

THE OLDEST MEANS OF TRANSPORT

TOWARDS 2020 INLAND SHIPPING

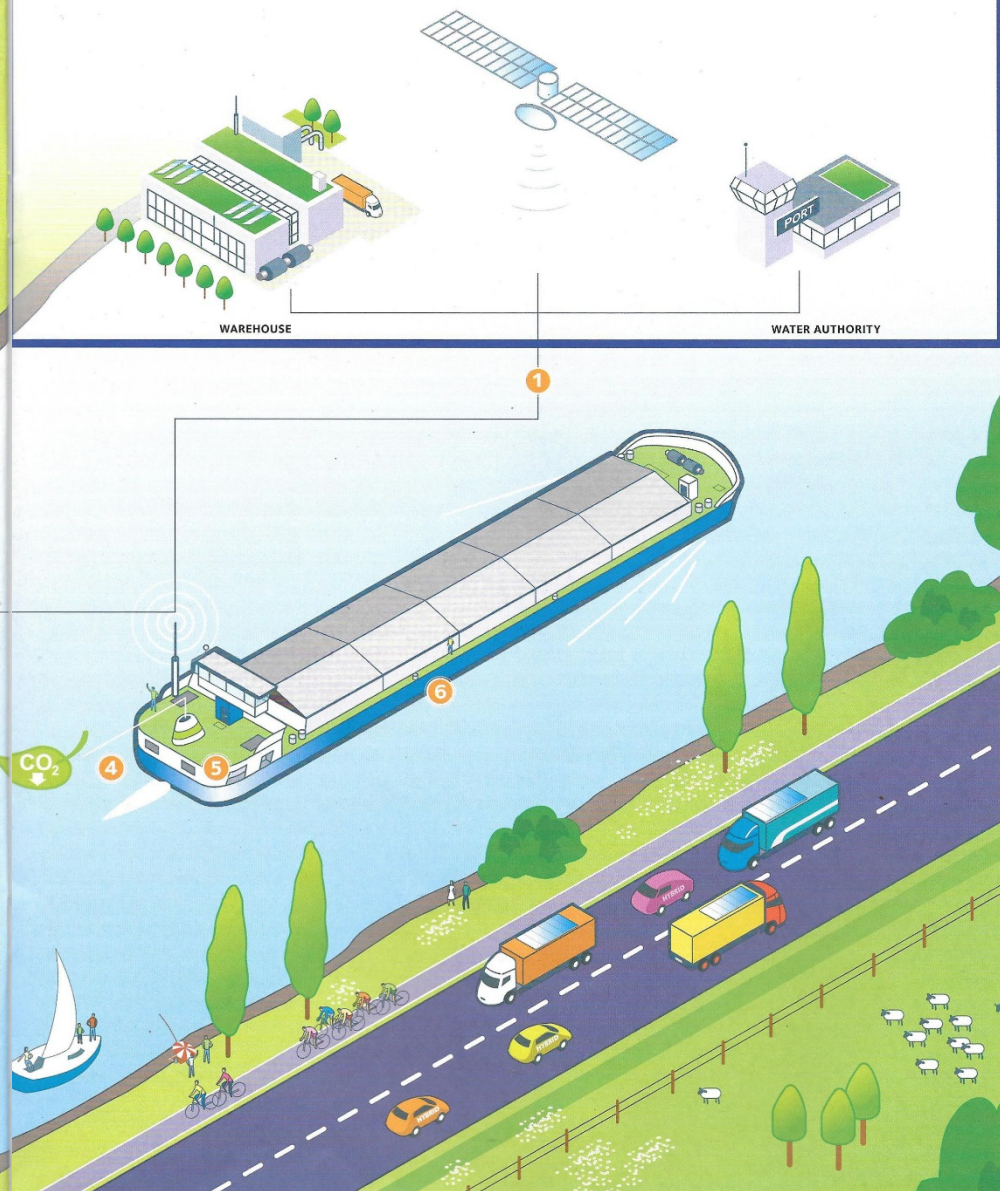
- 1 **Information technology:** River Information Services (RIS) ensure more efficient and reliable services by allowing:
 - In-advance and real-time communication with port and waterway authorities and logistics players
 - 100% reliable operations through efficient lock management
 - Paperless and streamlined administrative procedures
 - On-line fuel tracking to save fuel and cut greenhouse gases
 - Tracking and tracing for more safety, especially when transporting dangerous goods
- 2 **Fleet diversity:** Small ships are real water trucks operating along short distances while bigger ships can take more cargo further using less fuel.
- 3 **Versatile and innovative:** Cost-efficient solutions with automated loading machines onboard mean fast moving consumer goods can be transported even when there is no transshipment facility available.
- 4 **Clean fuel:** Working towards zero-emissions, using hybrid, electric and hydrogen solutions from renewable energy sources, producing no noise.
- 5 **Good working conditions:** Modern ships provide a good quality of life for sailors, with comfortable working and living space.
- 6 **Vessel design:** Nanotechnology increasingly introduces the use of composites which provide great mechanical strength in relatively light materials, and also more flexibility to current steel hulls and parts reducing energy consumption.

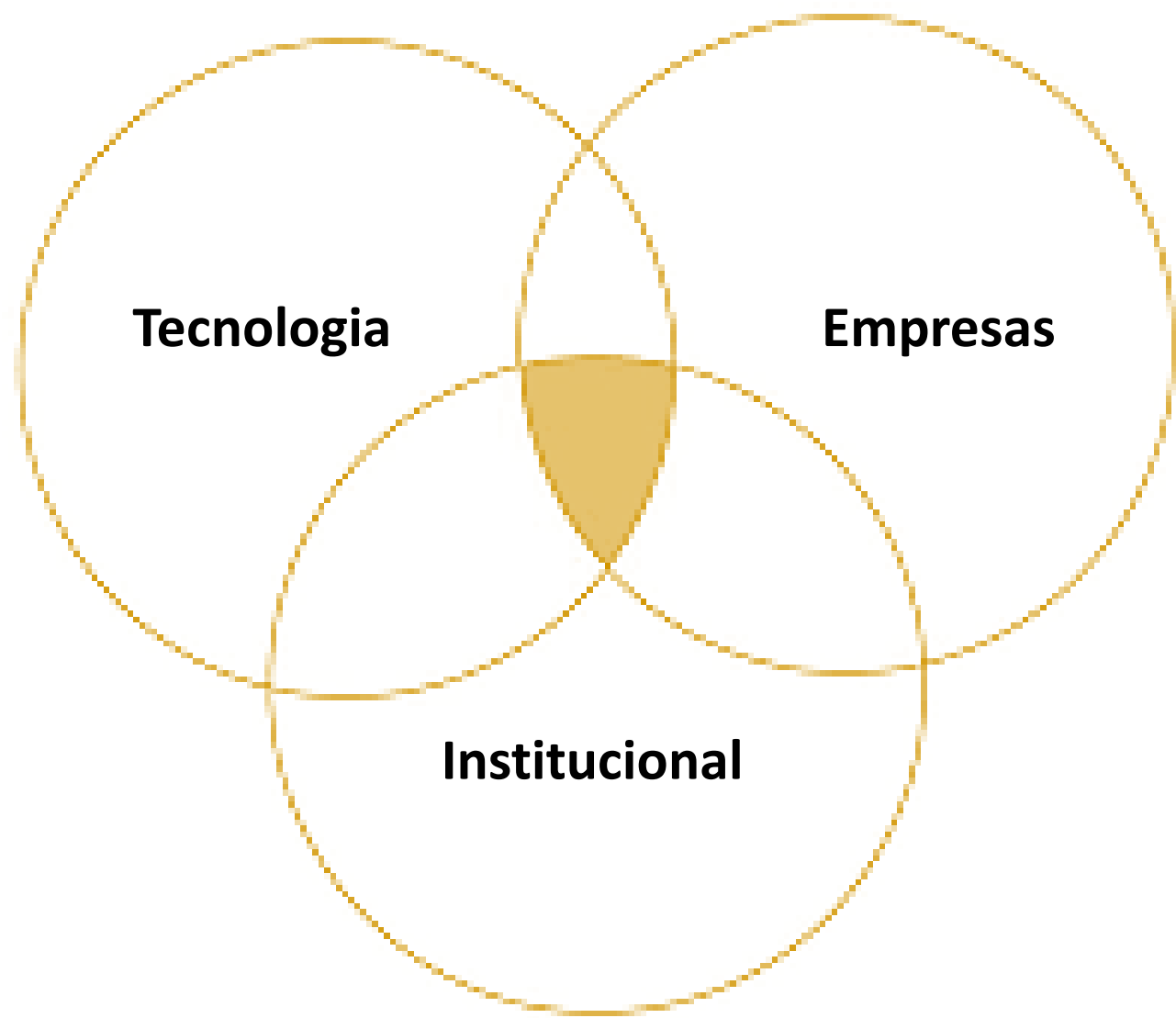
IN THE FUTURE
INLAND SHIPPING WILL BE
AN EVEN BETTER CHOICE
AS IT IS COST-EFFICIENT,
SAFE, QUIET AND HAS
LOW OR NO CARBON
EMISSIONS!

© INE

WITH THE NEWEST TECHNOLOGY

RIS or River Information Services: an intelligent transport system that connects ship to shore

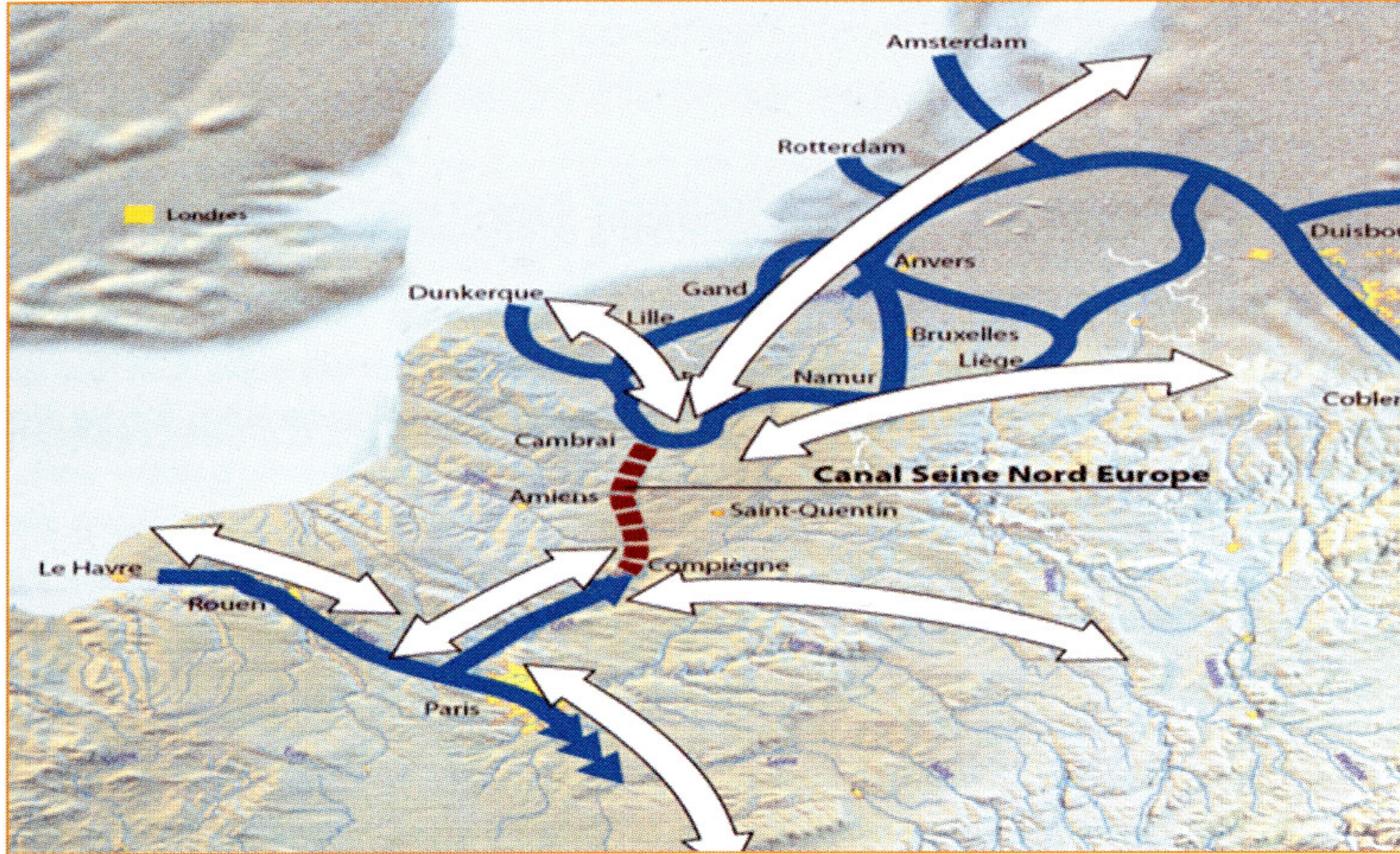




Foco

Estados impactados pela criação do sistema de transposição Tennessee – Tombigbee Waterway





La liaison Seine-Escaut et la zone d'effet du projet.

**Plano integrado de desenvolvimento regional e log ística de
transportes França/Bélgica/Holanda/Alemanha**





La commission Seine-Escaut est créée

La France, la Flandre et la Wallonie ont créé la Conférence intergouvernementale Seine-Escaut. Elle sera chargée de coordonner le projet de liaison fluviale européenne à grand gabarit Seine-Escaut, qui reliera le bassin de la Seine au réseau fluvial nord-européen.

Koen Heinen

La France, la Flandre et la Wallonie travaillent depuis 2003 en étroite partenariat pour la réalisation de cette liaison fluviale.

La Commission Intergouvernementale (CIG) résulte de l'application de l'accord ministériel signé le 20 juillet 2007 par la France, la Flandre, la Wallonie et les Pays-Bas.

Elle succède au Comité Seine-Escaut mis en place en 2005 et a pour objet de "suivre, au nom des Gouvernements de la République française, de la Région flamande et de la Région wallonne, l'ensemble des questions liées à la préparation du Projet Seine-Escaut".

Durant sa première réunion, la CIG a décidé de mettre en place un Groupement Européen d'Intérêt Economique dans le but de

LE RÉSEAU SEINE-ESCAUT



■ Projet transfrontalier de la liaison Seine-Escaut
■ Autres projets sur le réseau

- 1 Haut Escaut: modernisation des barrages de Kain et d'Hérinnes et suppression de la restriction du gabarit au Pont des Trouis à Tournai (classe Va)
- 2 Adaptation de la Lys et du canal de dérivation de la Lys et agrandissement du canal autour de Gand en classe Vb
- 3 Réaménagement du canal de Gand à Zeebrugge en classe Vb
- 4 Adaptation de la section frontalière de la Lys entre Deûlemont et Wervicq en classe Vb
- 5 Doublement de l'écluse de Quesnoy-sur-Deûle, le 2e sas étant au gabarit de la classe Vb
- 6 Relèvement des ponts du réseau Nord Pas de Calais et approfondissement de la Deûle et de l'Escaut
- 7 Études du réaménagement de la voie d'eau de Pommeroeul à la Sambre
- 8 Remise en navigabilité du canal de Pommeroeul à Condé
- 9 Construction du canal Seine-Nord Europe entre Compiègne et Aubencheul-au-Bac
- 10 Approfondissement de l'Oise entre Conflans-Sainte-Honorine et Compiègne, relèvement du pont de Mours et modernisation des barrages

faciliter la réalisation de la liaison et notamment les conditions d'harmonisation de la tarification et les conditions de gestion du trafic. Ce GEIE réunira les trois organisations chargées de la mise en œuvre de la liaison européenne, à savoir Voies navigables de France, la Direction des voies hydrauliques du Service Public de Walloniet et Waterwegen en Zeekanaal.

La CIG suivra également le dossier des réseaux transeuropéens de transport (RTE-T). La liaison

Seine-Escaut est en effet un des projets prioritaires des RTE-T et bénéficie à ce titre d'un soutien européen de 420 mio. d'EUR sur la période 2007-2013, dont 350 mio. d'EUR pour la France, 45 mio. d'EUR pour la Flandre et 25 mio. d'EUR pour la Wallonie.

La coordinatrice fluviale Karla Peys s'est félicitée de la création de la Commission intergouvernementale Seine-Escaut, soulignant qu'il s'agit d'une étape importante vers la réalisation du projet.

"En

maillant l'hinterland des ports français, belges mais aussi néerlandais, cette nouvelle liaison s'inscrit pleinement dans la politique européenne de transports et la prise en compte du maillage des réseaux trans-européens", a-t-elle déclaré.

■ www.wenz.be
www.vnf.fr
www.spw.wallonie.be

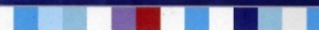
Como o mundo trata as suas Hidrovias

Just add water!



A CHANGING WORLD

JUST ADD WATER



FREIGHT

ON OUR WATERWAYS



THE ENVIRONMENTAL BENEFITS ARE CLEAR



To find out more about the environmental benefits of
waterway freight visit www.britishwaterways.co.uk/freight

Telephone enquires 01923 201120

FOR
FROM
UNIQUE

It's so simple...

Less road miles =

Less cost

and

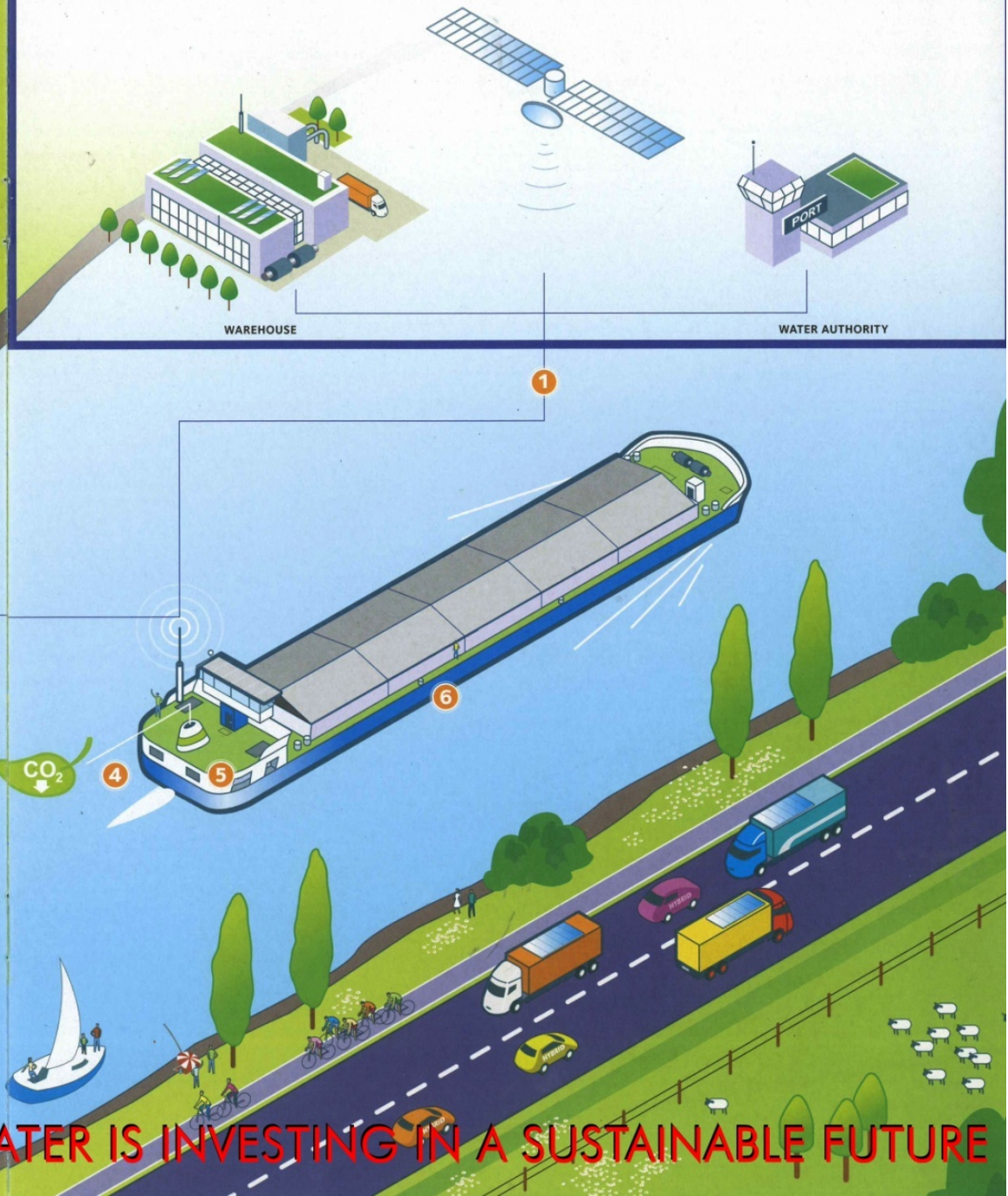
Less CO₂

TOWARDS 2020 INLAND SHIPPING

- 1 Information technology:** River Information Services (RIS) ensure more efficient and reliable services by allowing:
 - In-advance and real-time communication with port and waterway authorities and logistics players
 - 100% reliable operations through efficient lock management
 - Paperless and streamlined administrative procedures
 - On-line fuel tracking to save fuel and cut greenhouse gases
 - Tracking and tracing for more safety, especially when transporting dangerous goods
- 2 Fleet diversity:** Small ships are real water trucks operating along short distances while bigger ships can take more cargo further using less fuel.
- 3 Versatile and innovative:** Cost-efficient solutions with automated loading machines onboard mean fast moving consumer goods can be transported even when there is no transshipment facility available.
- 4 Clean fuel:** Working towards zero-emissions, using hybrid, electric and hydrogen solutions from renewable energy sources, producing no noise.
- 5 Good working conditions:** Modern ships provide a good quality of life for sailors, with comfortable working and living space.
- 6 Vessel design:** Nanotechnology increasingly introduces the use of composites which provide great mechanical strength in relatively light materials, and also more flexibility to current steel hulls and parts reducing energy consumption.

IN THE FUTURE
INLAND SHIPPING WILL BE
AN EVEN BETTER CHOICE
AS IT IS COST-EFFICIENT,
SAFE, QUIET AND HAS
LOW OR NO CARBON
EMISSIONS!

RIS or River Information Services: an intelligent transport system that connects ship to shore

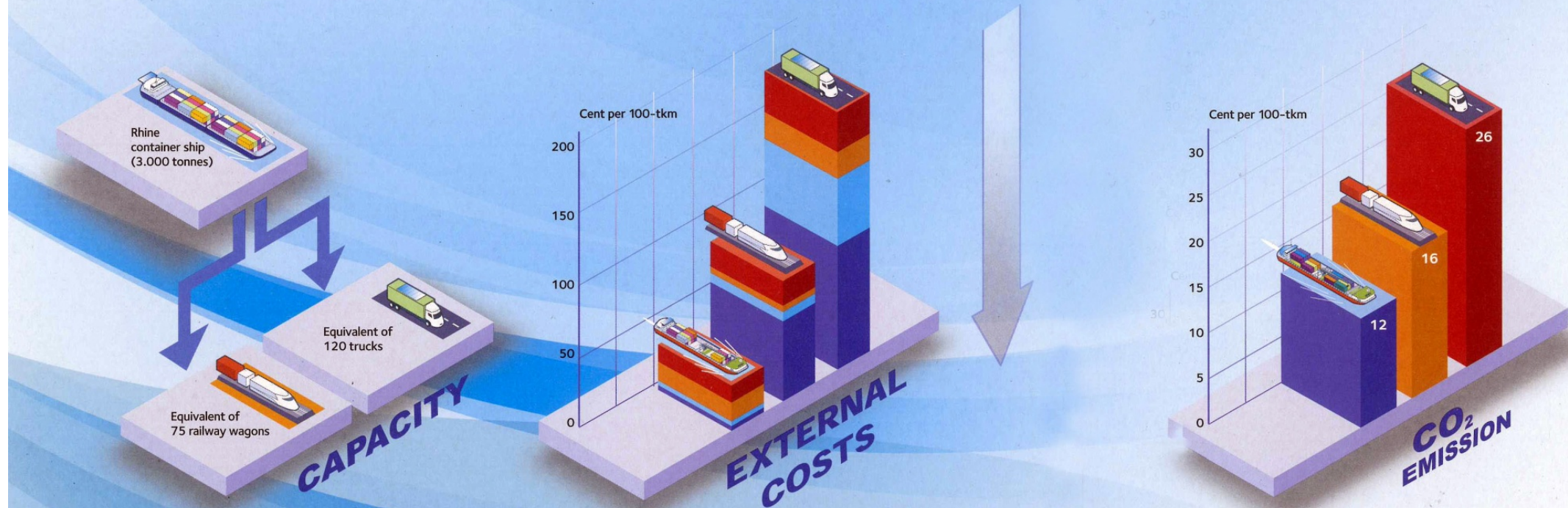


INVESTING IN TRANSPORT BY WATER IS INVESTING IN A SUSTAINABLE FUTURE

TODAY'S ACTIONS MAKE TOMORROW'S DIFFERENCE

INNOVATION FOR A GREEN ECONOMY

Forecasts predict that, despite the current slump, the demand for transport will pick up again and increase until 2020. Financial priorities should be innovation, clean propulsion, sustainable infrastructure, integration of smart networks and information systems. **Today's new inland shipping engines already save up to 30% on energy and CO₂.** It is clear that inland waterway transport is already an asset against global warming. By 2020, savings will have gone up significantly thanks to new propulsion solutions with the ambition to achieve zero emissions. That's the agenda of waterway transport and that's why it's a worthwhile investment.



Calculations have been done assuming full 40-foot containers. The maximum weight that a truck can carry is 25 tonnes. In reality, trucks often travel with less load than this, and containers often weigh less than 25 tonnes, depending on contents.

Source: via donau

GREENHOUSE GASES AIR POLLUTION ACCIDENTS NOISE

Inland shipping has low external costs when compared to other modalities. It compares especially favourably because of its low score on greenhouse gases, accidents and noise pollution. New fuels allow a dramatic drop in air pollution.

Source: PLANCO 2007

AIR POLLUTION FROM INLAND WATERWAY TRANSPORT WILL FALL BY 85% ONCE CLEAN FUEL IS AVAILABLE FOR INLAND WATERWAY TRANSPORT.

Carbon dioxide is the principal greenhouse gas. Because of its high capacity, inland shipping compares very favourably to other modalities.

Source: PLANCO 2007







„Wir mussten dieses 700-Tonnen-Bauteil über mehr als 600 Kilometer transportieren. Sehr riskant, bei Zurich fühlten wir uns jedoch gut abgesichert.“

Herbert Peters, Geschäftsführer Sasol-Huntsman, Moers (Deutschland)

Zurich **HelpPoint**
Integrierte Versicherungslösungen, sogar für höchst spezielle Projekte.

Wir konnten Sasol-Huntsman, einem der führenden europäischen Produzenten von Maleinsäureanhydrid, eine ganzheitliche Versicherungs- und Risikomanagementlösung anbieten. Genau das Richtige, wenn man 700 Tonnen schwere Bauteile quer durch Deutschland transportiert. Nachdem alle Sicherheitsvorkehrungen getroffen und sämtliche Transportrisiken abgesichert waren, konnten alle Beteiligten durchatmen. Ein Beispiel dafür, wie Zurich HelpPoint Unternehmen hilft, wenn es darauf ankommt. Erfahren Sie mehr auf www.zurich.com/risks

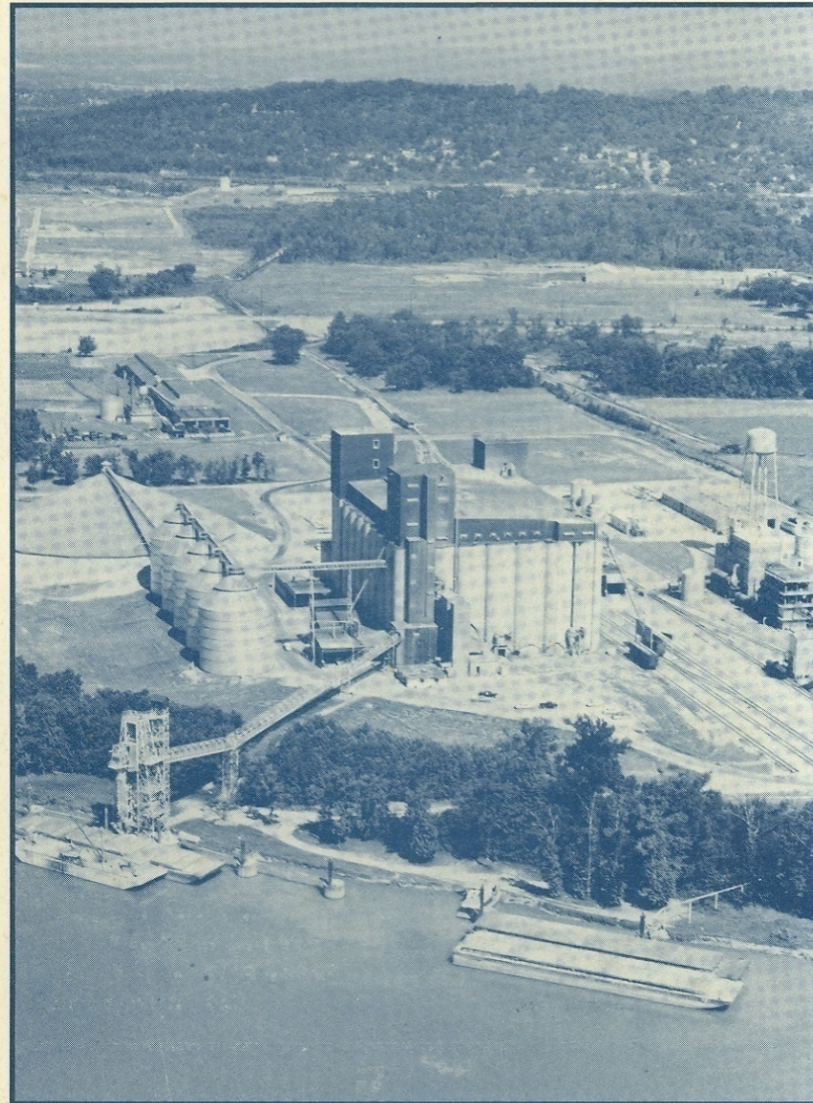
 **ZURICH**
Because change happenz.



DUTCH LOGISTICS INDUSTRY NEEDS INLAND NAVIGATION



River Traffic and Industrial Growth



VISITA TÉCNICA À CHINA

O Instituto de Engenharia traz para você a oportunidade de conhecer de perto a Usina Hidrelétrica de Três Gargantas, além de outras obras de Engenharia e atrações turísticas da China.



9 de abril de 2020



Para informações sobre passagens aéreas,
valores e formas de pagamento:
(11) 3292-9240 ou (11) 98149-5847
com Ricardo, Shih, Ana ou Sokan

Coordenação técnica: Wagner Ferreira
Informações no 11 - 9.84267936
jwagnerferreira@terra.com.br



**NÃO PERCA ESSA
OPORTUNIDADE
E GARANTA SEU
LUGAR NESSA
VIAGEM!**



**INSTITUTO DE
ENGENHARIA**

VISITA TÉCNICA À CHINA



**NÃO PERCA ESSA
OPORTUNIDADE
E GARANTA SEU
LUGAR NESTA
VIAGEM!**

9 de abril de 2020



Para informações sobre passagens aéreas, valores e formas
de pagamento: (11) 3292-9240 ou (11) 98149-5847
com Ricardo, Shih, Ana ou Sokan

Coordenação técnica: Wagner Ferreira
Informações no 11 - 9.84267936
jwagnerferreira@terra.com.br



**INSTITUTO DE
ENGENHARIA**