



Logistics of the Future

Tomorrow will definitely be different!

Erik Wirsing | VP Global Innovation   

w3w /// savers.gossip.drones

w3w /// smiling.always.seating

A woman wearing augmented reality glasses is shown interacting with a futuristic digital interface. The interface displays various data visualizations, including a circular chart and a radar chart, which she is pointing at with her finger. The background is a blurred cityscape.

#hungryforinnovation



**Until we can beam goods and people,
we'll still have to store and ship them.
The question is,
What to do in the meantime?**

150 years ago, we were absolute beginners.
And we still are today.

1872 - 1952



1952-2002



2002-2012



2012 - 2020



2020 - 2022



DB Schenker is one of the Largest Global Logistics Companies

SO WHAT?



~1872
founded



~13
countries



~1,000
locations



~76.000
employees



~27 billion
sales



~700.000
clients

Current Challenges in Logistics (VUCA)



TIME-TO-MARKET

**CHANGING
BUSINESS MODELS**

STABLE, AGILE AND
CYBER-SECURE IT OPERATIONS
& SERVICES

MARKET CONSOLIDATION

VOLATILITY

PANDEMICS

INCREASING COSTS

DIGITALIZATION

LACK OF PERSONNEL

DIESEL DRIVING BAN

SUSTAINABILITY

CUSTOMER-CENTRICITY

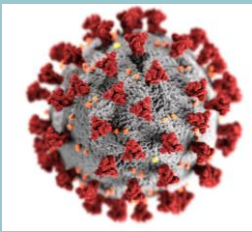
NEW MARKET PLAYERS

AUTONOMOUS DRIVING

„Disruptions“ will be the new normal

Unprecedented disruption in SC across the world

Dec 19



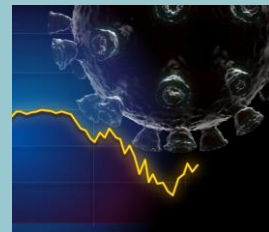
Covid 19

Oct 20



Vaccines

Nov 20



Industry
Recovery

Dec 20



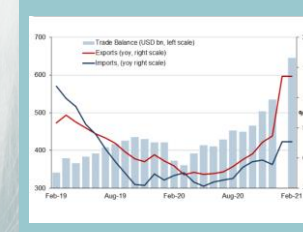
Container
Shortage

Jan 21



Maintenance

Feb 21



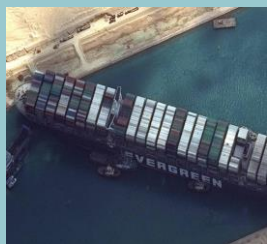
Surge in
China

Feb 21



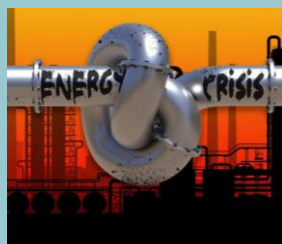
Texas Winter
Storm

Mar 21



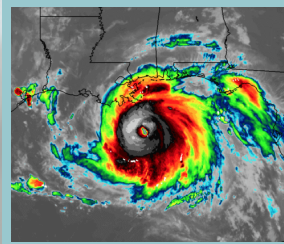
Suez Canal
blockage

Aug 21



Energy Crisis

Aug 21



Ida / Nicolas

Sep 21



China-USA
Tension

Sep 21



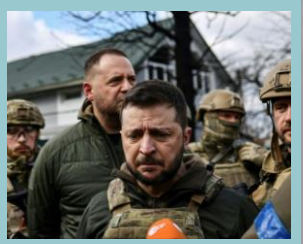
Global SC
issue

Oct 21



Oil / Gas
Surge

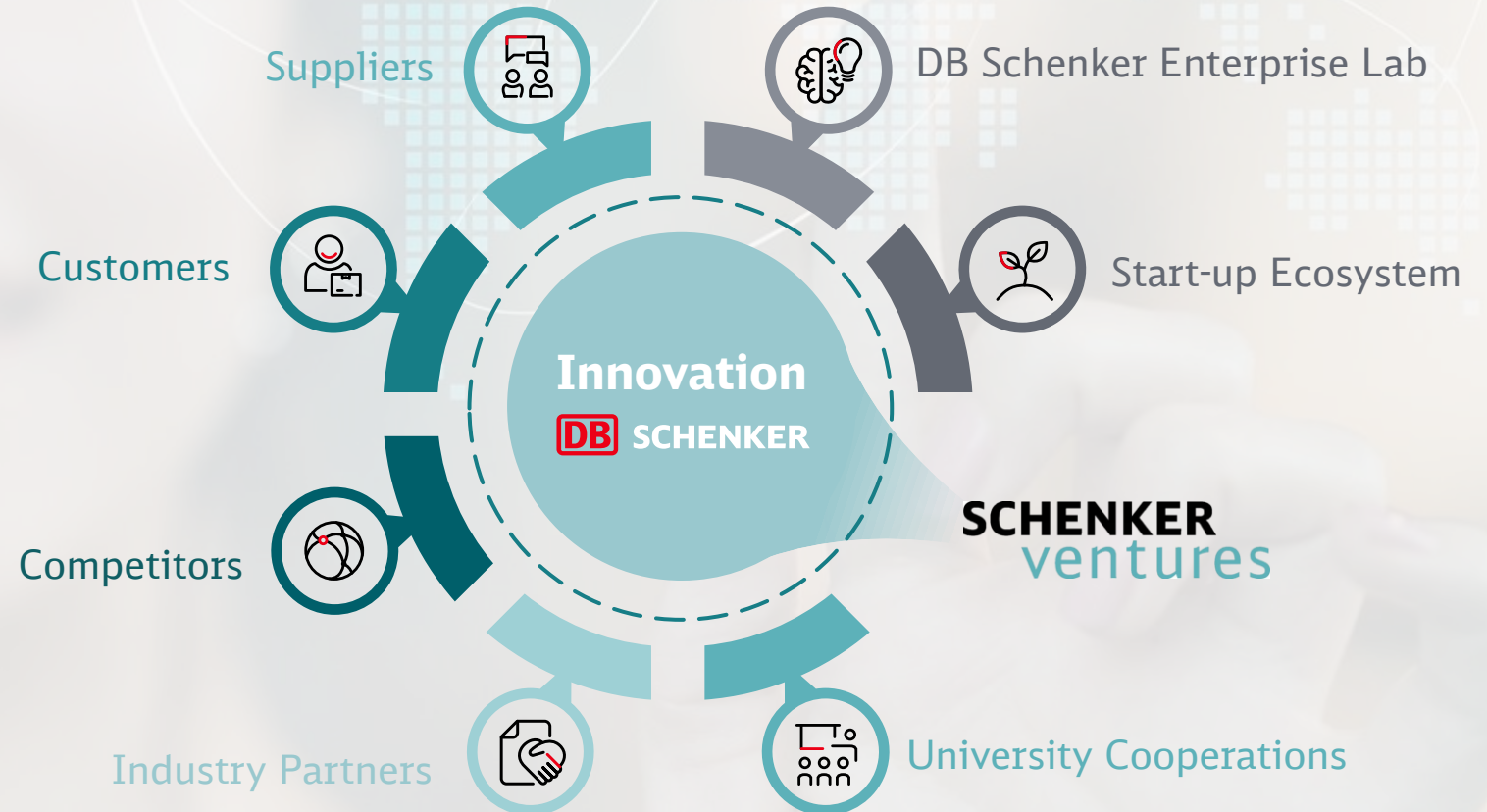
Feb 22



Ukraine war

Innovation: Collaboration is key

Our **global, interdisciplinary network** is essential for the development of future topics.



How we Shape the Future of Logistics With Startups

Cooperation Highlights With Startups

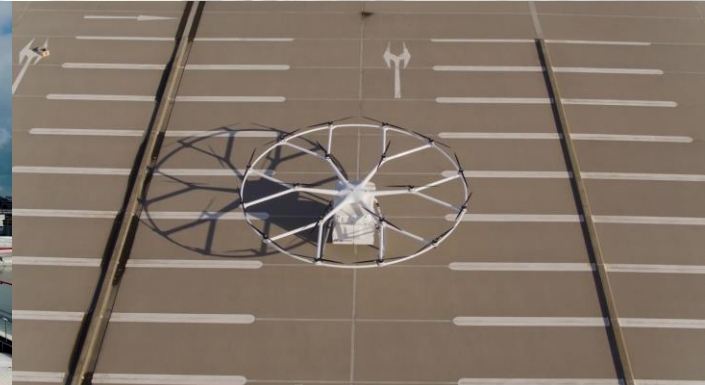
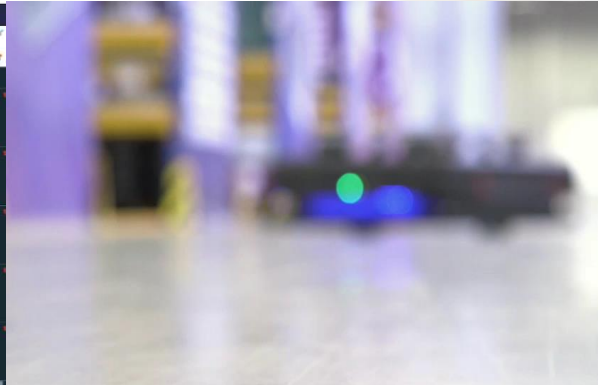
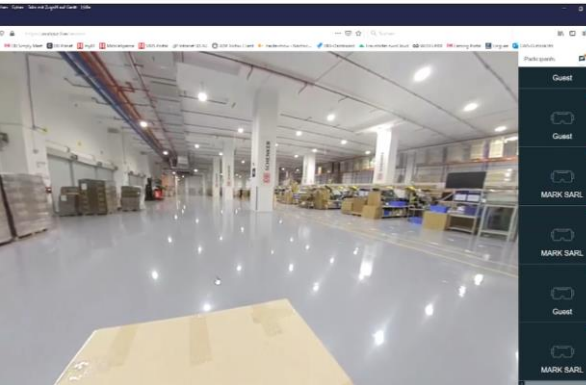


AVATOUR

GIDEON
BROTHERS

FERNRIDE

VOLOCOPTER



INHOUSE

Gideon Brothers – Autonomous mobile robots (AMR): Gideon Brothers specializes in flexible automation of horizontal and vertical material handling processes for logistics, warehousing, manufacturing, and retail businesses.



YARD MANAGEMENT

KAMAG – “Autonomous Wiesel”
Safely - Autonom. & e-vehicle to shunt trailer on a terminal



Fernride – Teleoperated shunter



ON THE ROAD

Platooning



EINRIDE





Pilot Projects

Impressions & Highlights



Fernride Pilot Project
Remote truck driving



Avatour Cooperation
virtual warehouse visits



iHub Pilot Project



Cargo Bikes



VoloDrone First
Public Flight in Hamburg



Initiation of the **Volta**
Truck Cooperation



Digital VR Trainings
roll out based on a Lab Project




SafeZone Pilot Project
Covid19 protection

Testing **Exoskeleton**
across all DBS
divisions





Gideon Brothers
Investment

Case Examples: Venture Building



Pave your way to net-zero supply chains today.

Analyze your supply chains, baseline your emissions and benefit from automated recommendations to get your CO2-Emissions under control



Reduce your pain of spare parts management -
On-Demand Production

Share, Identify, Store.

DEVELOP ECONOMIC 3D-PRINTING
PARTS WITH US.

Store, Evaluate, Order.

ORDER YOUR PARTS FROM YOUR
DIGITAL WAREHOUSE.

Order, Relax, Receive.

PRODUCE PARTS GLOBALLY.

Road to Climate Neutrality

13

CLIMATE
ACTION



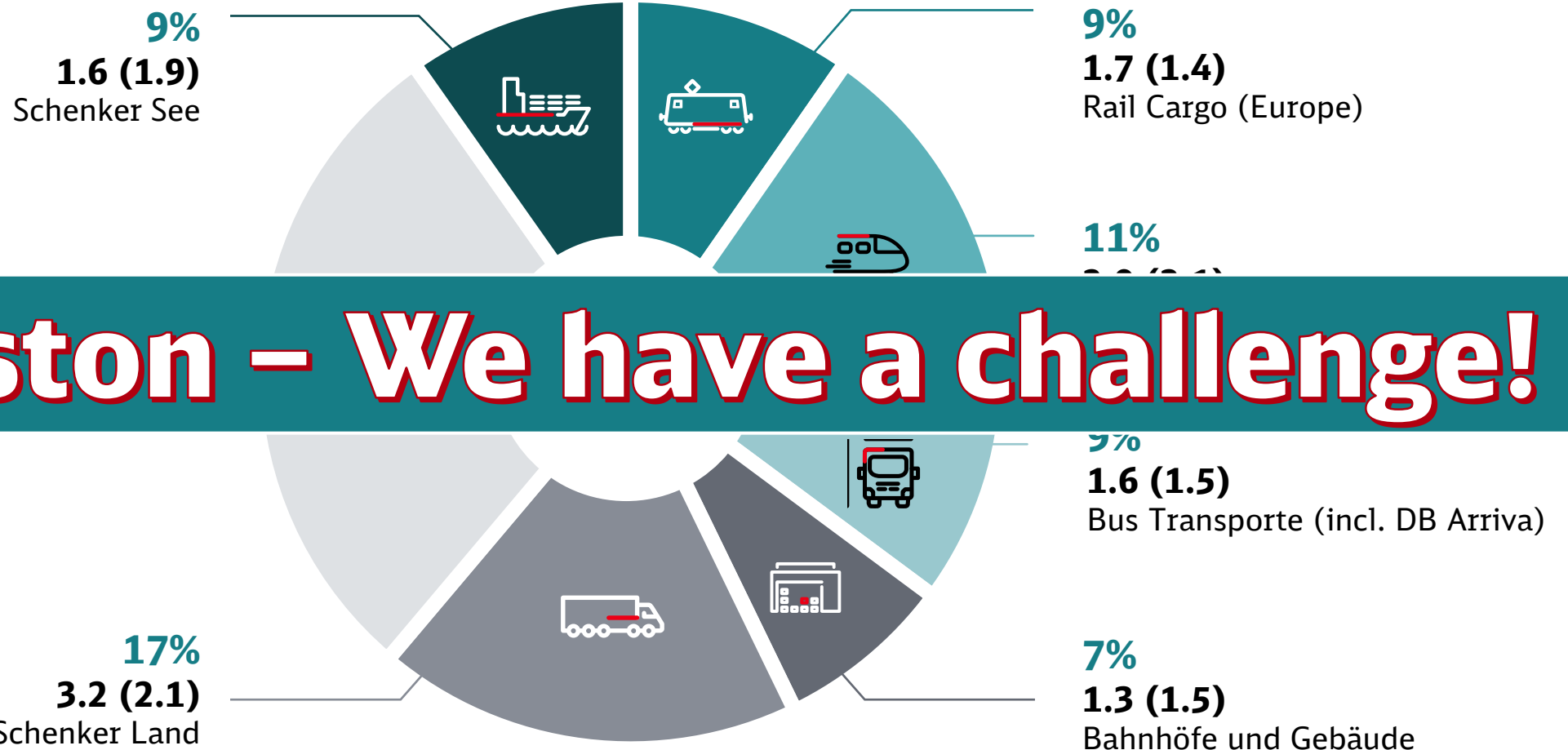
Driving Climate Action

Photography: Copyright Deutsche Bahn AG / Volker Emersleben

Advancing climate protection measures

The Carbon Footprint of the DB Group 2021 (2020)

Shares in million tons CO₂e WTW
Scope 1-3



Nachhaltigkeit ist Bestandteil unserer DNA

Seit Jahren!



What's next?

Digitalization & Mega Trends

Mobility/ Urbanization

Automation:
autonomous trucks,
AGVs, robotics, drones,
autonomous last mile
delivery solutions

**Remote controlled
mobility:** trucks,
forklifts

**Smart Urban Mobility/
Smart city concept:**
Last mile solutions,
drones/UAVs, cargo
bikes

Sustainability/ New Ecology

CO2 neutral: eTrucks,
hydrogen trucks, cargo
bikes, zero emission
City Hubs

Zero Waste:
Sustainable packaging,
CSR initiatives

Circular Economy:
Reverse logistics

Labor and Skills Transfor- mation

Shortages in blue
collar labour,
digital &
automation skills;
mobile working
environments, VR
trainings, etc.

Platform Economics

Digital
Marketplace,
eForwarder,
Logistics SaaS,
Transport
Management
solutions,
Blockchain

New Technologies/ New Business Models

(Big) Data Analytics:
vSCM, video analytics,
AI, IoT, visibility, 5G,
Blockchain

**Visibility/Predictive
Analytics:** Route and
tour optimization,
Digital Twin, location
technologies

New Business Models:
3D Printing,
Connect2track,
eCommerce,
4PL, SaaS

Mega Projects

central, strategic,
large-scale building,
technology or
infrastructure project

More than 50 global
initiatives
> USD 10 BN
(gigaprojects) which are
in an early stage of
development

Change from **1:1** to
many:many (strategic
ecosystems are
required)

Megaproject | NEOM – “The Line”

Saudi Arabia

Started

Early Phase

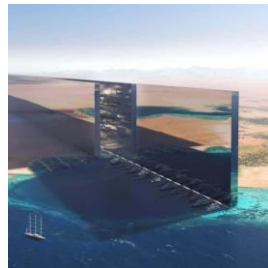
City



Estimated costs: USD 500 billion

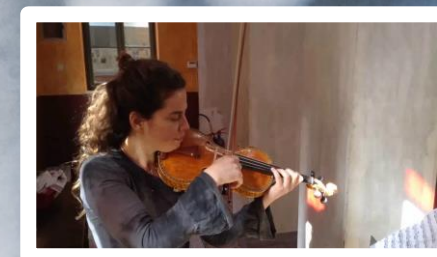
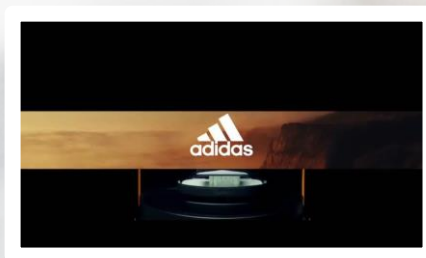
- Initiated by the government of Saudi Arabia, Neom is a **planned city with a connected technology park** in the northwest of the Kingdom near the Gulf of Aqaba and the Red Sea coast. The planned 26,500 km² area is located in the northwest of Saudi Arabia, in close proximity to Jordan and Egypt.
- The aim of the project is to make Saudi Arabia's economy less dependent on oil. It is part of the **“Vision 2030” economic reconstruction project**.
- The plan is for the project to be **completed by 2030**, with the first phase of the project ready by 2025.
- The project will cost **USD 500 billion**.
- “The Line”: 200 meters wide, 500 meters high, 170 km long

Source



3D Printing

Additive Manufacturing
much more than a
gadget.



Hyperloop

Moving people and goods with aircraft speed through a low-pressure tube by 2024.



Space Logistics

Galactic Opportunities for the Logistics Industry

Let's Imagine...

**Monit. CO2
consump-
tion via
satellite
data**

**What3Words
on the moon**

**Weather
prediction
for
transport
services**

**Highspeed
logistics
via space**

**Star
link for
communi-
cation**

**3D
Printing
on the
moon**

**Reusable
packaging
for space**

**150 years ago, we were
absolute beginners.
And we still are today.**



Erik Wirsing



Vice President
Global Innovation
DB Schenker

Tel.: +49 69 24744 26 50
Mobile: +49 160 974 600 99
erik.wirsing@dbschenker.com



always stay
#hungryforinnovation