks to a lot of

support we could produce this giant edition! Thanks very much for that!

Next year we will do this again and will start earlier in order to get the print edition ready before Christmas. So, keep "good photographs" [300 dpi and size 42 cm width and 31 cm height] in your mind and send them to us in time in order to get them in next year's selection.

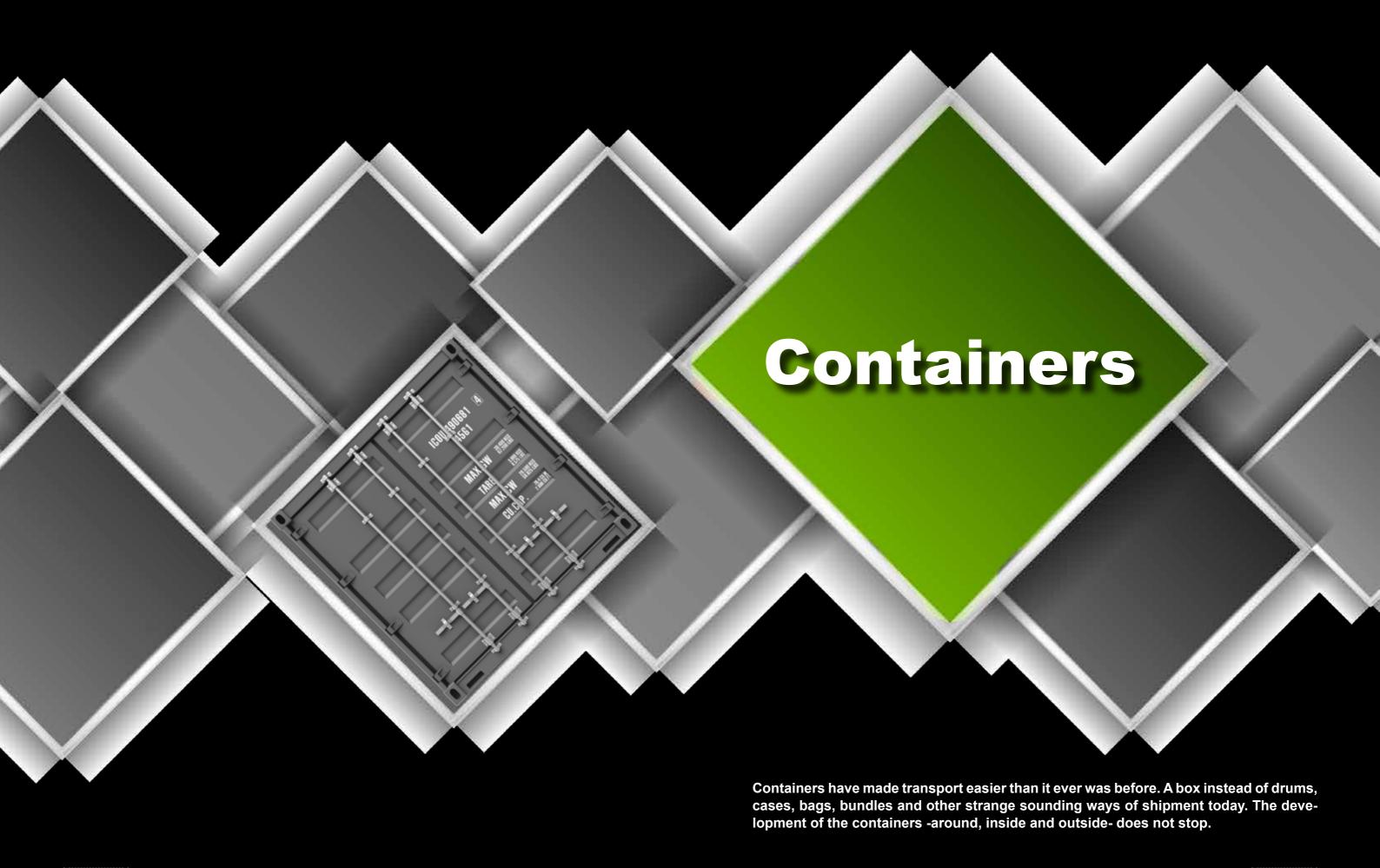
Good luck and enjoy!











2014 - 11+12 ------





# "Sistema Ambrogio"

In the early days of containerization not only Malcom McLean was designing smarter solutions for his daily volumes of road transport. Domenico Ambrogio, the father of Livio Ambrogio -CEO of Ambrogio intermodal only in Galarate, Italy- focussed on the combination of road and rail and developed his own system to combine both modes. The start of his business was the transport of eggs between Holland and Italy.

Wheels are necessary on the road, but not on the train, so his improvement focussed on removable wheels to keep them just where they are needed: on the road. He constructed a loading unit, a boogie with 2 or 3 wheels and a connecting frame (semi-chassis) between the boogie and the truck

There are still some boogies in operation on the terminal in Galarate for terminal operation only.











# **ECONOMIC LIGHT WEIGHT SOLUTIONS FOR CONTAINERS**





#### **Objectives**

- Reduction of lifecycle costs
- Production optimization
- Improvement of environmental performance

#### **Advantages**

- Weight reduction
  - Reduced fuel consumption and emissions
  - Increased payload and reduced logistic costs
  - Optimized material utilization
  - Improved ecological footprint
  - Reduced draft
- Steel floor offers improved eco-friendliness and is 100% recyclable
- Steel Floor allows for reduced floor inspection frequency
- Cost improvement and production optimization as reinforcements are integrated by locally increased blank thickness
- Current spare parts are compatible with TRB
- Technology can be applied to all container sizes

#### **Validation**

- CSC Approval of 20 ft container by DNV GL
- Flexible rolling technology is recognized as a high quality production process in the automotive industry for more than ten years



















# **TWORTY**

20' and 40' together makes the "tworty" for single  $(2 \times 20')$  and double use  $(1 \times 40')$ .

For equipment imbalanced trades (40' export and 20' import) and lowering the number of terminal handlings this design makes sense.



**—** 2014 - 11+12 <del>——</del>







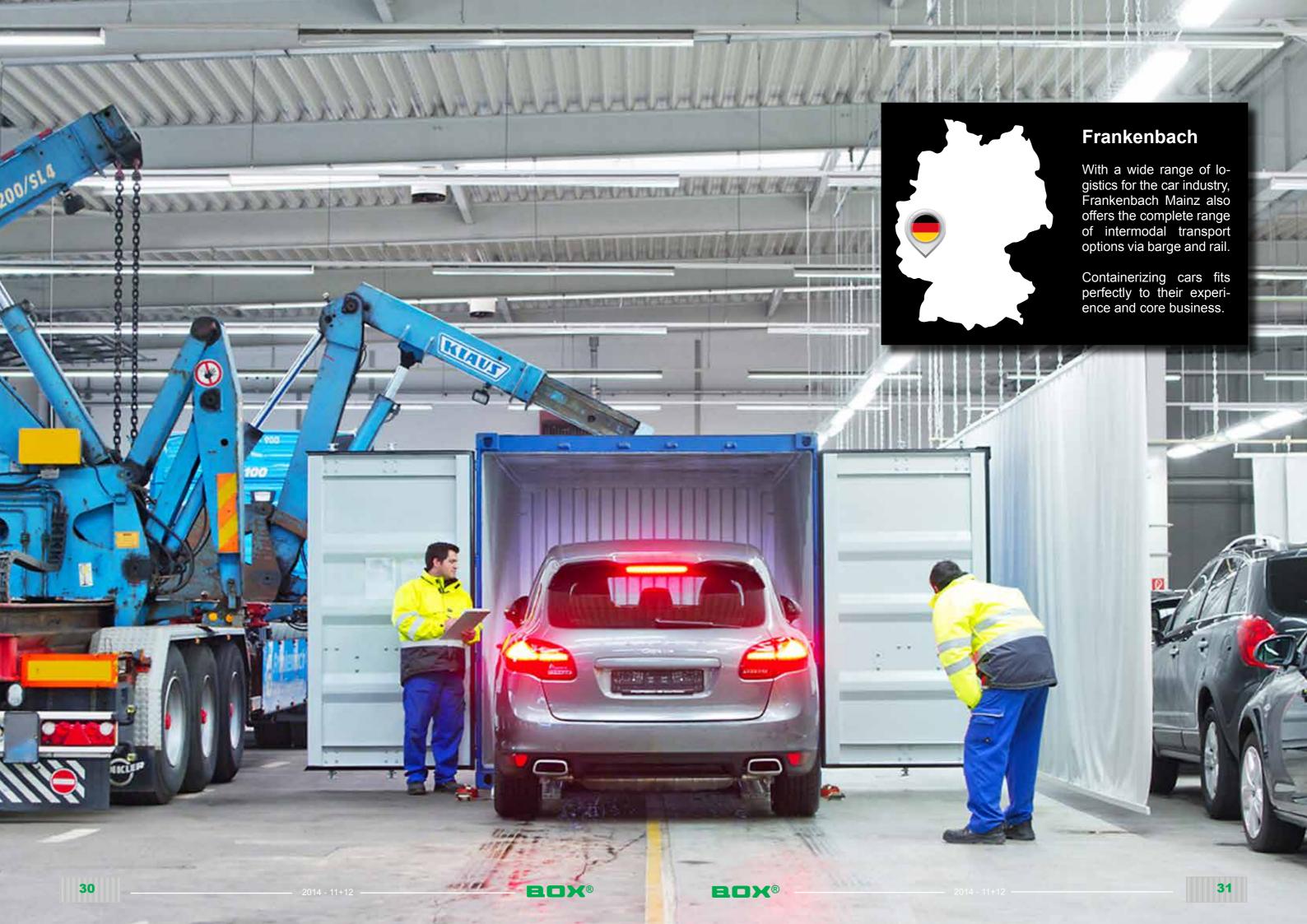


# We keep your cargo dry!

We reduce the risk of damage to your products from humidity and condensation.

Canadaco is the leading provider in the best solutions for moisture control for international shipping and storage.

Canadaco B.V. • Hondelink 110 • 7482 KS Haaksbergen • The Netherlands +31 (0)6 22 78 78 77 • cor@droogzakjes.nl • www.droogzakjes.nl



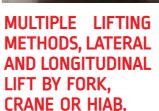


# **LEVATON PLATFORMS**



















"The introduction of the Levaton Platform is a major step forward in providing value added handling and protection to not only high end motor vehicles but a wide spectrum of cargoes that may be fragile or require a specific handling regime outside of the norm.

The Levaton has a worldwide potential and I see nothing but success for its future applications in many operating environments."





# BENEFITS OF USING LEVATON PLATFORMS IN OPERATION

- Welcome acceptance from customers trying to avoid handling damage.
- Unprecedented levels of protection for vehicles and goods in transit.
- Ease of loading and securing of loads outside the confines of the container.
- Advantages over RoRo operators including on-dock weather protection.
- Massive load carrying ability; 5500kg craned, 8000kg on forks.
- Repeat trade from customers looking for fragile cargo protection.
- All in all a very cost effective, trade generating piece of equipment.







Enquiries and orders should be directed to salesteam@levatonplatforms.com

M: +44 7781 137774



For more information, images and video visit our website www.levatonplatforms.com



# **VUCAFRAME**

Unit45.com offers different car container solutions and one of them is this frame, which is also completely applicable for all types of multimodal transport - barge, rail, road, shortsea.

















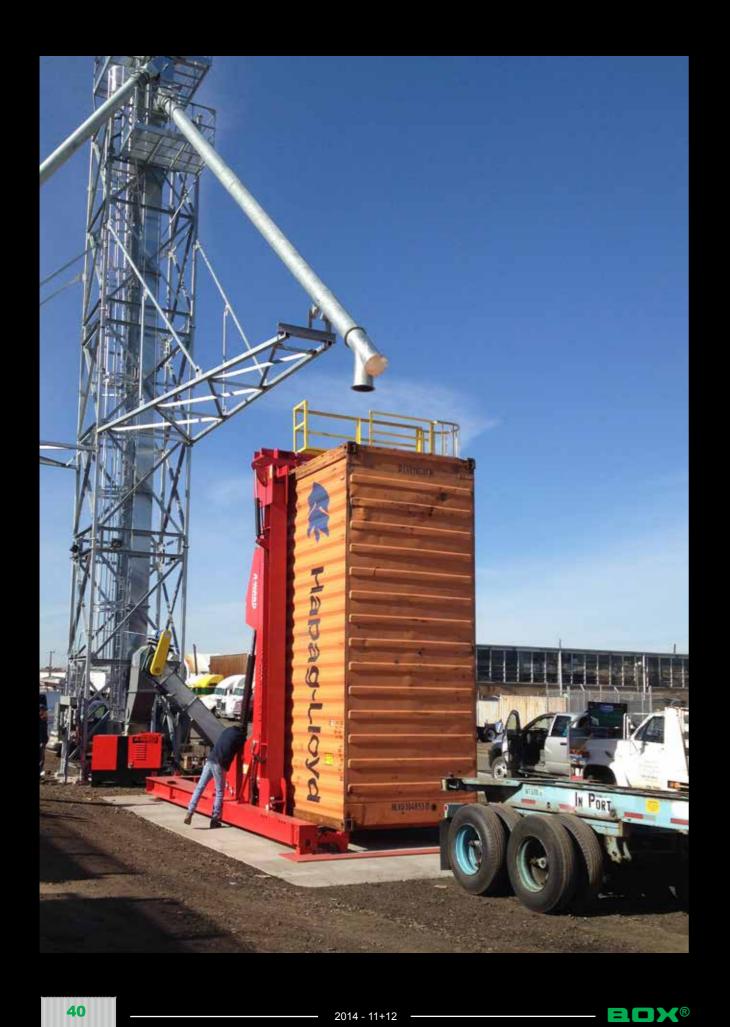


# innofreight

is revolutionizing cargo transport by rail by splitting consistently railcar and loading units and creating optimized railcars and loading units which better fit the specific gravity of the different goods like biomass, wood chips, sand, iron ore and other bulk goods.

www.innofreight.com





\_\_\_\_ 2014 - 11+12 <del>\_\_\_\_</del>







2014 - 11+12 —









# A-WARD

The inventors of the world's first tilter have The inventors of the world's first tilter have built up a wide range of tools for easy bulk handling into and out of standard containers, from sugar and grains to coal and metal scraps. With a range of different extras the tilter is equiped for a wide range of products on industrial plants as well as on container terminals. Bringing the cargo into the container on the container terminal (or out of it) results in higher payloads when possible and needed.

www.a-ward.com

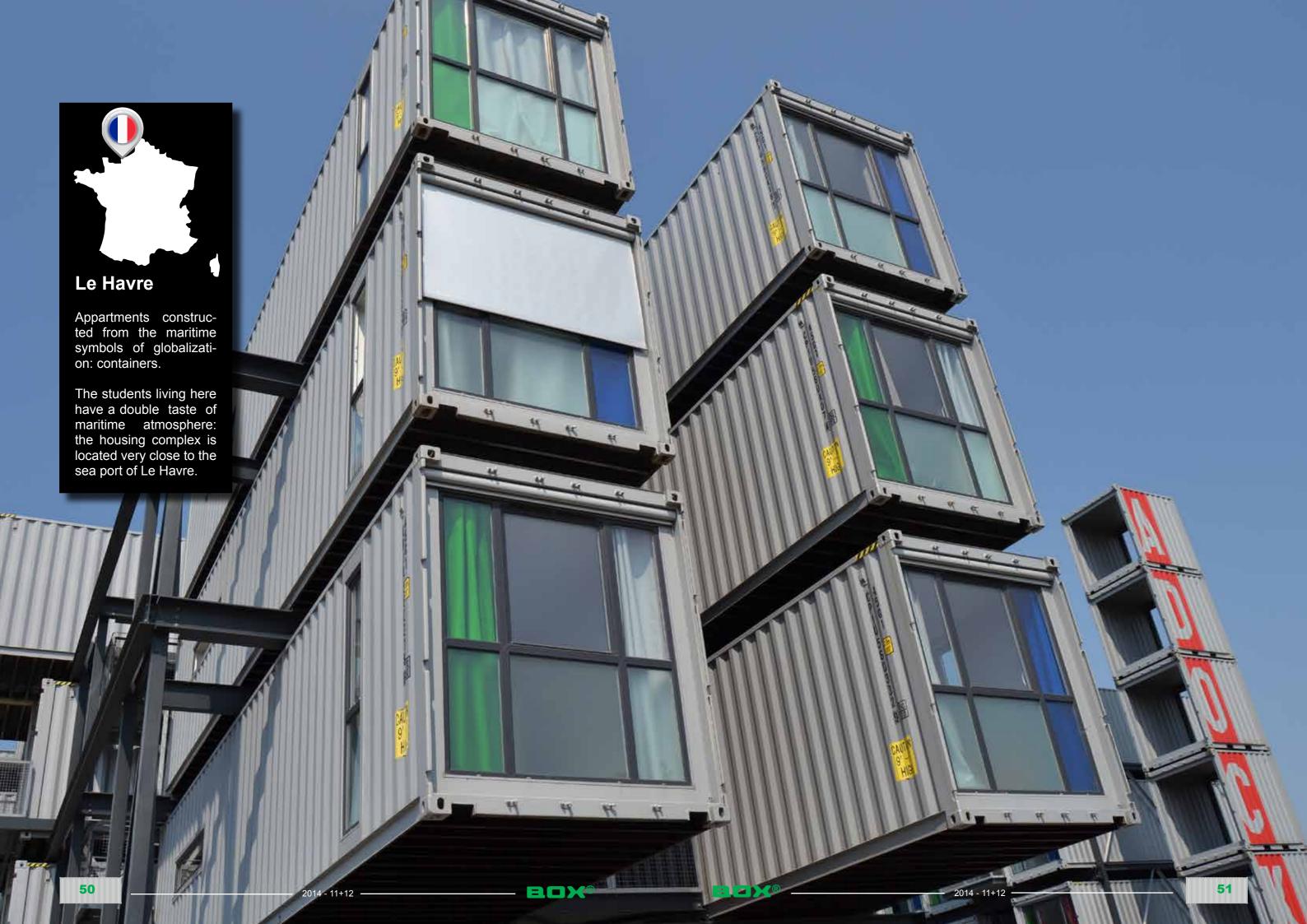
2014 - 11+12



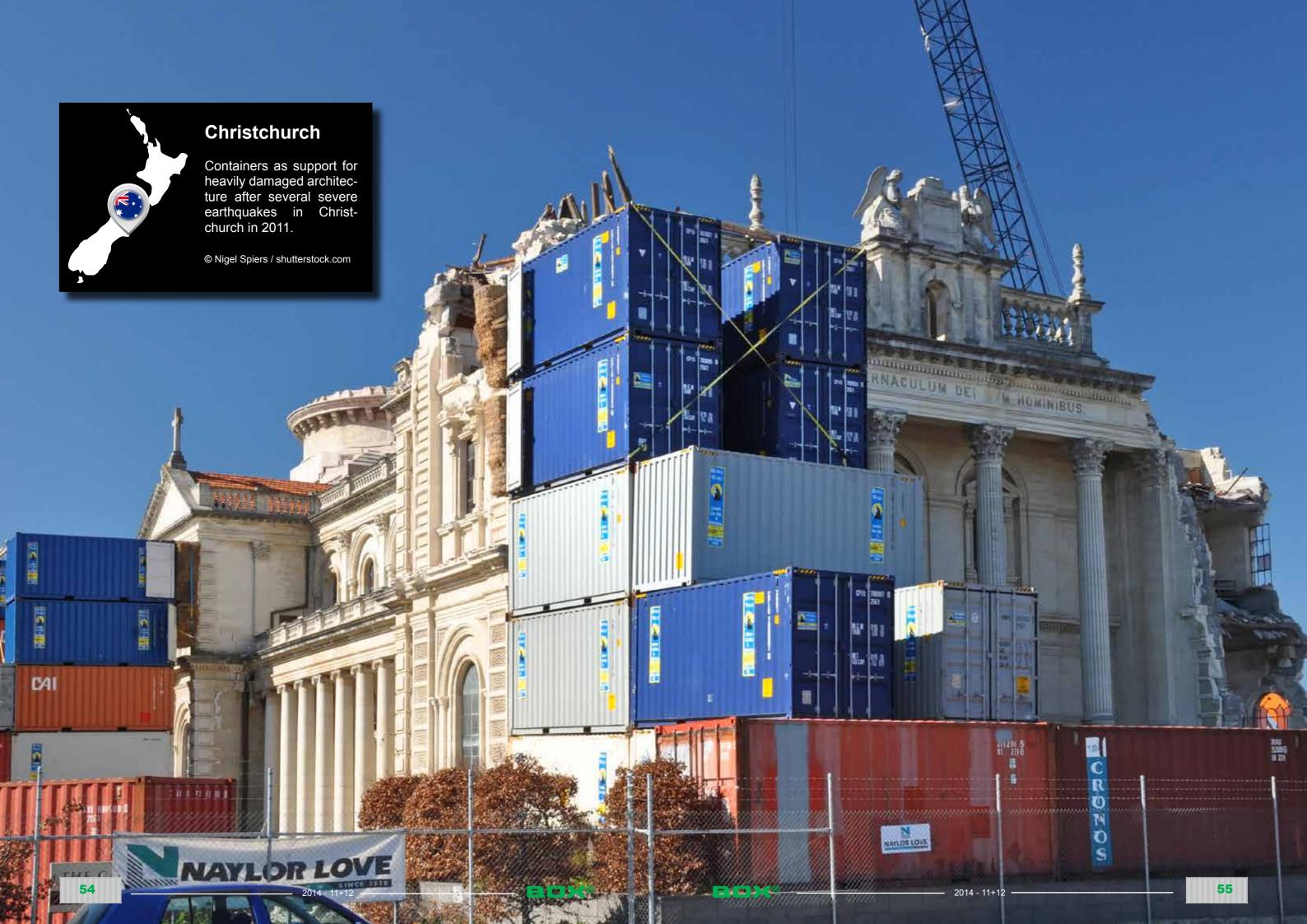






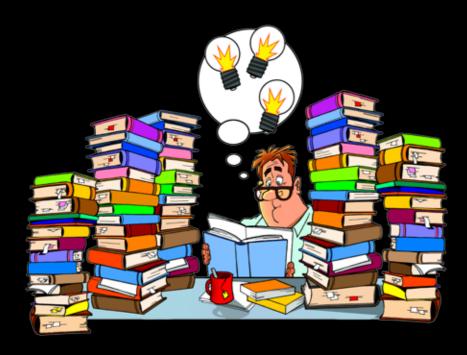










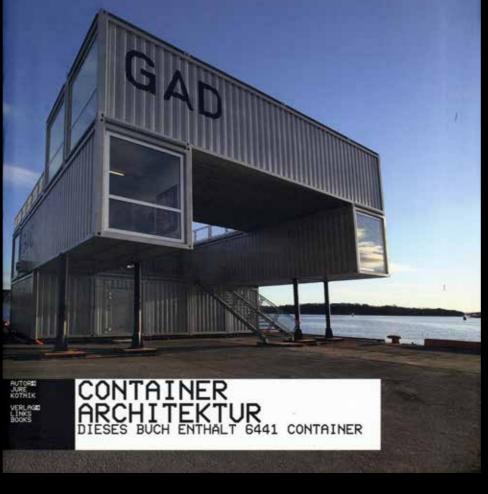




A PRACTICAL GUIDE TO CONTAINER ARCHITECTURE

SLAWIK, BERGMANN, BUCHMEIER, TINNEY [Eds.]







# **Container architecture**

is, like the container business of course a global issue. The two books to the left give a good and lovely overview of structures and buildings all over the world - from very simple housings and halls to a highly technical foldable espresso bar in Italy.

The book above was published for the exposition in 2011 in the NRW-Forum in Düsseldorf. At the exposition a lot of famous constructions (which you will find in the two books to the left photographed at their particular locations) were shown as rebuilt models.

Appartments for students are worldwide favourite applications, but the use of containers is very diverse: used and new containers, nice and surprising offices, sporting facilities, holiday houses, beautiful homes in the country and mountains, military facilties, repair shops, hangars, restaurants and a lot more.





















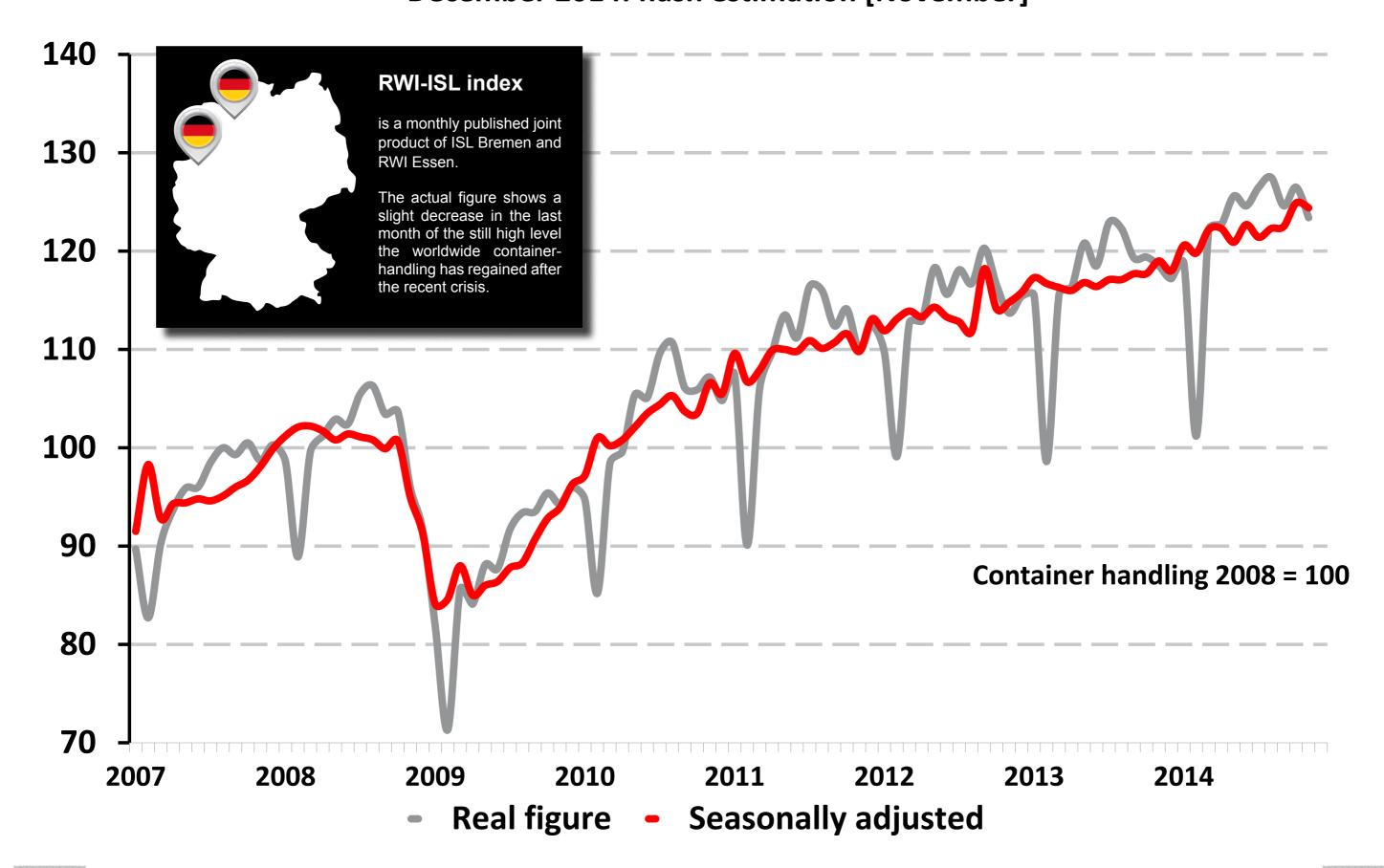
79 78 **EOX**® BOX® <u>+ 2014 - 11+12 -</u>





## **RWI-ISL** container handling index

Estimations on informations from 75 ports December 2014: flash estimation [November]

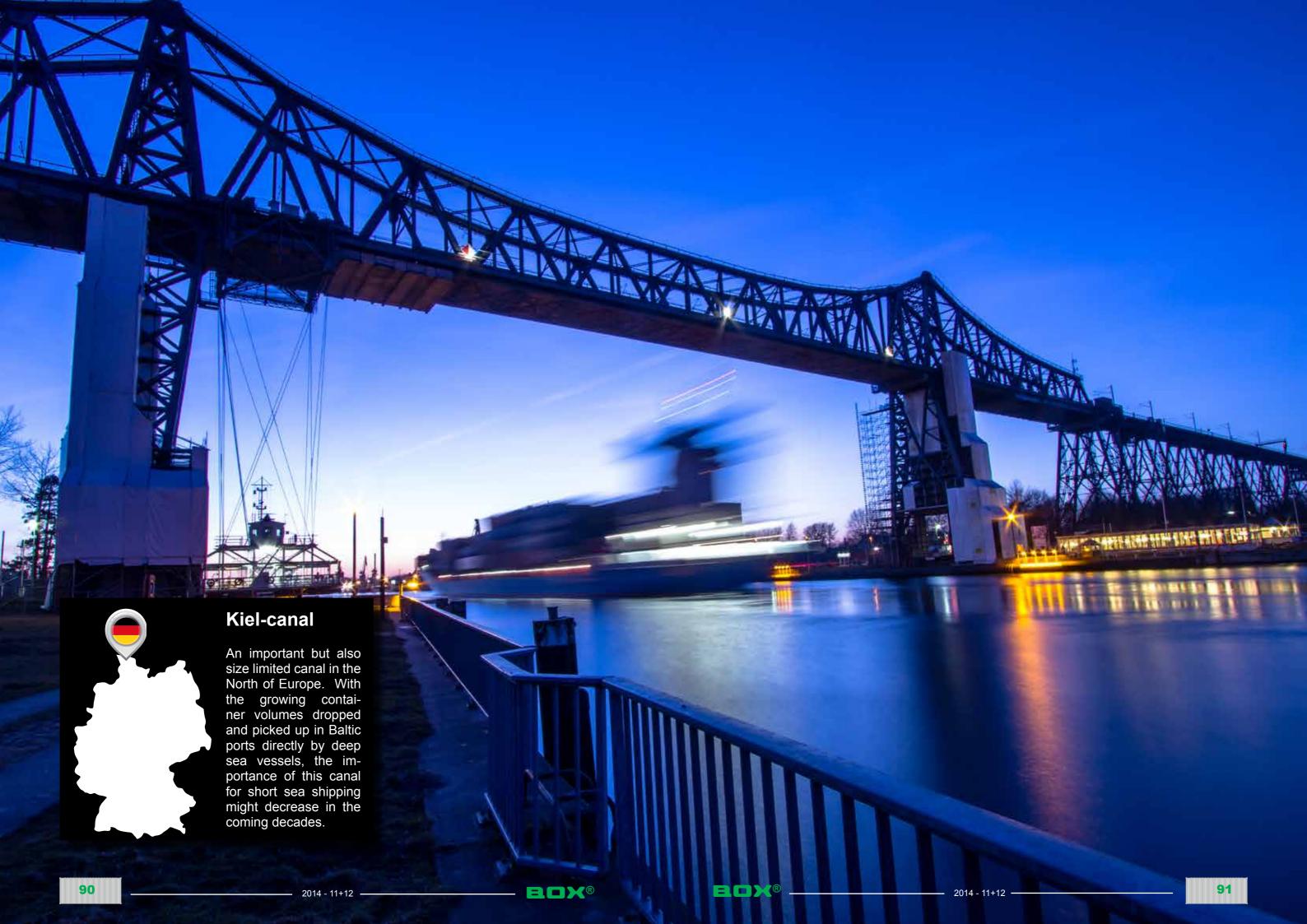


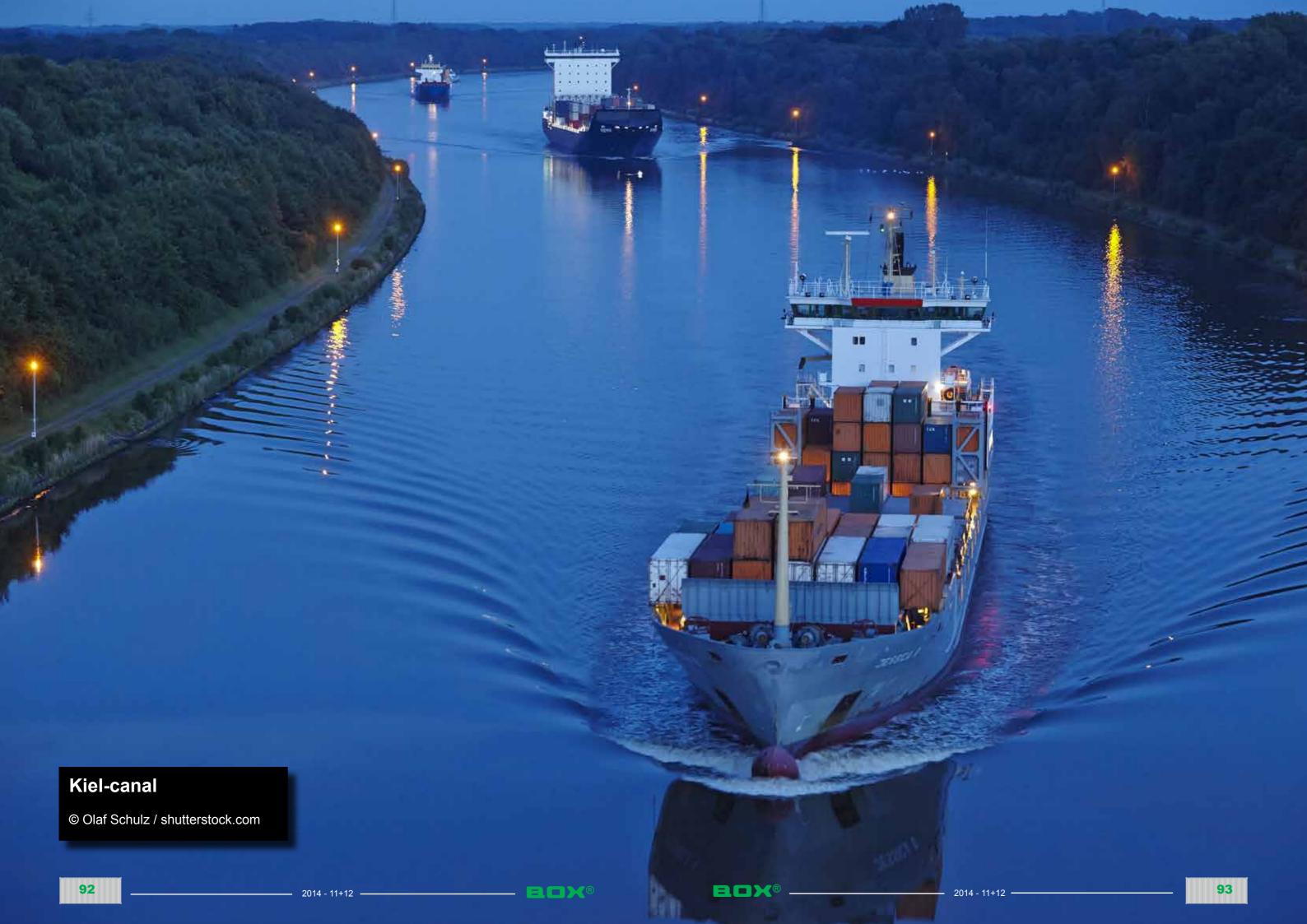








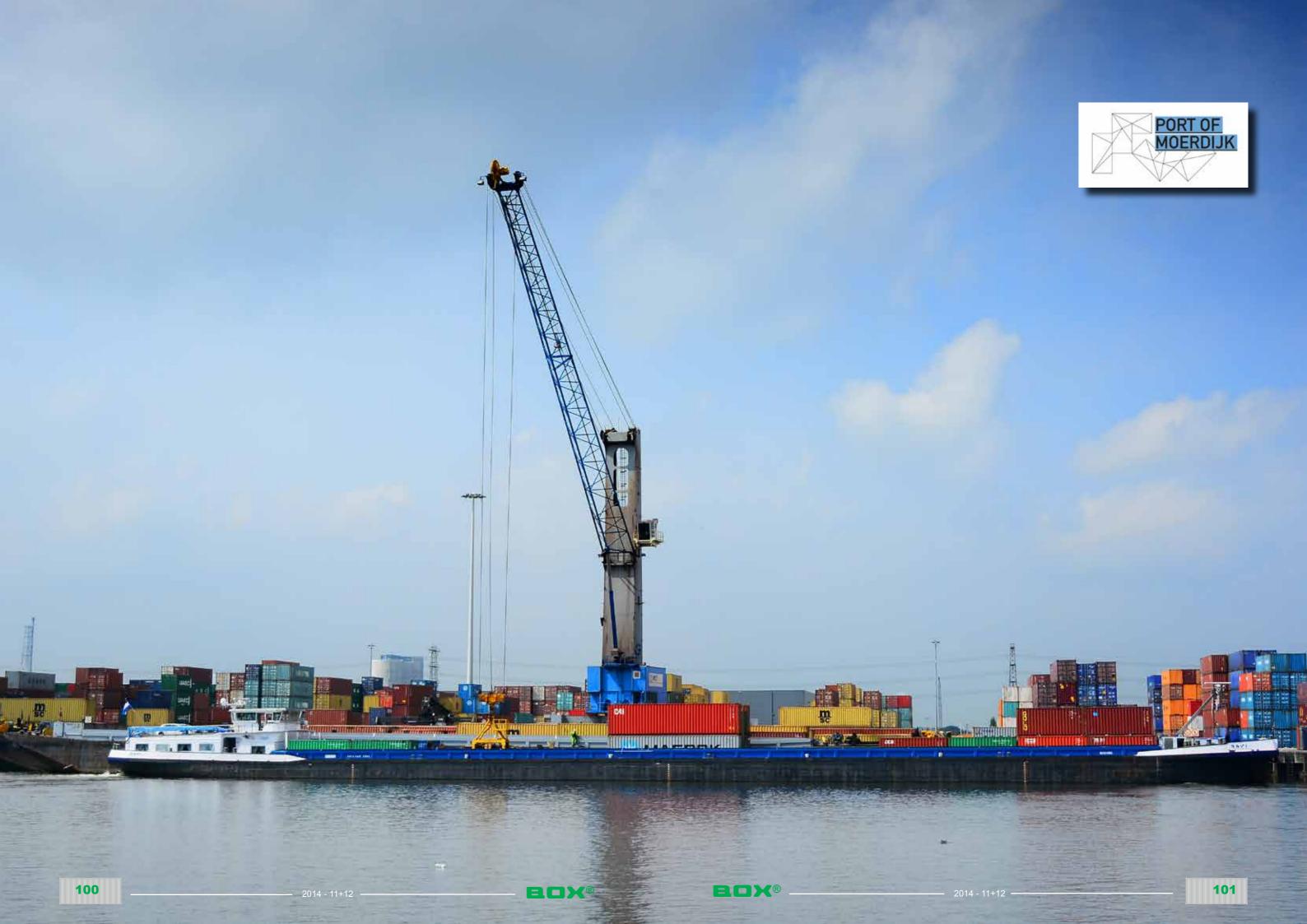






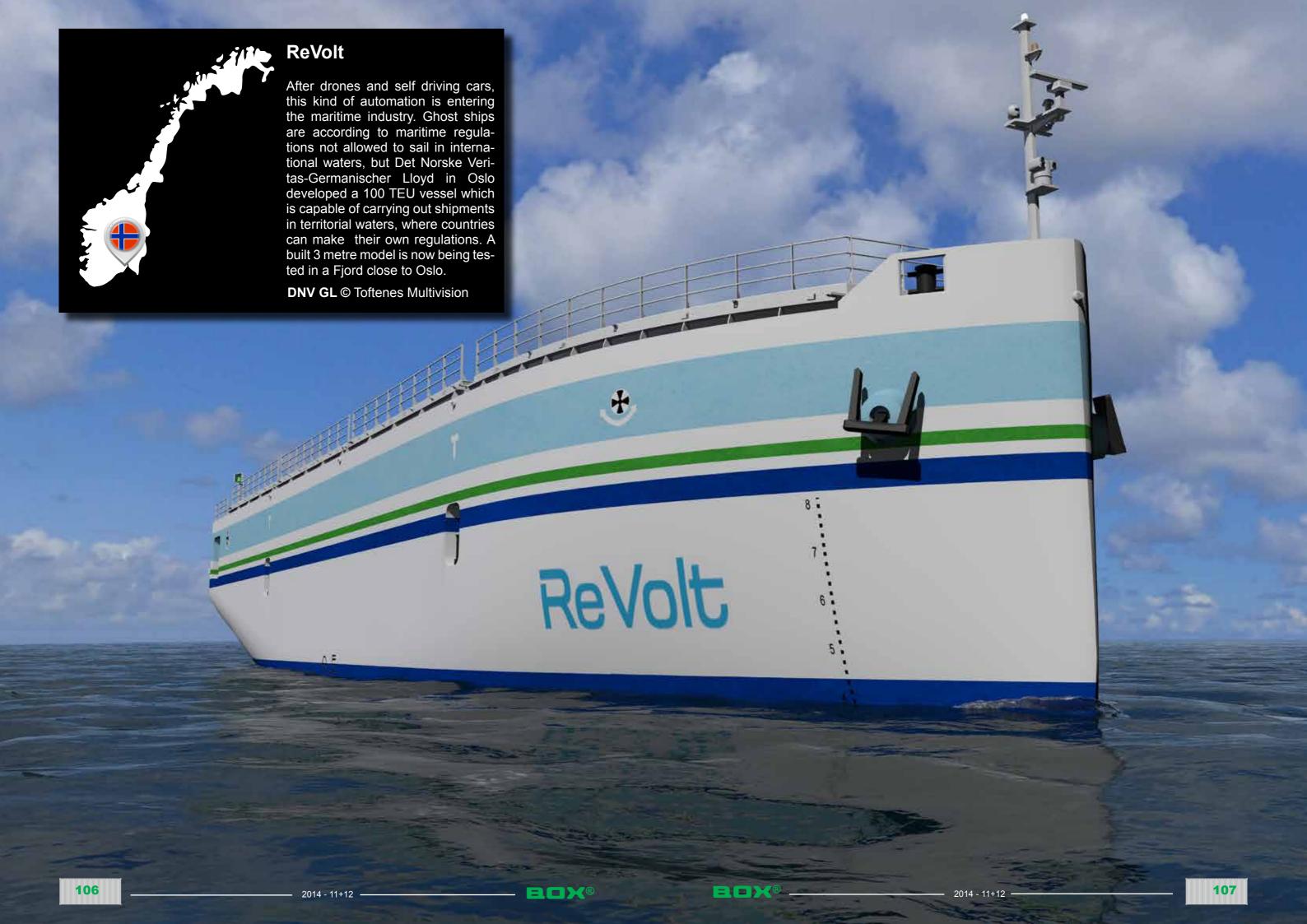














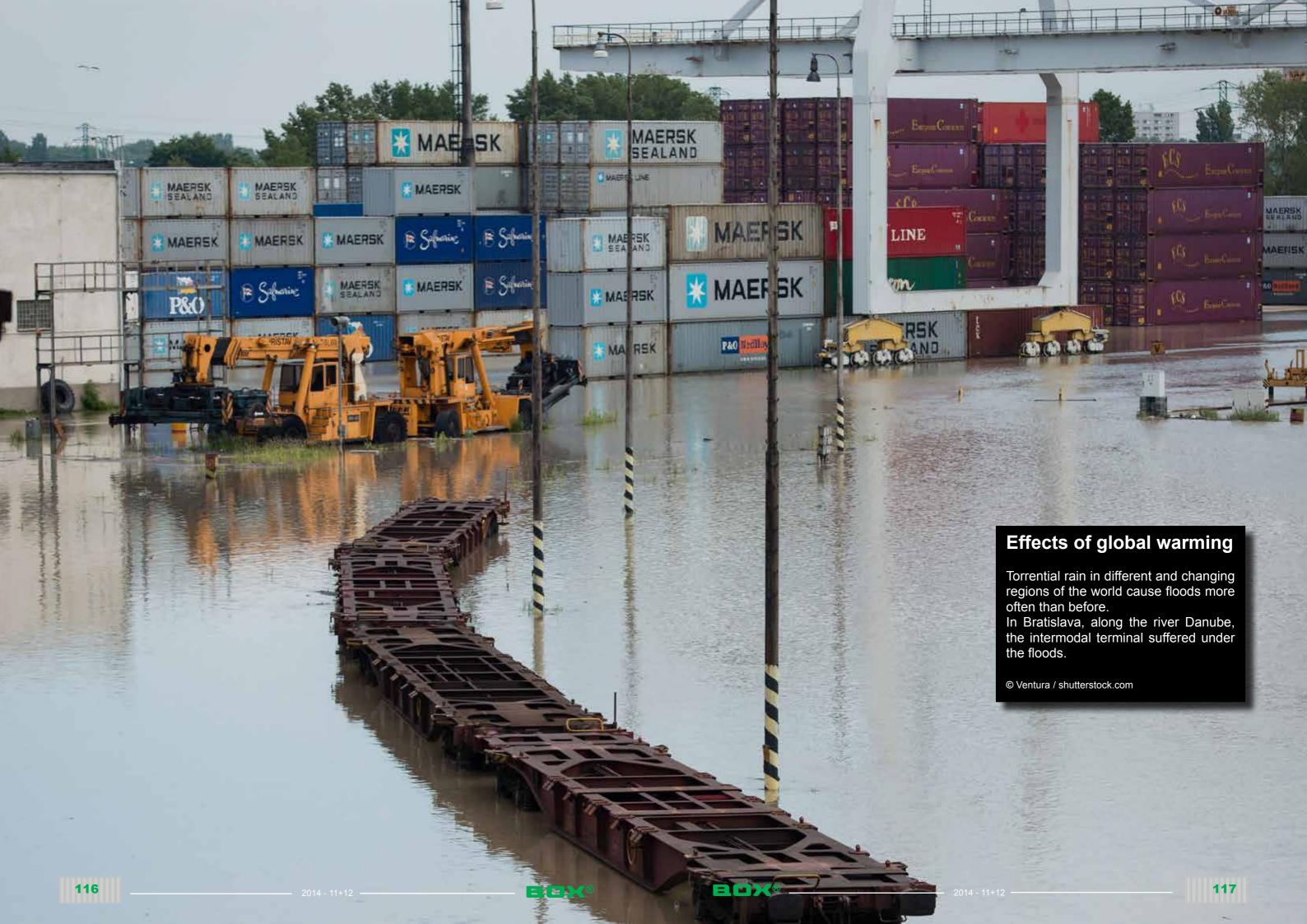


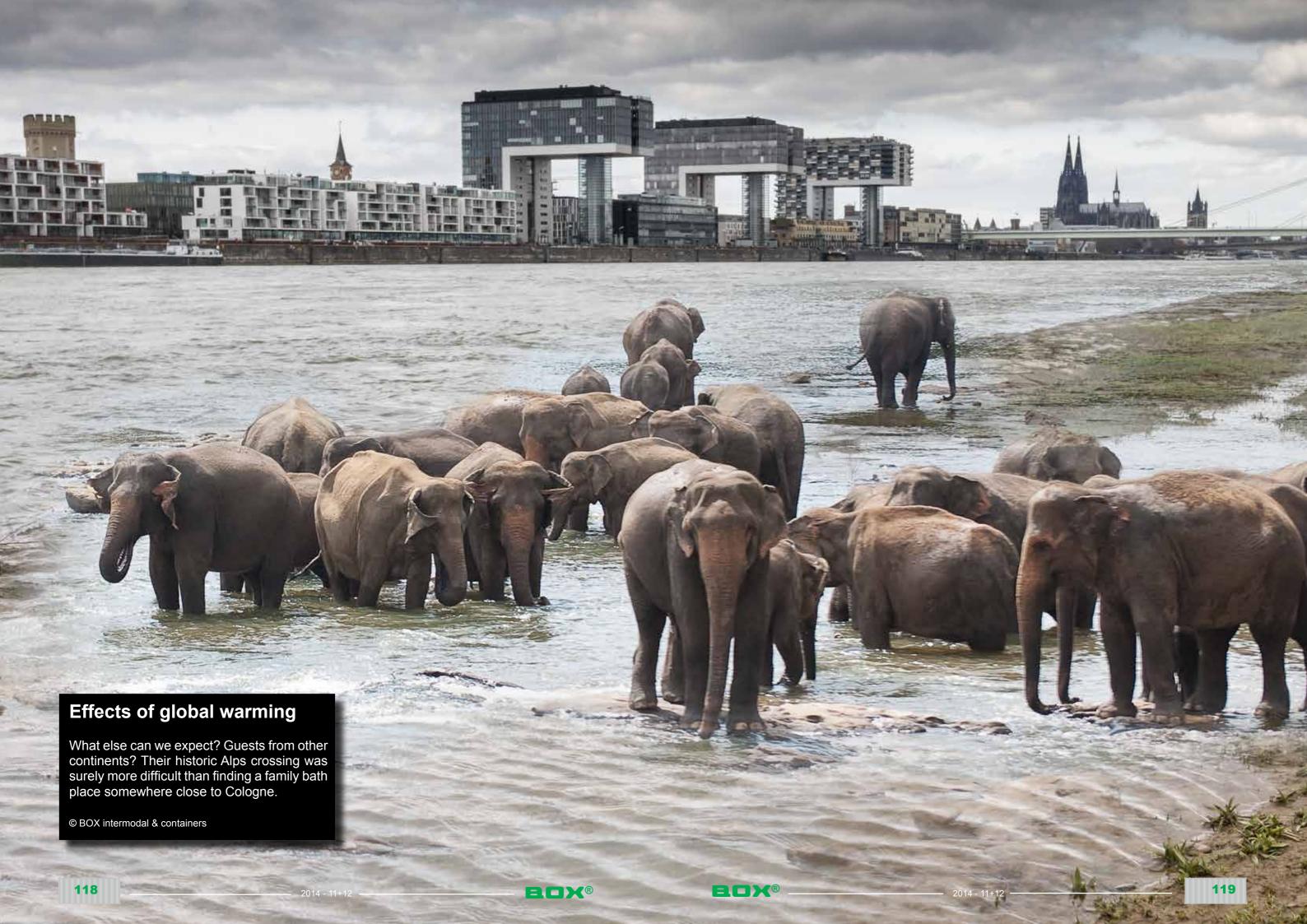


























## **Driverless deliveries only?**

What more can we expect in the future? Certainly a higher participation of robots and robotized functions in intermodal logistics.

Planning? Tendering? Pricing?

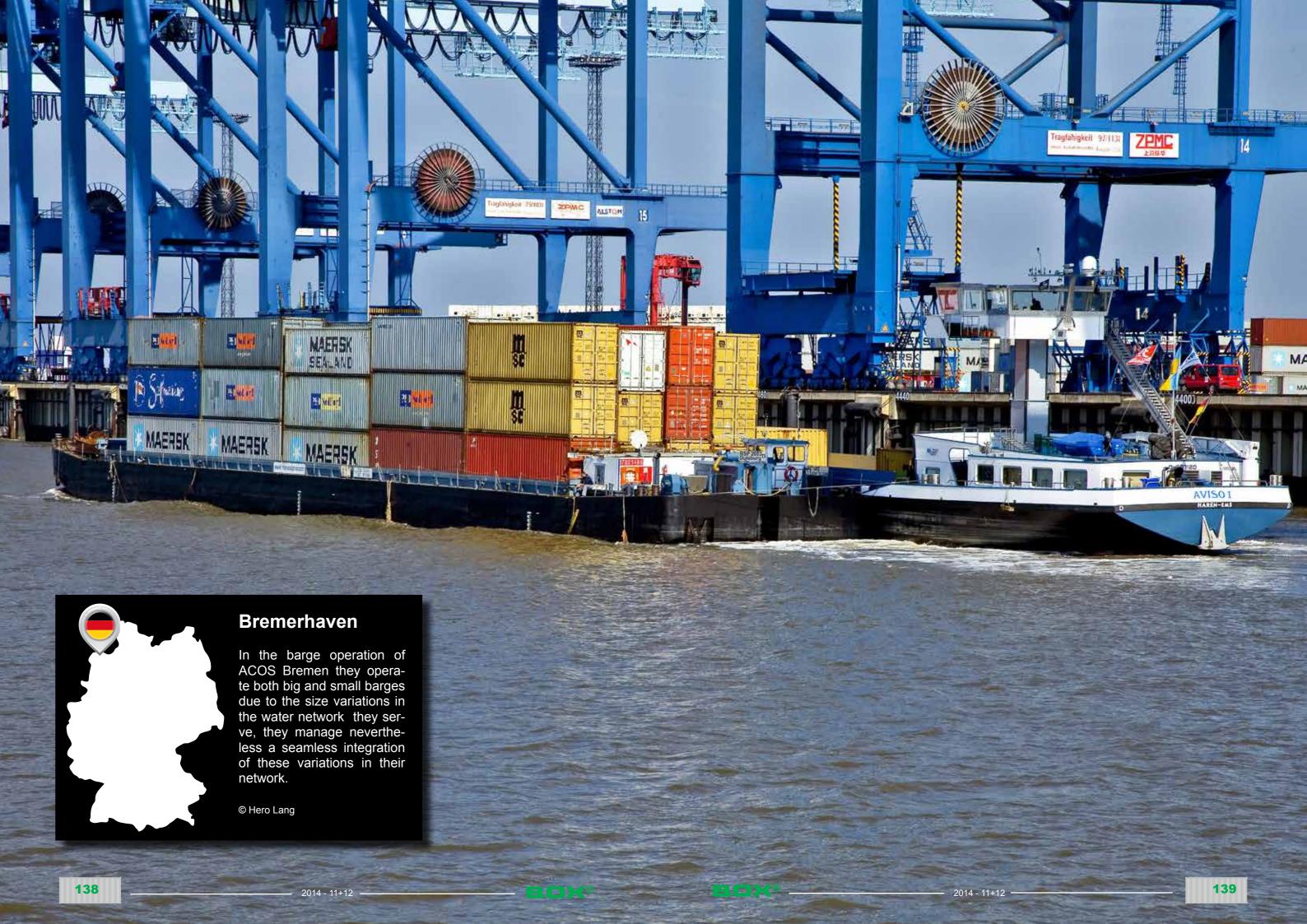


 $\mathbf{BOX}^{\mathbb{B}}$ 

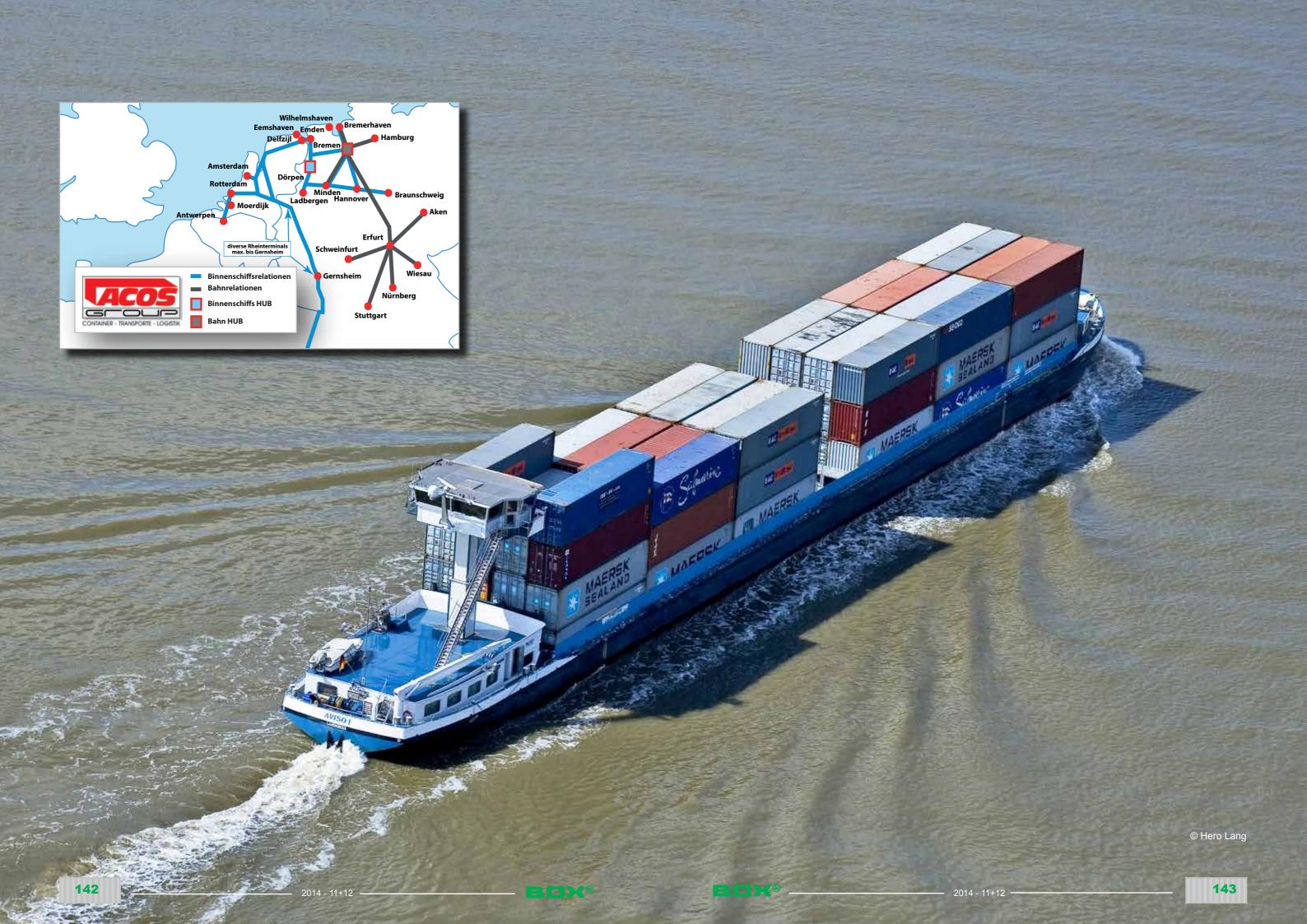




























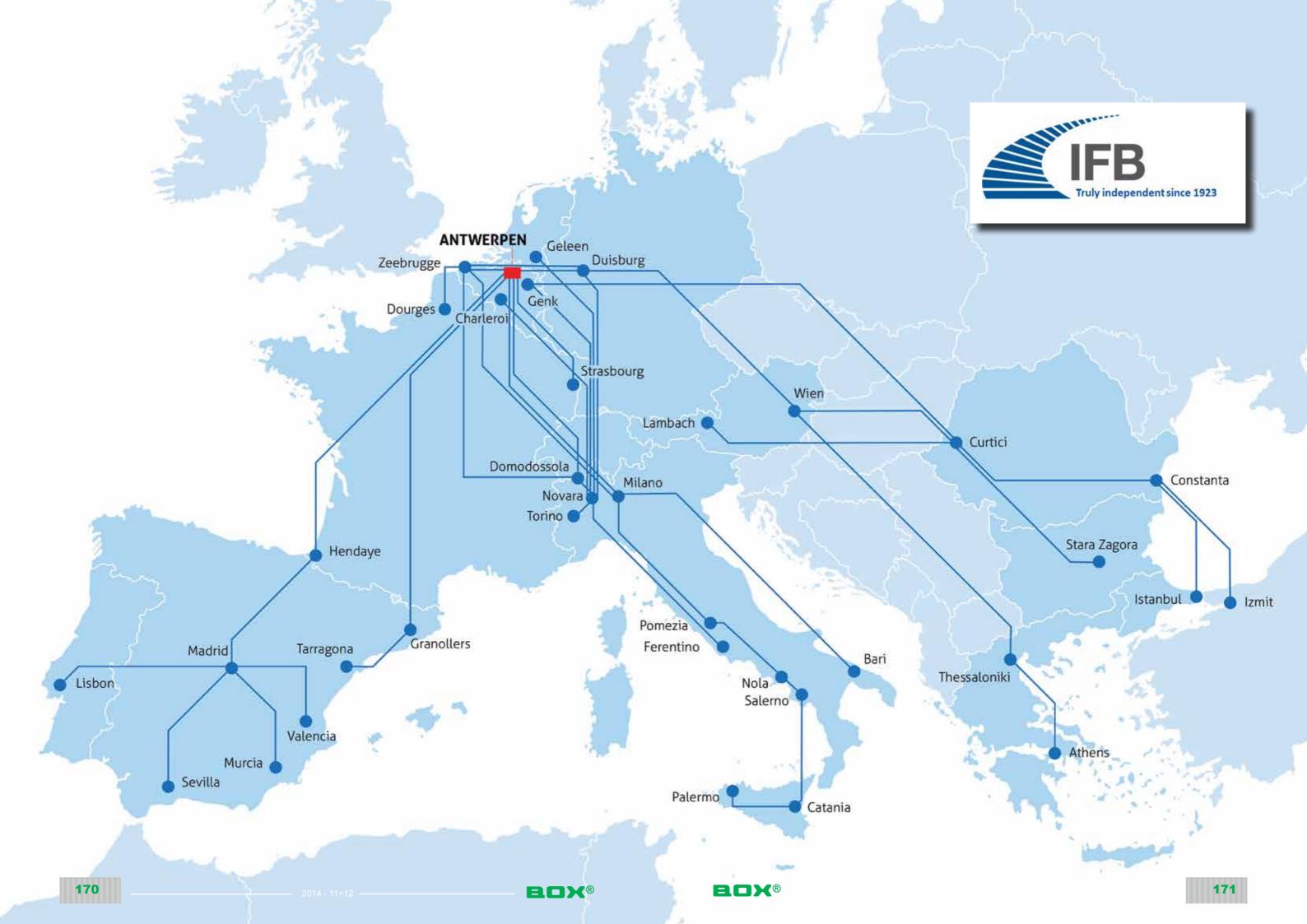
























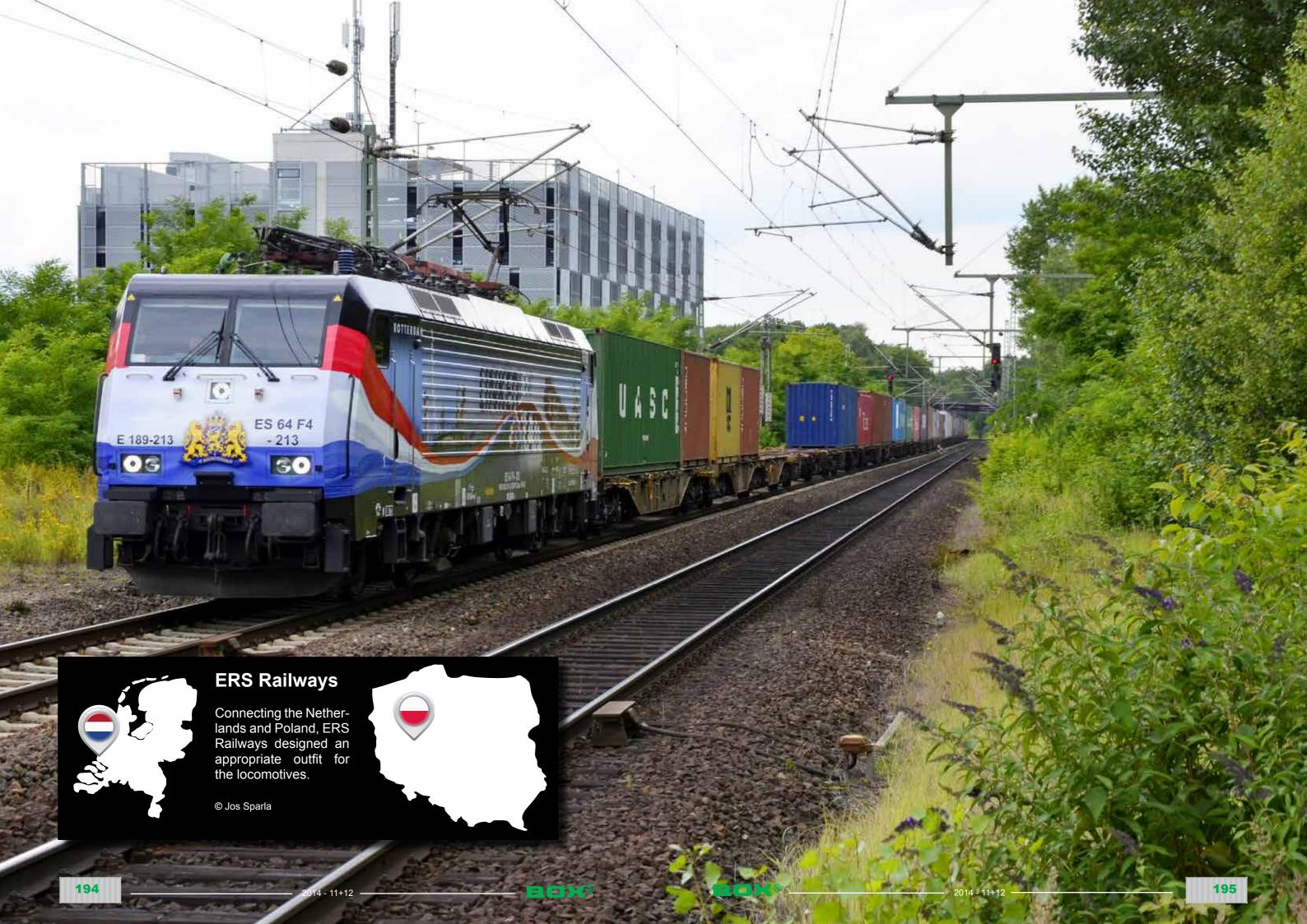
## China-Europe Express Rail Routes CRCT 中铁集装箱 www.crct.com 叶卡捷琳堡 Yekaterinburg 华沙 布列斯特 Warsaw Brest 三间房 Sanjianfang Duisburg 阿拉山口 乌鲁木齐 沈阳 二连浩特 Lianyungang 西安 苏州 成都 Chengdu Suzhou Chongqing BOX®









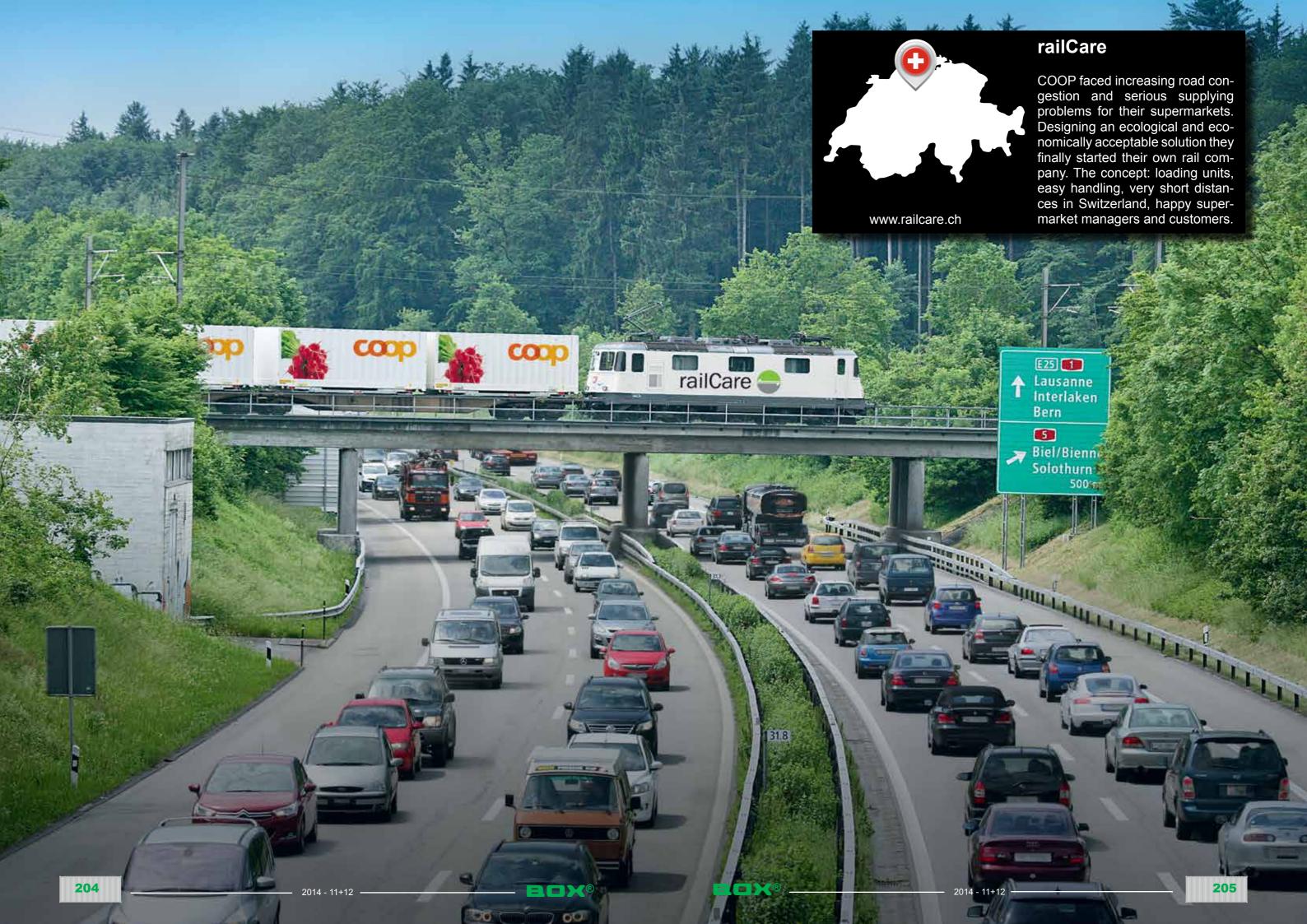


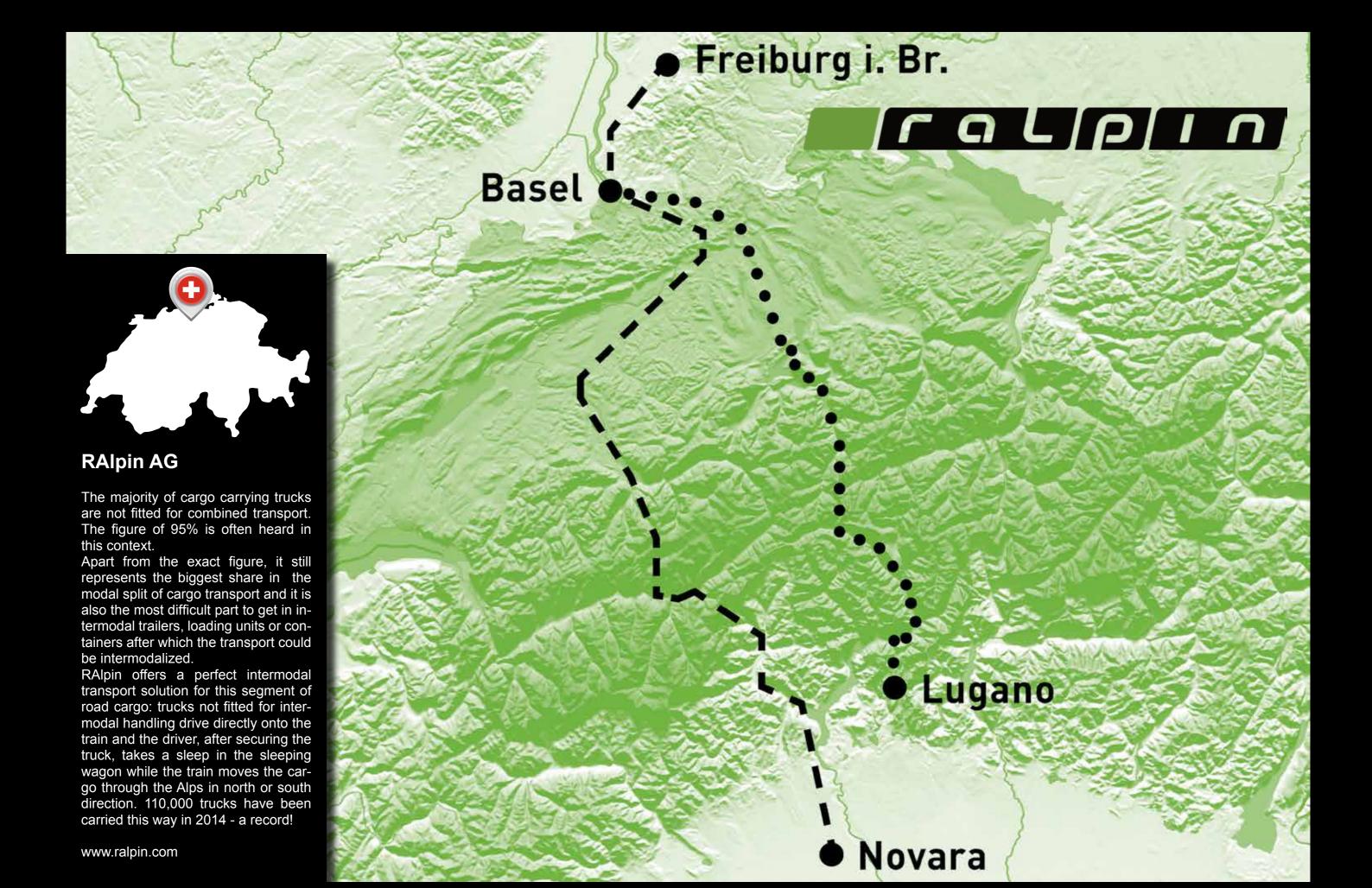












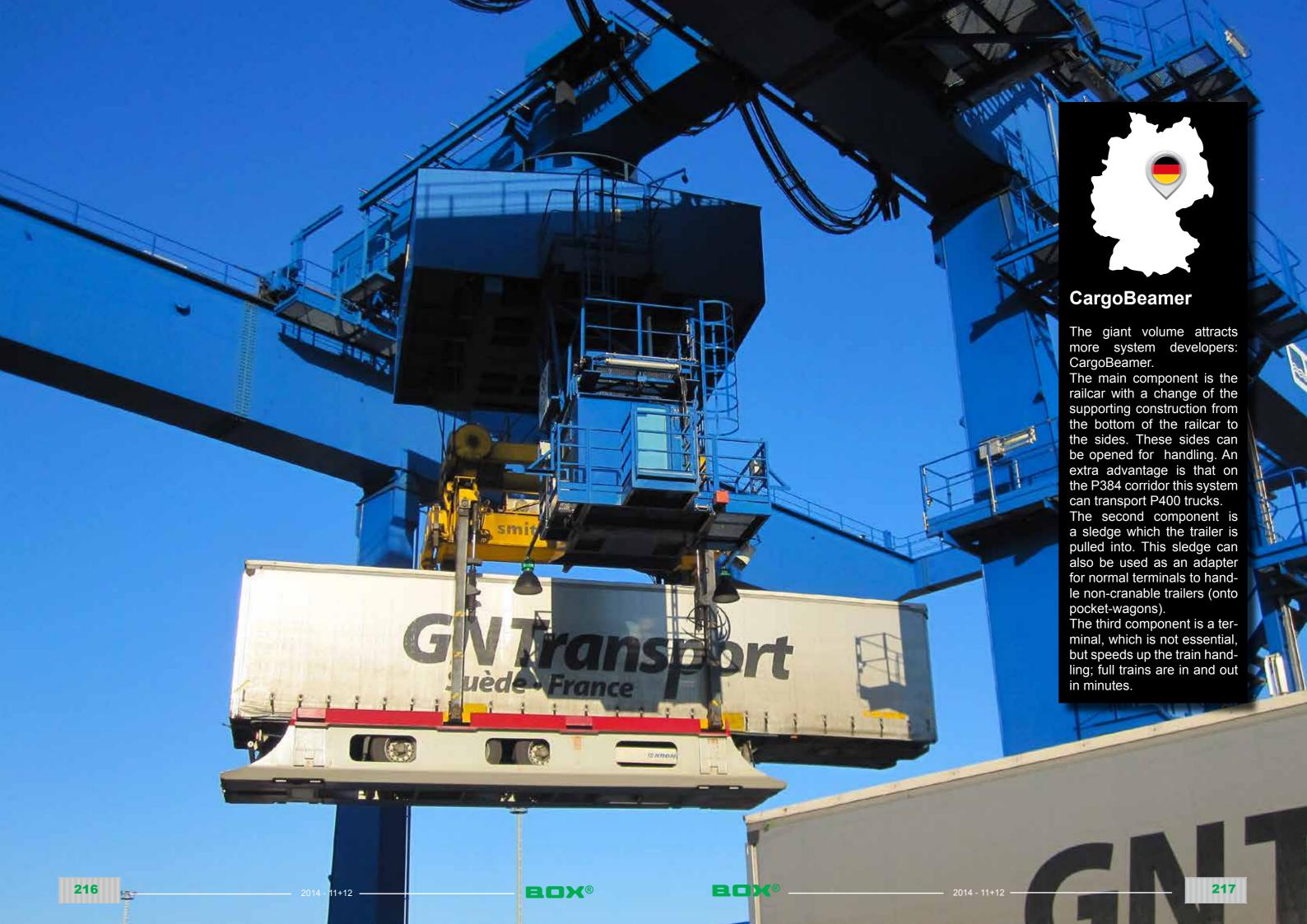
2014 - 11+12











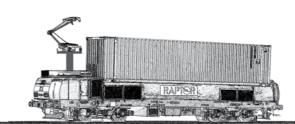


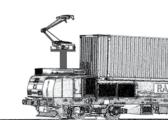










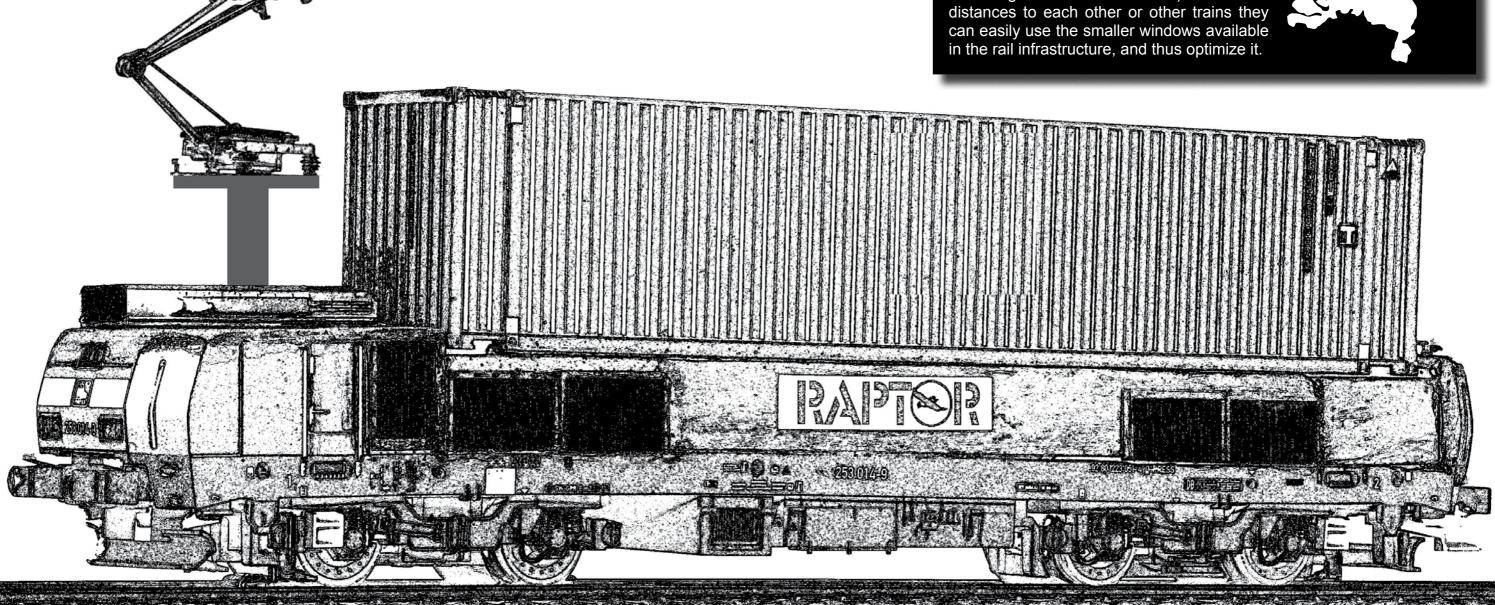


### rail-AGV

Driverless rail transport with the flexibility of road transport is what the developers Paul van Bers and Marco van der Toorn mentioned in their presentation of the rAGV (rail automatic guided vehicle = rAGV). With short distances to each other or other trains they can easily use the smaller windows available in the rail infrastructure, and thus optimize it.

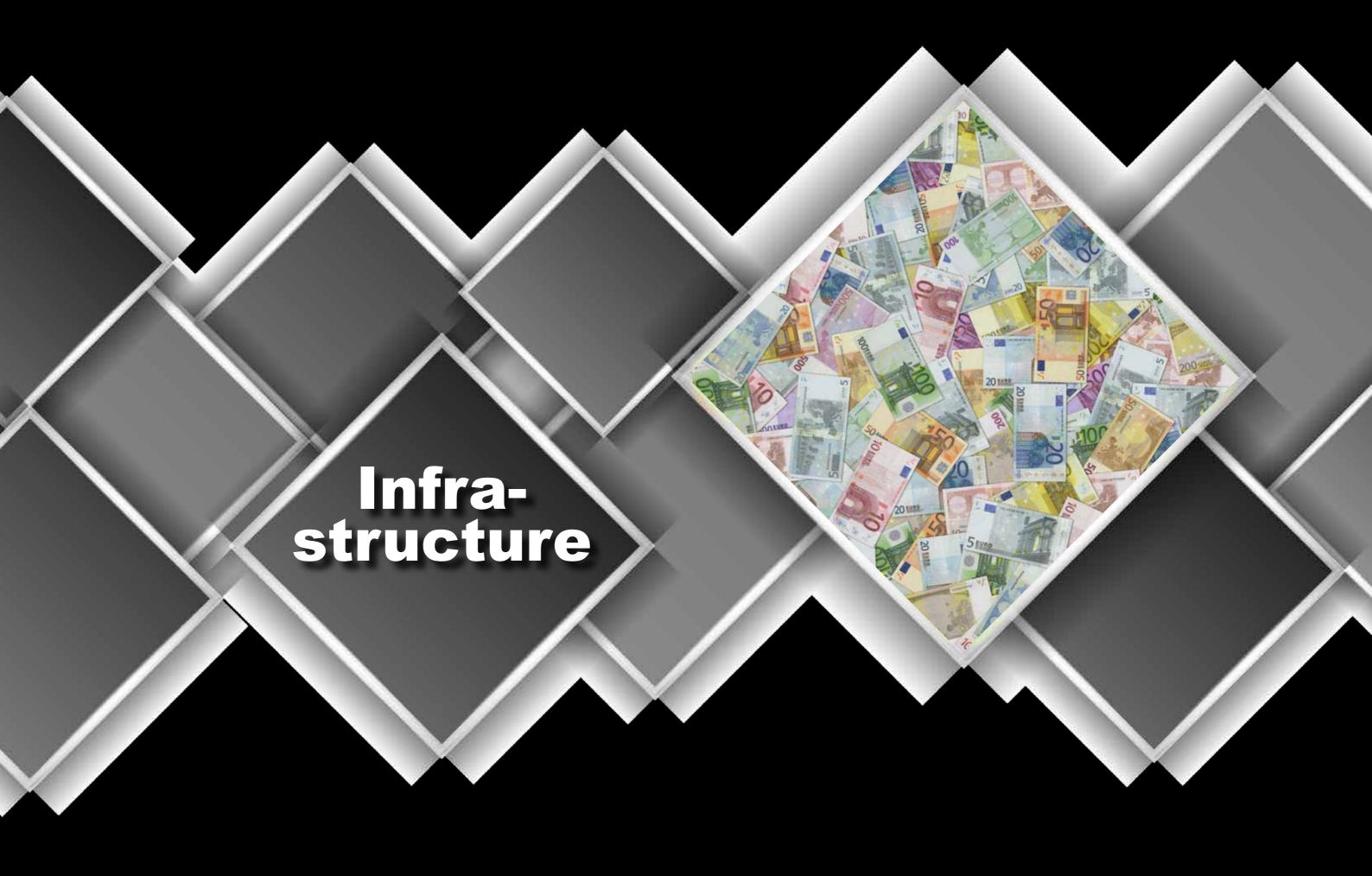
— 2014 - 11+12 *—* 





**–** 2014 - 11+12 **–** 









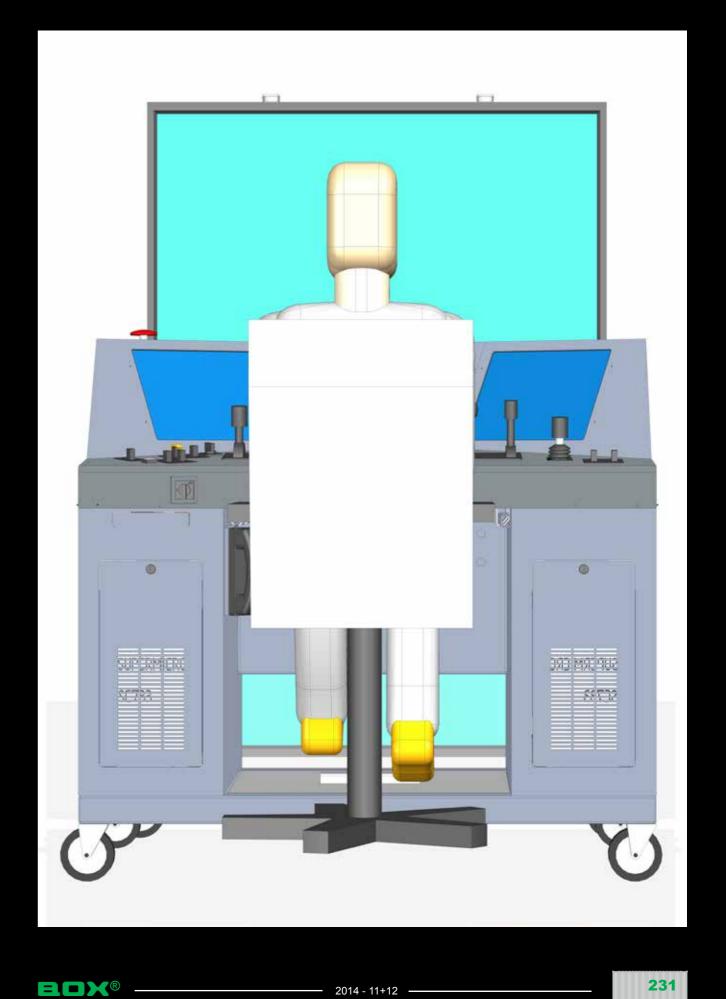




### **MEV Suisse**

ETCS -European Train Control System- will be introduced on the Gotthard corridor (Basel-Chiasso) in the summer of 2015. In order to have enough locomotive drivers trained by then MEW bought two simulators to offer training on the most frequent used locomotive in this region - the 185 series.

Contact: t.dibenedetto@m-e-v.ch







#### **Seine Nord Euorpe**

Scaling up the "Canal du Nord" connects the Northwest of France and the Seine region with the complete European waterway network. This is IN-FRASTRUCTURE in capitals and of historical importance for France and Europe as a whole. Great ideas need time to get designed, understood, supported and realized. Europe and the rest of the world recover from the recent crisis, so timing is a bit unlucky

for such huge projects and investments, but the importance kept the plan on the agenda. A series of changes and improvements -in the design and in the financing- brought the plan finally to the necessary political "GO" which can initiate further planning and works.

The fact that the approximate moment the works will start was originally about the planned date of completion is for the background of its infrastructural importance only a little blemish.

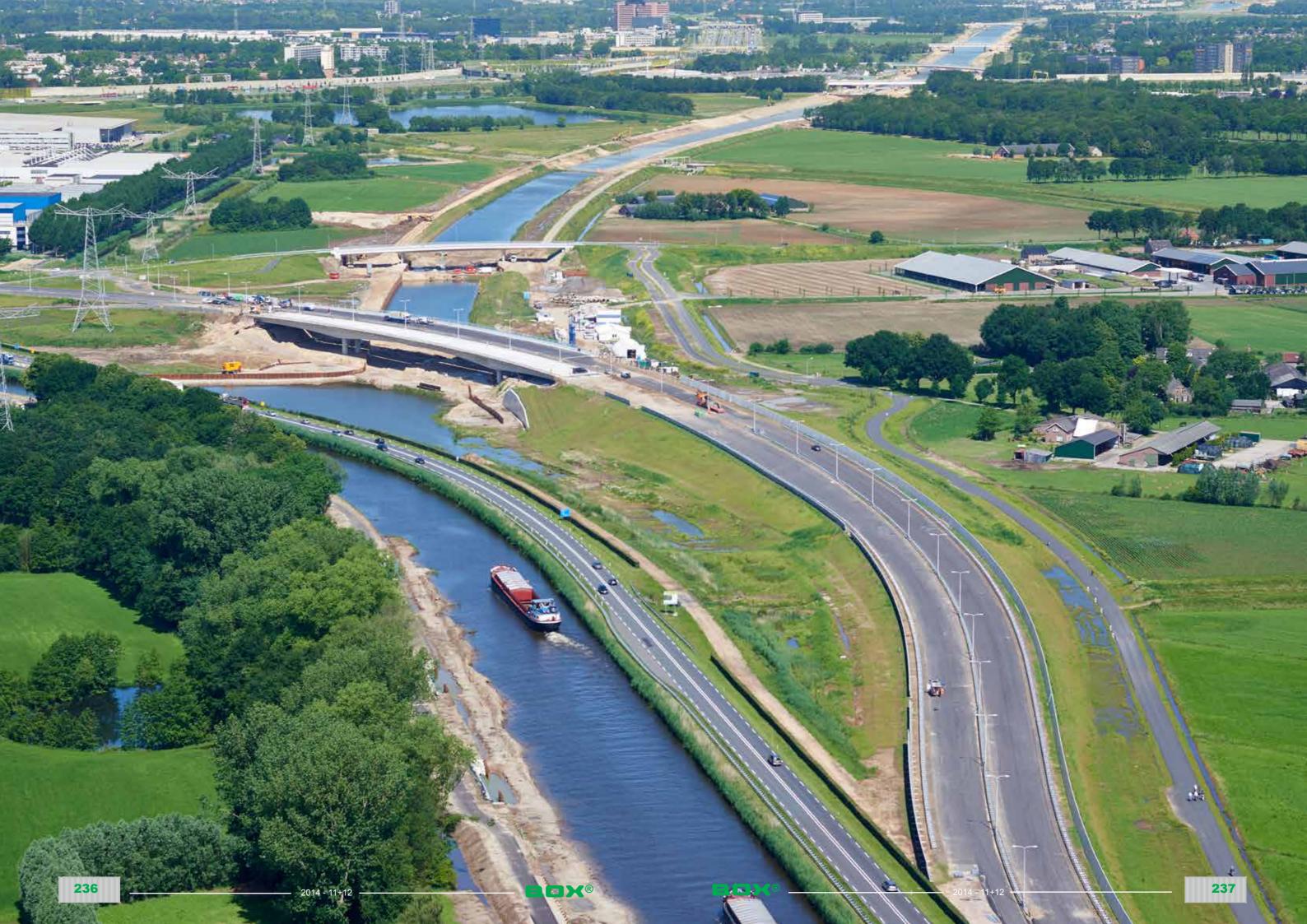
Important for this kind of infrastructural works is the perspective of the whole axle where this part is fitting in. The connecting waterways in Belgium and the Netherlands have already been scaled up in preparation of this project of the century.

Navigating with 4,500 ts barges to and from Paris means an upscaling of approx. 12 times the actual navigable size of barges on this route. For the transport of containers on this route means the upscaling a future window of exactly 12 times more than the actual possible window.



















The compact operation of the NGICT seems a perfect concept for a MEGA-hub terminal where containers from one barge will be sorted out, grouped (for sea terminals or sea vessels) and reloaded in other barges.

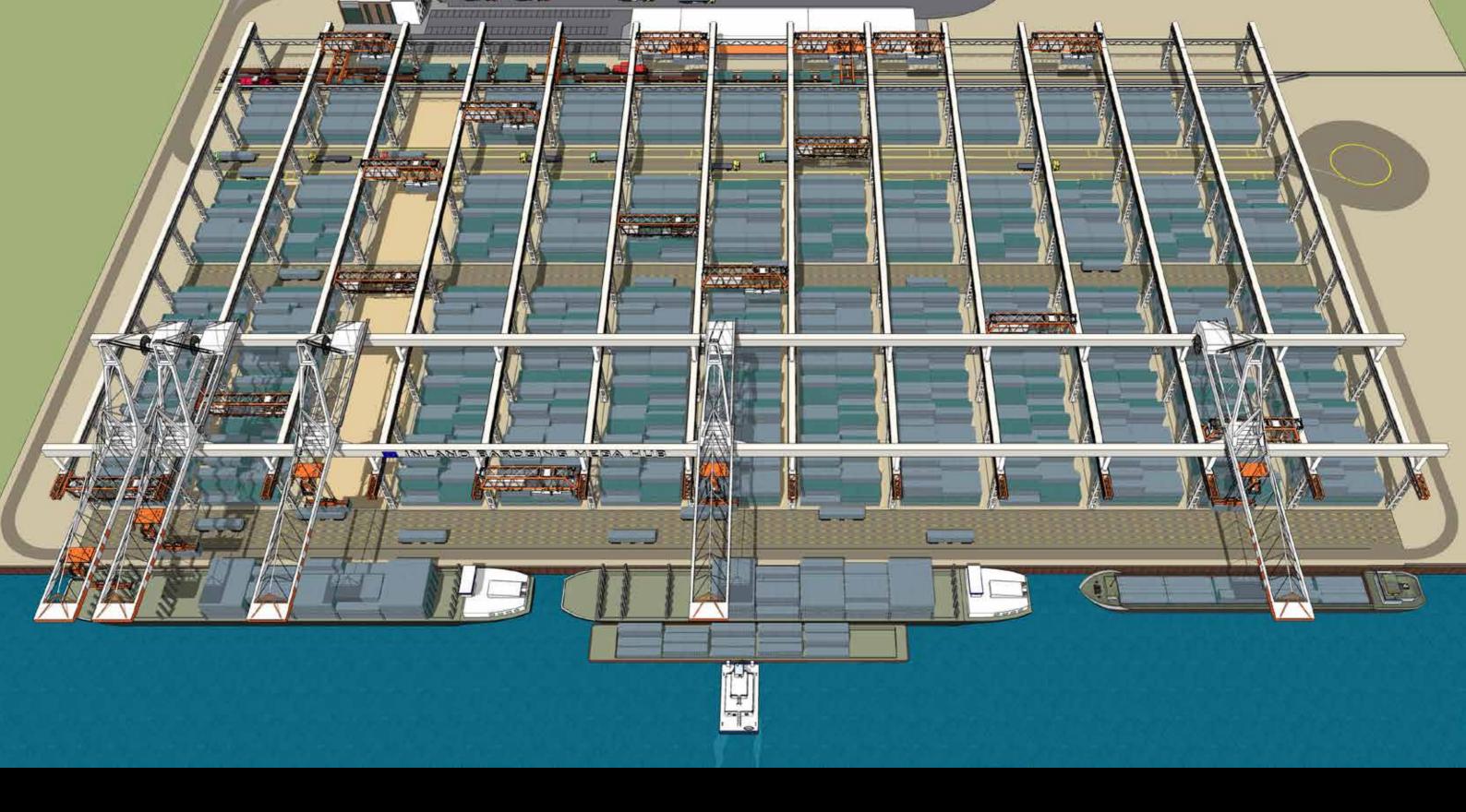
www.kochadviesgroep.nl



KOCH Consultancy Group

Engineers & Architects







KOCH Consultancy Group

Engineers & Architects



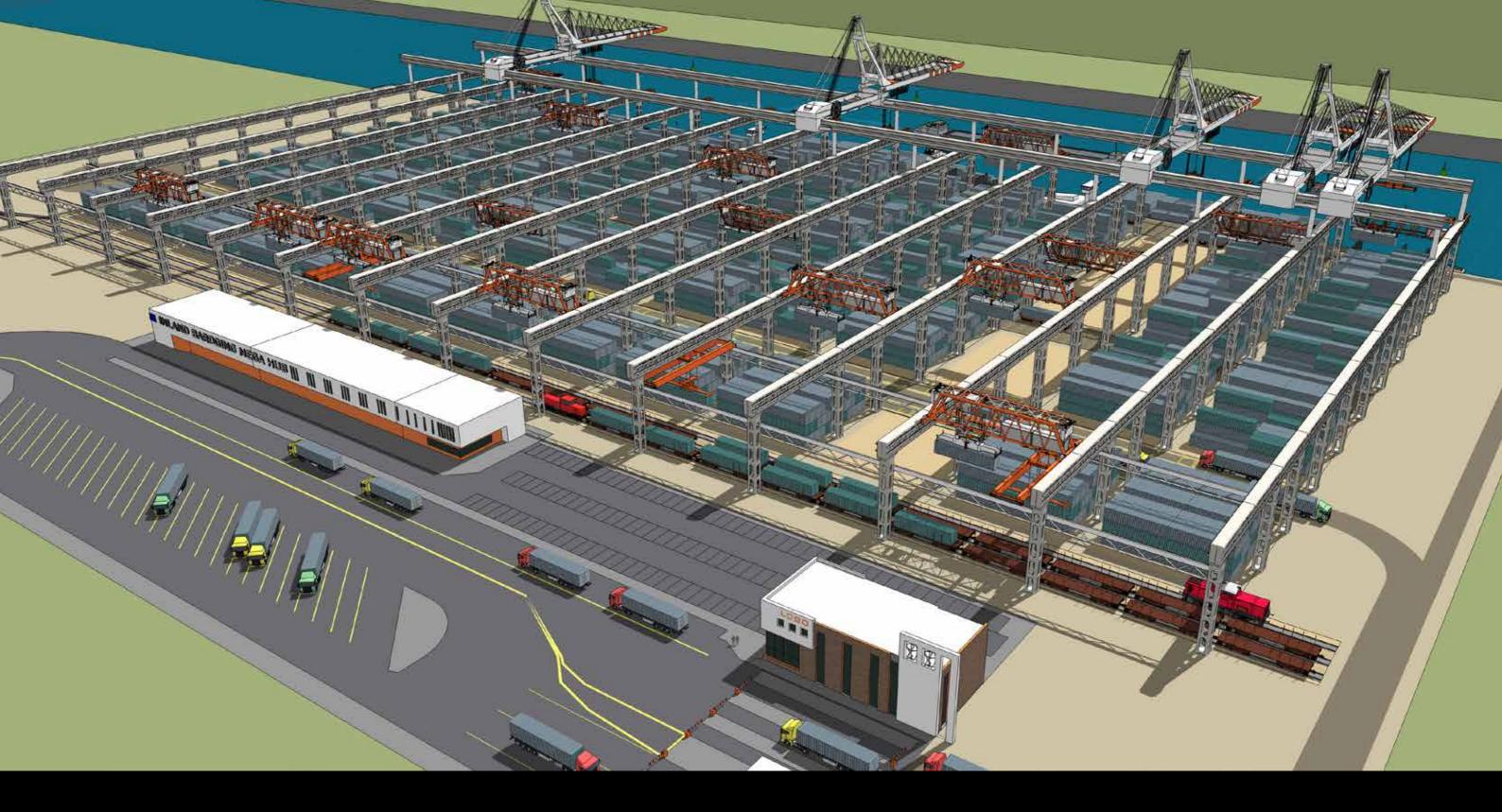
























# **NGICT** hot spot

The NGICT concept is flexible and applicable for huge operations (like a MEGA-hub) but also for a terminal to be built on limited space still with a high throughput (f.e. 80,000 TEU per year).

www.kochadviesgroep.nl





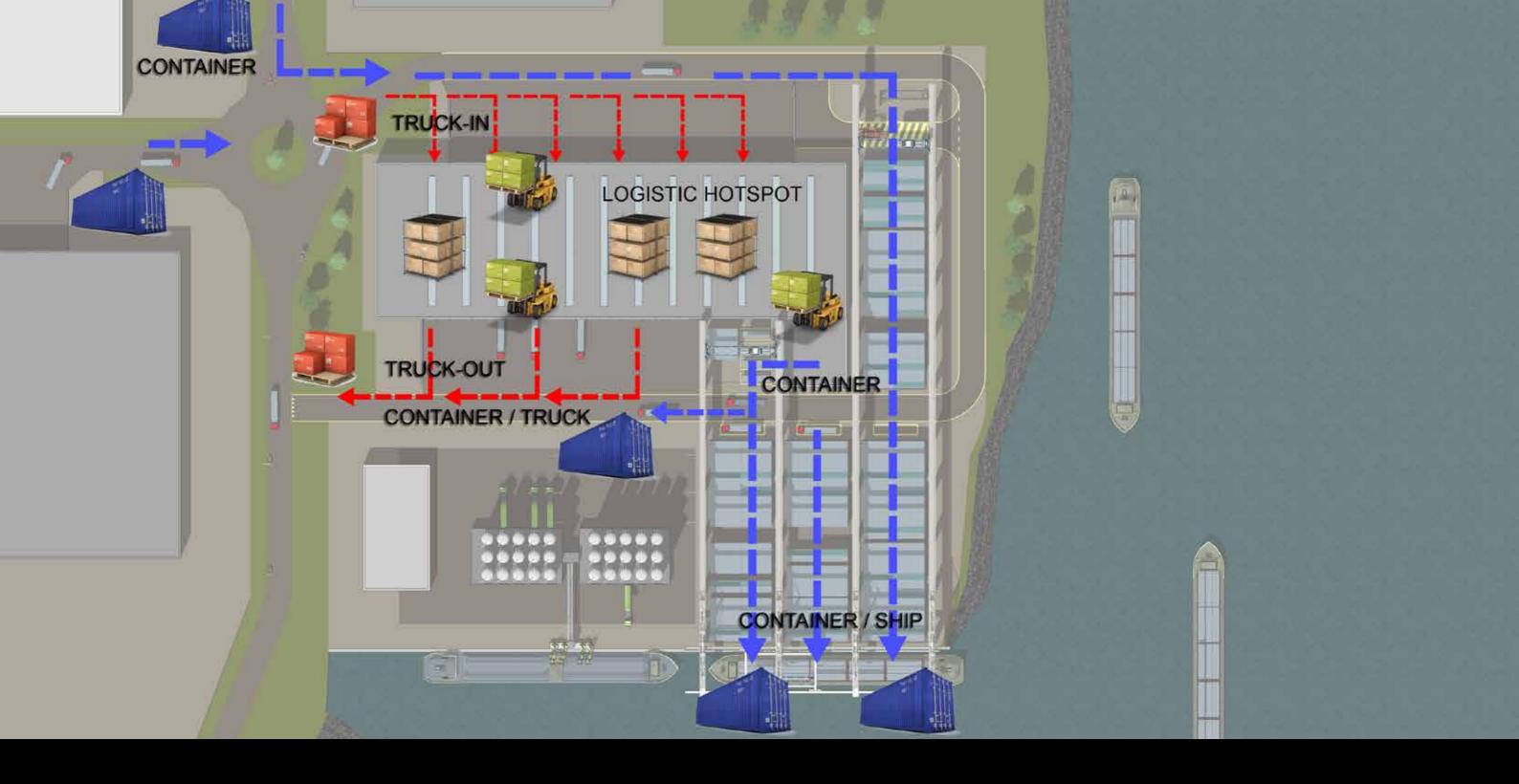














258

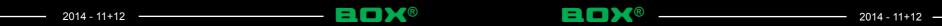


2014 - 11+12 -













LOGISTIC HOTSPOT



CONTAINER

- THE SURPRISING BENEFITS OF THE NGICT:
- CHEAPER INVESTMENTS REDUCTION OPERATIONAL COSTS
- MINIMUM SPACE OCCUPATION
- HIGHER SPEEDS
- MORE THROUGHPUT
- LOW CARBON FOOTPRINT

FOR MORE INFO SEE WEBSITE: WWW. KOCHADVIESGROEP.NL

**MULTI MODAL LOGISTIC HOTSPOT** INTEGRATED HANDLING PROCESSES

CONTAINER





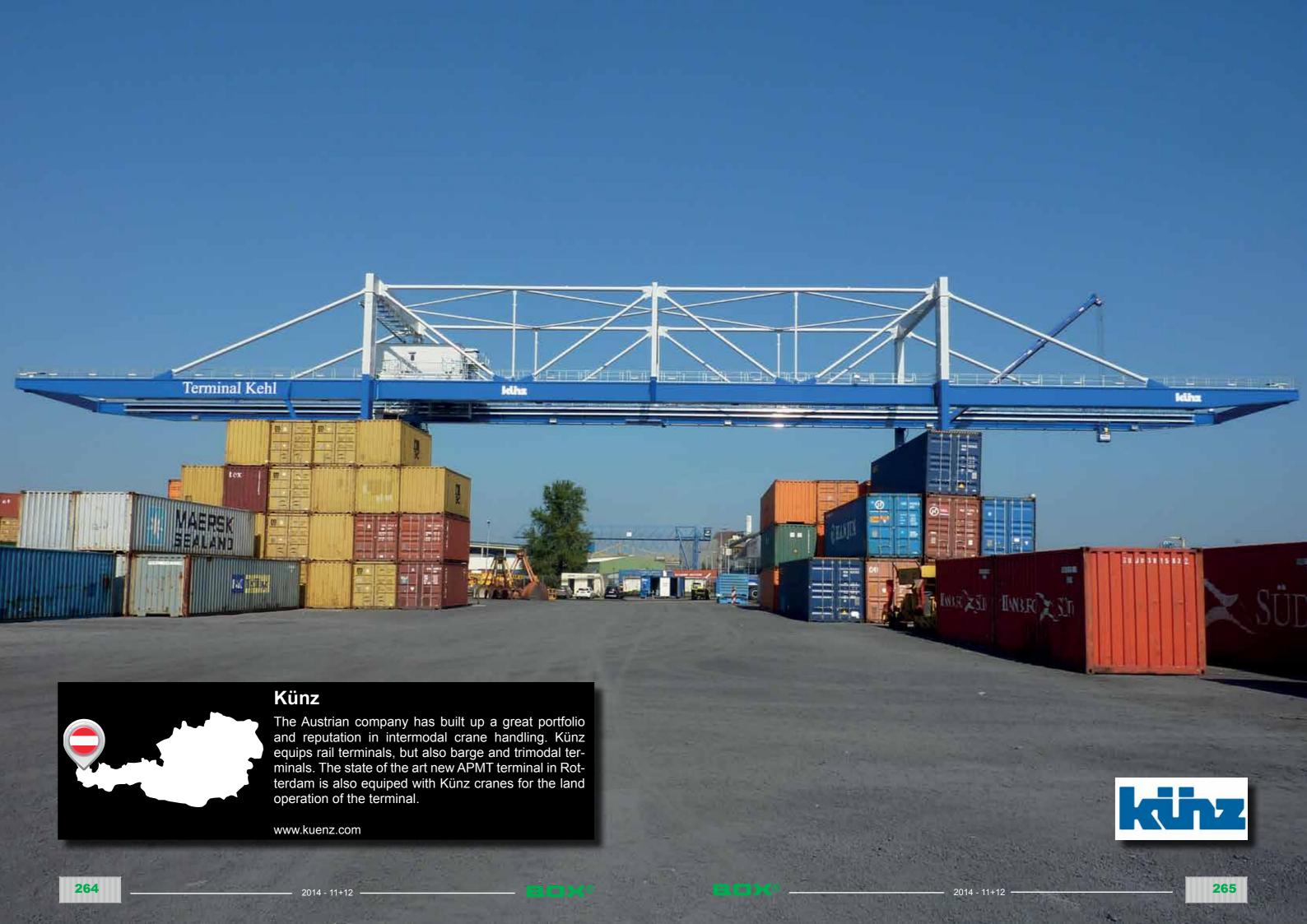
TRUCK-OUT

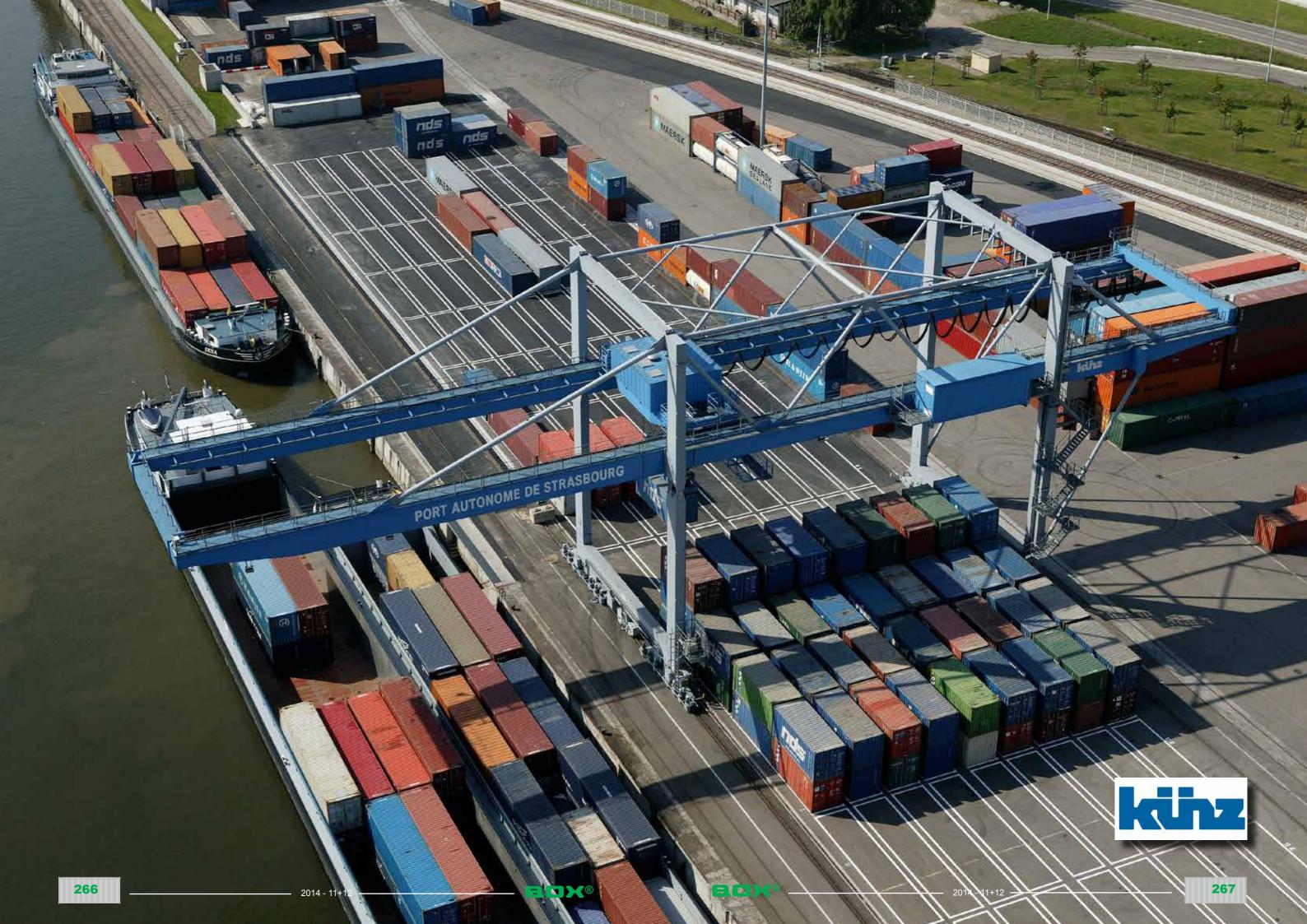
CONTAINER / TRUCK

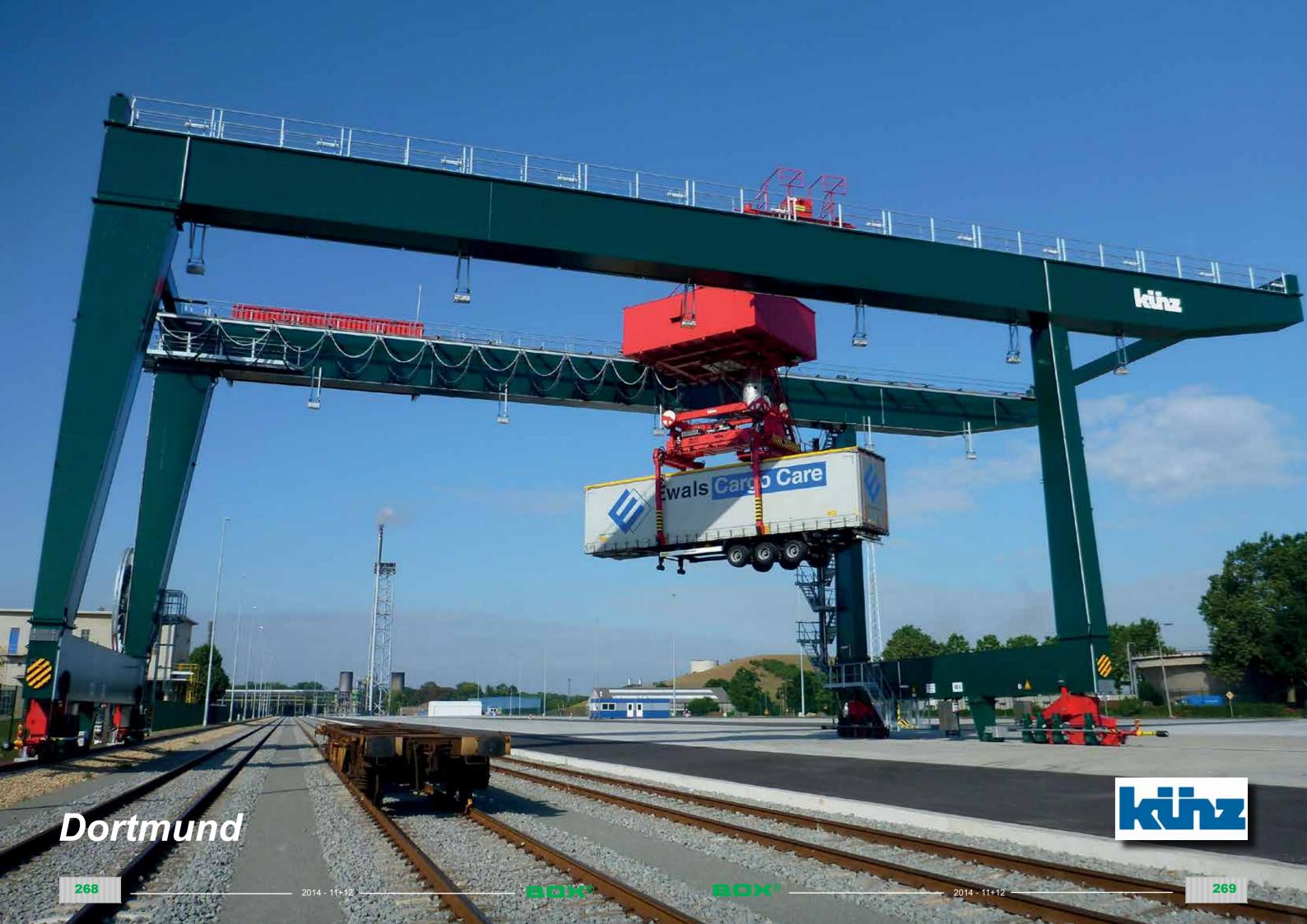
- SHARED PROCESSES

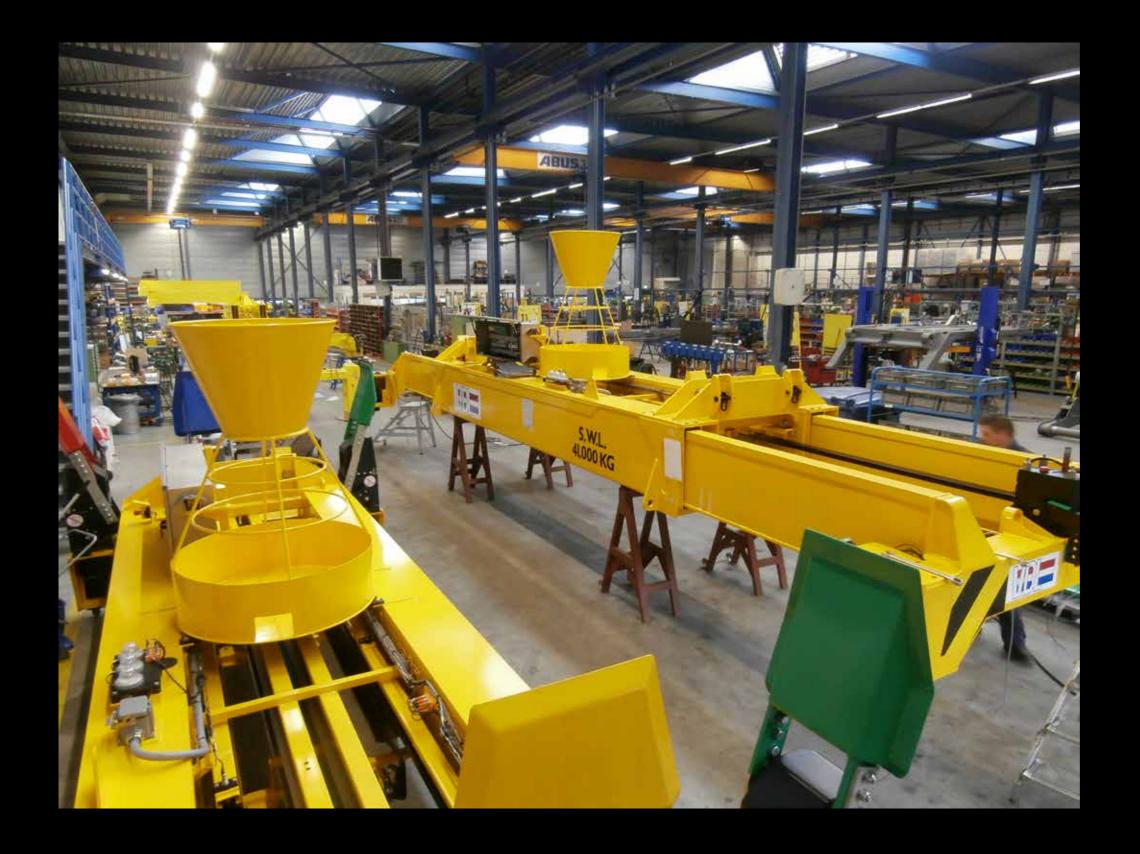
- MUTUAL PROFITS

- SYNERGY









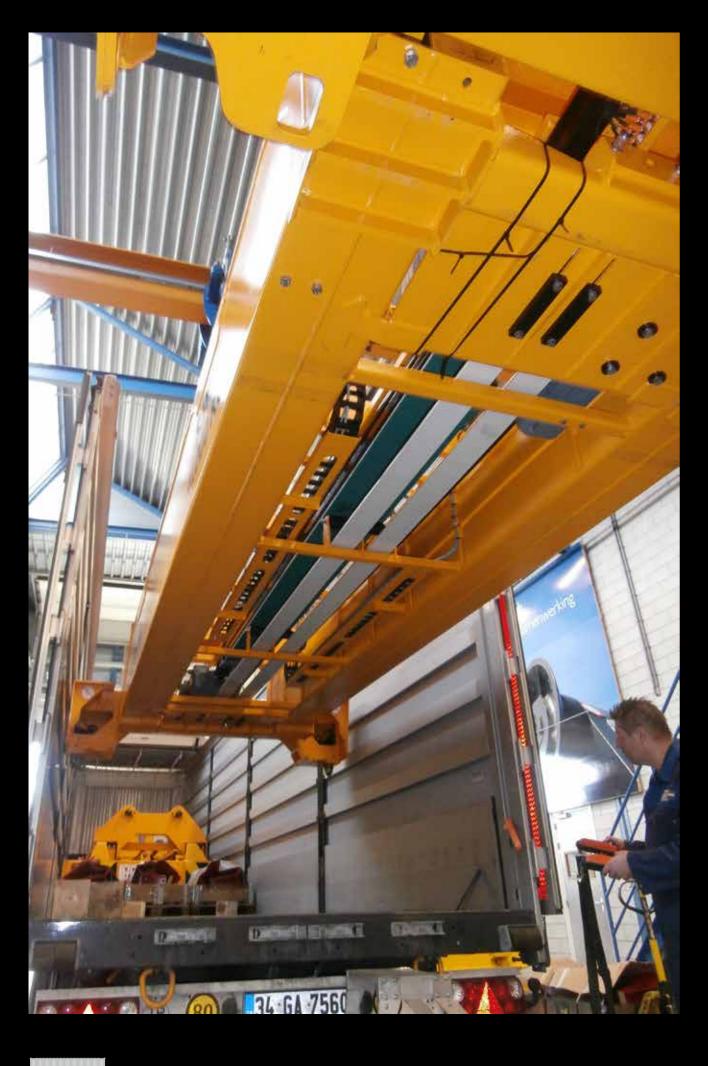
# **VDL**



Producing container spreaders with a strong focus on inland terminals and individual specifications tions.

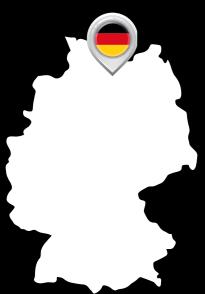
AGVs were also ta-ken in their produc-tion programme last year with a first se-ries for ECT in Rotterdam.











# **Port Feeder Barge**

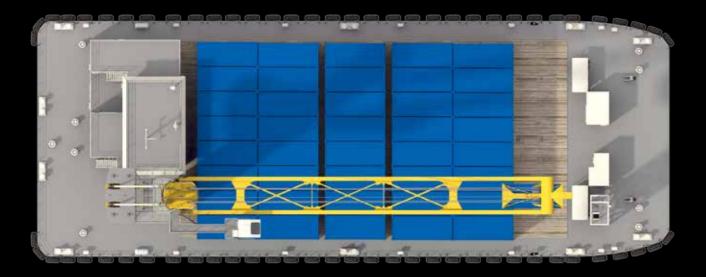
The idea: a containerhopper with its own crane in the port of Hamburg to bring containers from the deep sea terminals to the warehouse areas -instead of using the road- for unloading or the other way around to pick them up for outgoing sea traffic. The perspective of a third party crane handling containers on a terminal is a serious hindrance for such a project. Perhaps the deep sea terminal should participate in the project with the direct advantage of less gate moves.

www.portfeederbarge.de











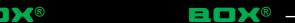
# **DAMEN Crane barge**

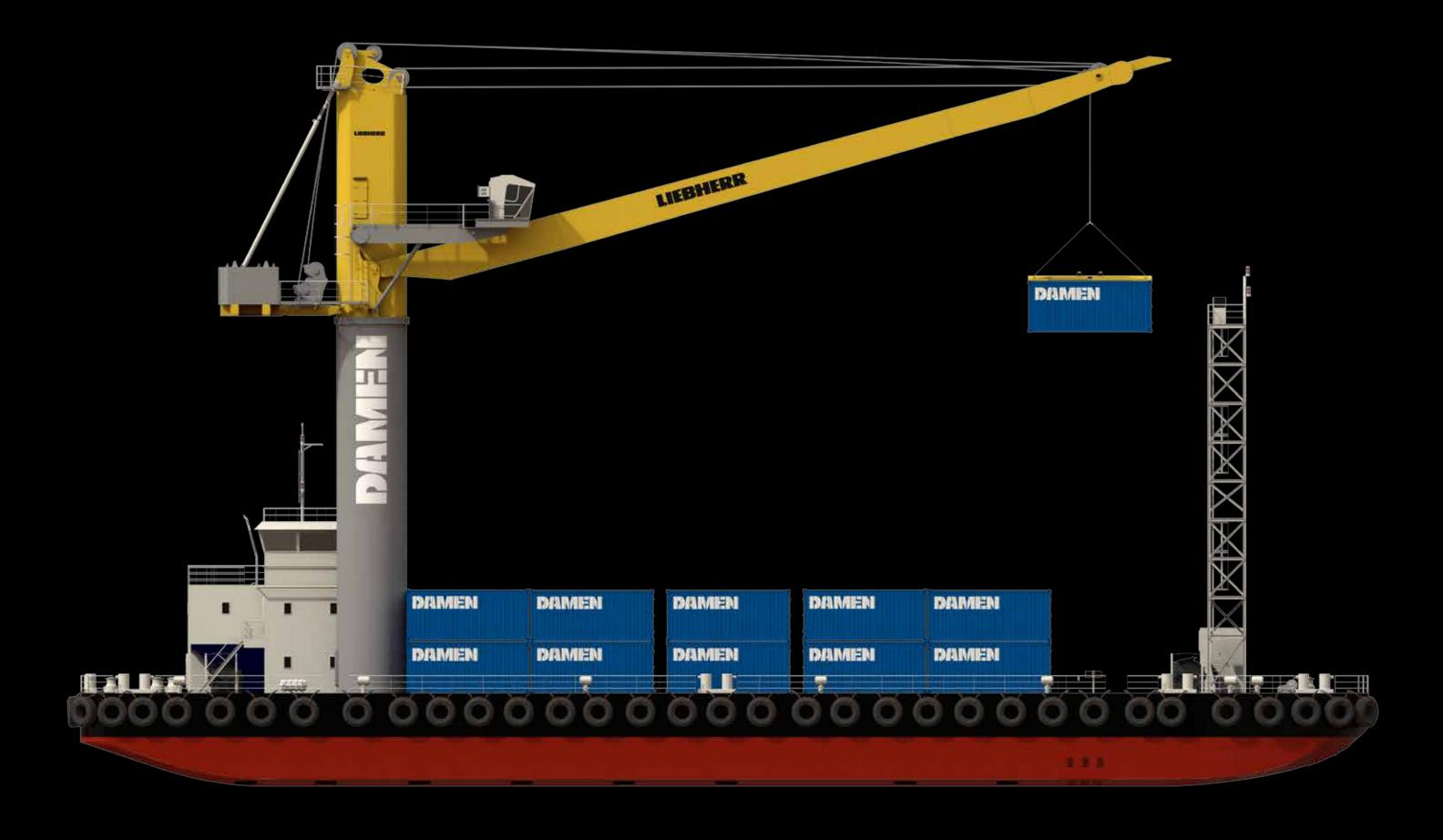
Bulk, breakbulk, containers and project cargo: a multipurpose powerpack for sea ports as well as inland ports. Inland ports can optimize the use of their infrastructure be-

Inland ports can optimize the use of their infrastructure because one device will serve more quays -when the clearance is available- and is capable for the complete range of goods handling. The size of the pontoon can be chosen individually as well as all further possible options and extras.

www.damen.com

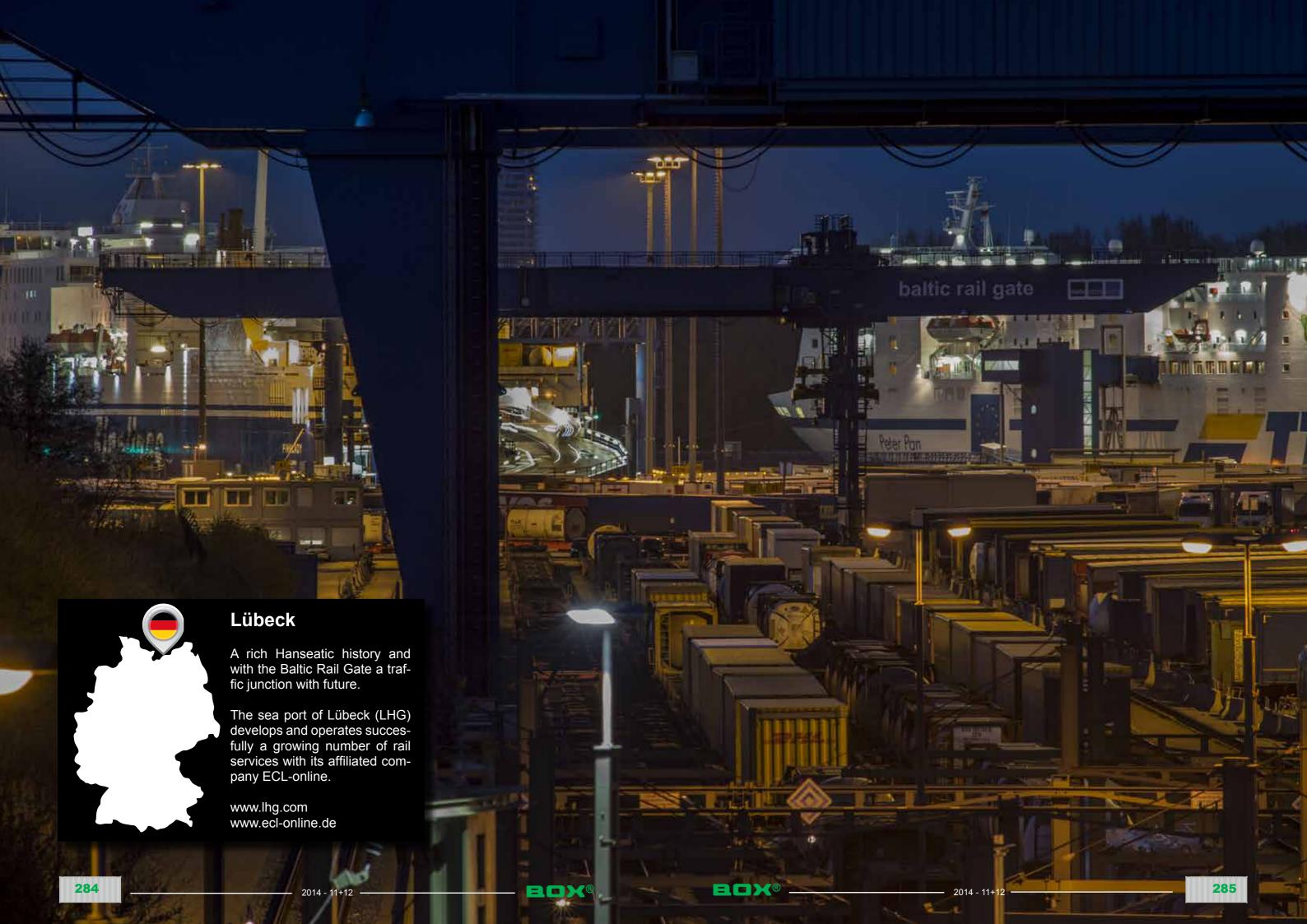
















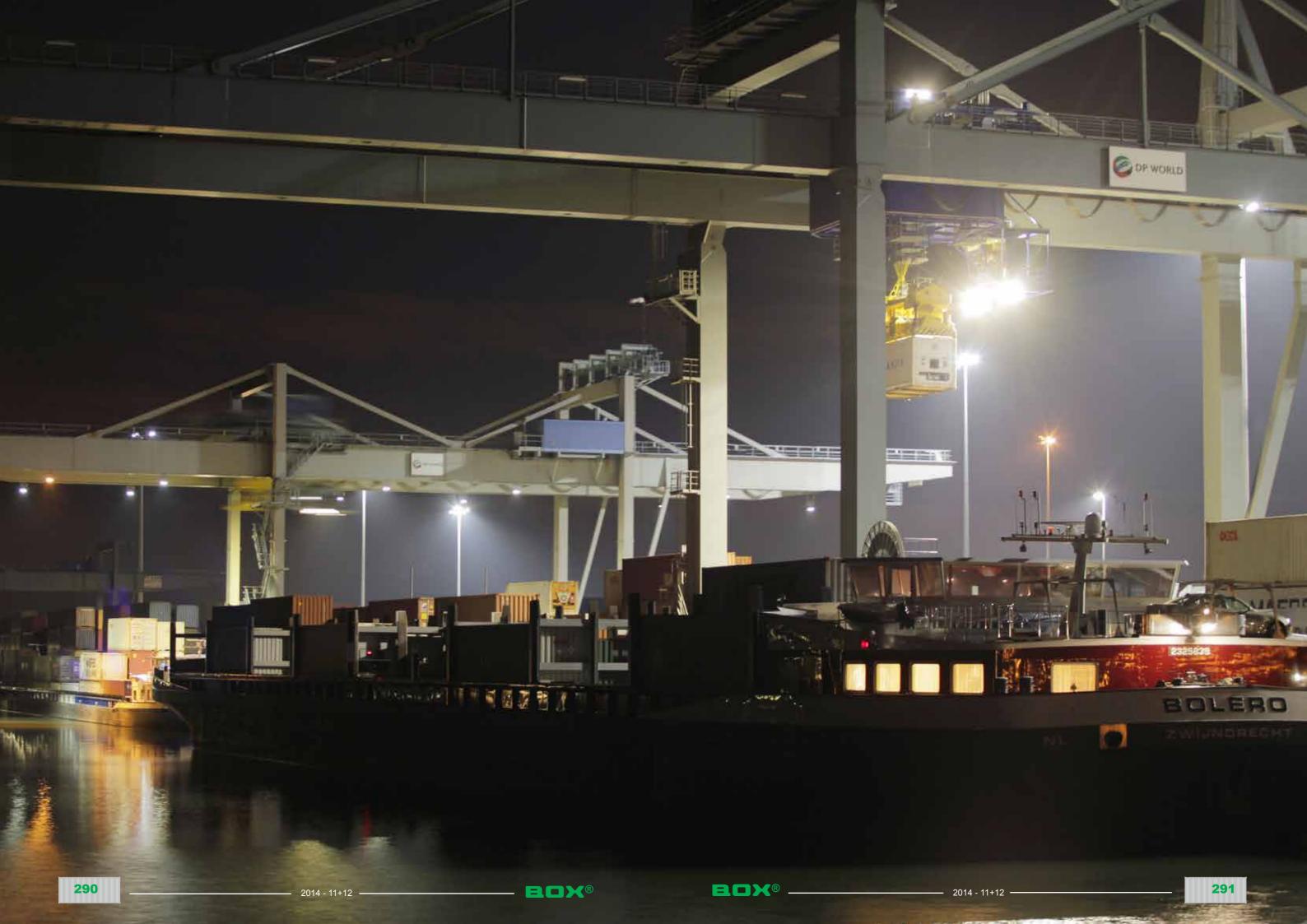
### Mainz

This impressive façade along the Rhine in Mainz belongs to the trimodal terminal of Frankenbach in Mainz. Connected by barge to the Northsea ports, inland ports upstream and the Bavarian terminal in Aschaffenburg. Of the several railconnections the link with Homburg/Saar was the most recently set up service.

www.frankenbach.com







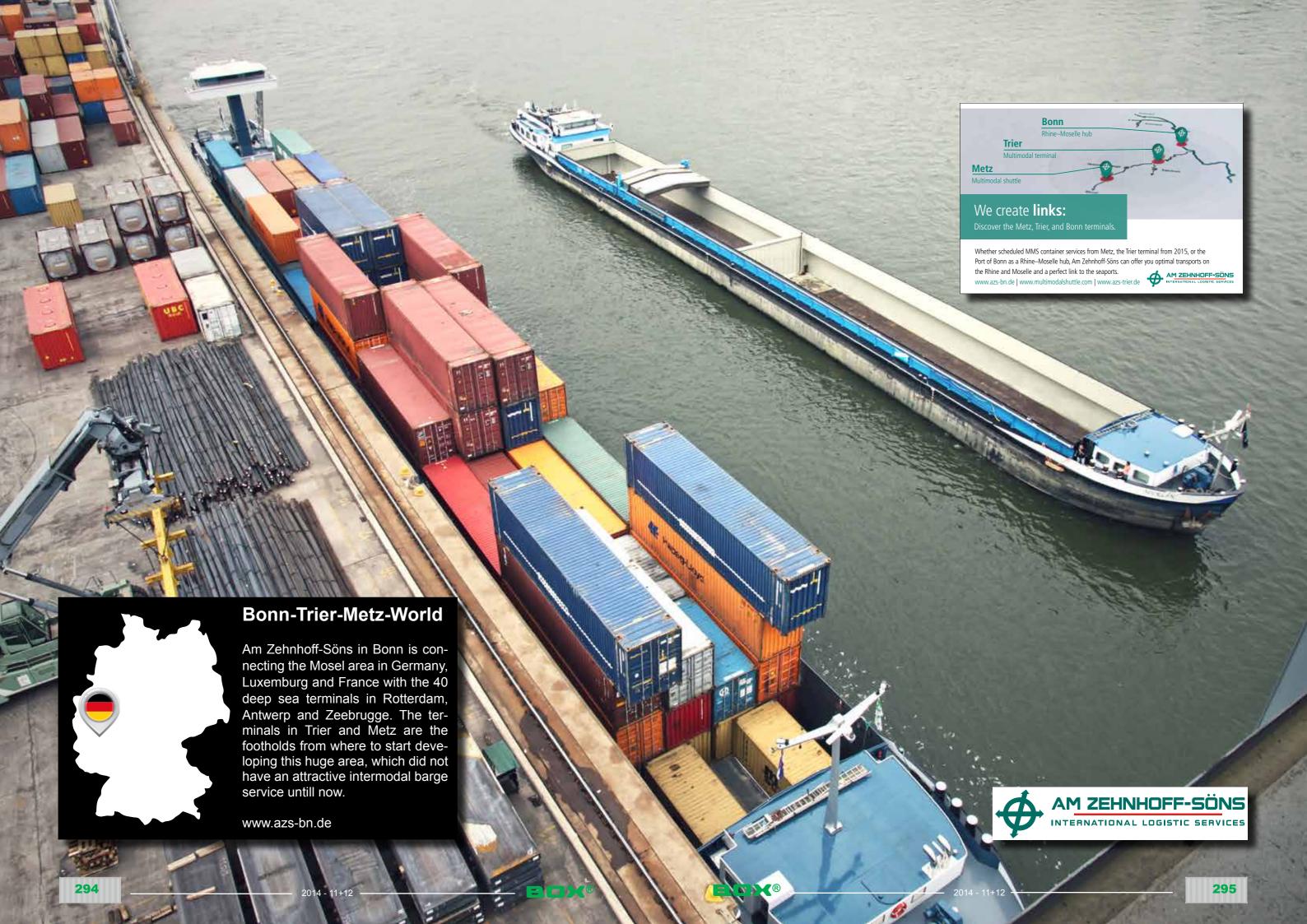
## Standard software for intermodal transport & logistics

www.ixolution.com

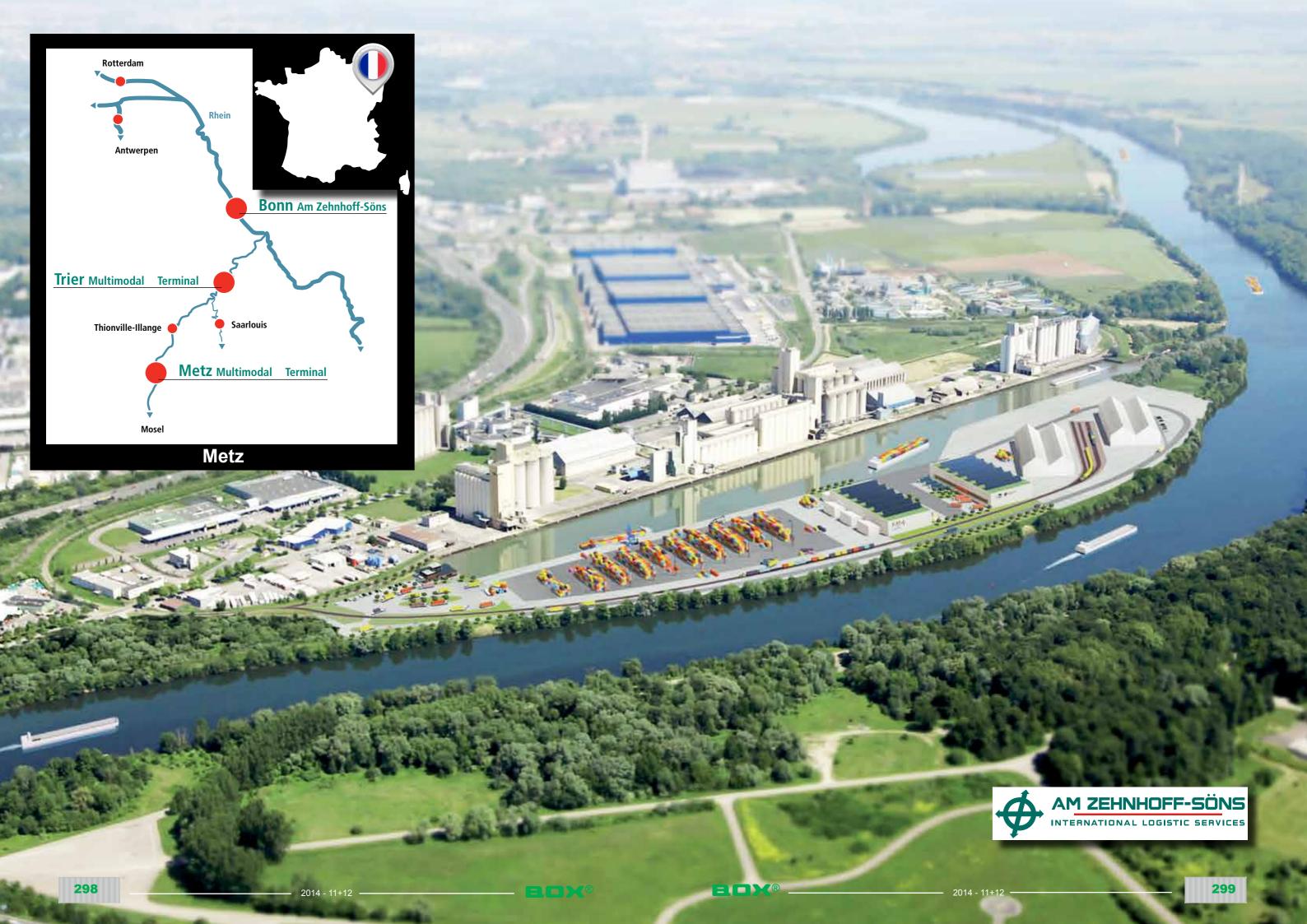


Zwijndrecht [NL] & Nettetal-Kaldenkirchen [D]























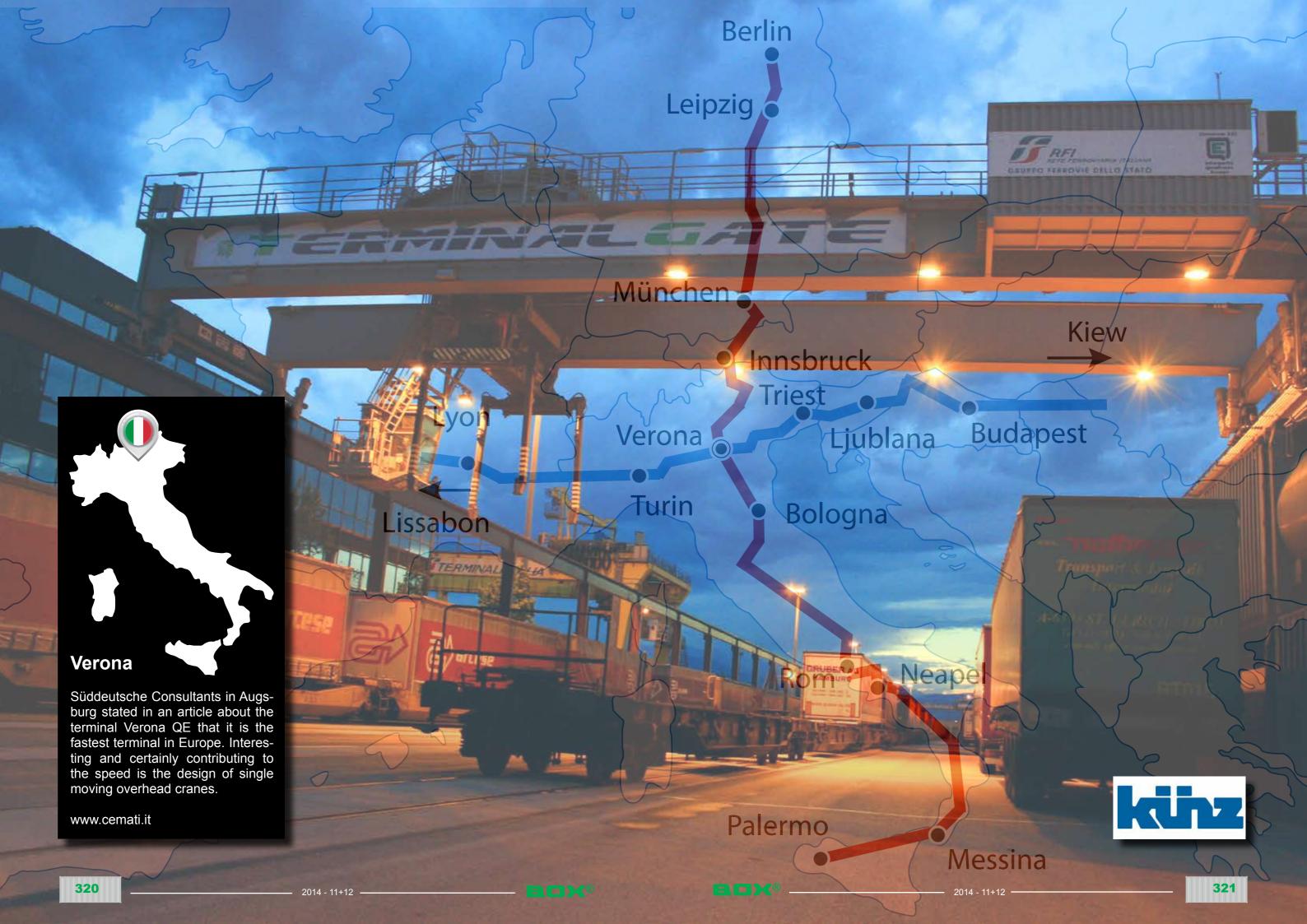






















## Worldwide container services

HOLLAND - BELGIUM - GERMANY - FRANCE

## CONTAINERS FOR SALE ALL OVER EUROPE



- Handling & storage
- **Barge connected**
- **Repair & modification**
- Reefers including pti facilities
- Flexitanks & linerbags
- Sales & rental
- Service vans for repairs on site
- **Decontamination (R40) reefers**





Eemhavenweg 123, Rotterdam

Phone: +31 10 42 91 800 Direct contact: Ad van Hoff

+31 65 24 73 202

E-mail: sales@progecoholland.nl

Internet: www.progecoholland.com

THE DEPOT NETWORK







