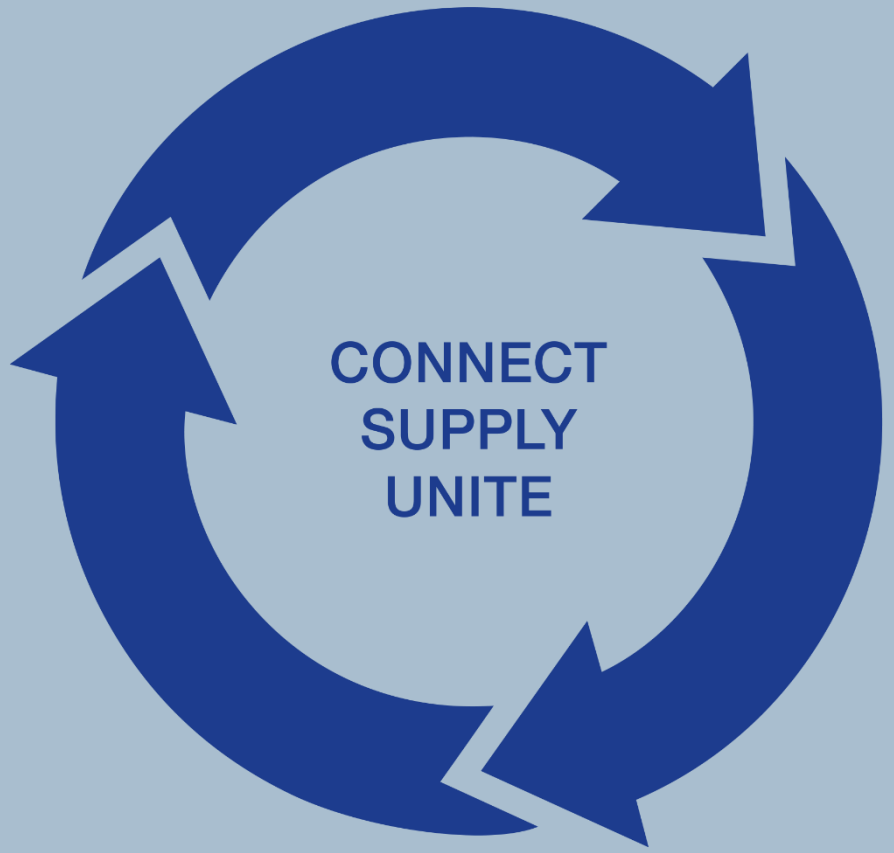



# *Balancing $CO_2$-emissions for the Ennshafen*

# *A practical example of how to implement CSRD in an inland port on the Danube*

**March 26th, 2025 / DANUBE COMMISSION**

**Expert Meeting on Development of Ports and Port Operations**

Werner Auer, Ennshafen OÖ GmbH

www.ennshafen.at / w.auer@ennshafen.at

# Joint Statement of the Danube Port Authorities and Ports Stakeholders (2023)

- Port authorities/administrations are **required to take an active role** (the lead) for both the greening of the port authority/administration and the greening of the entire port area. They have to play an important **role in coordinating** activities and ensure high stakeholder participation.
- The proposed Statement will provide a platform for cooperation among ports in the Danube Region and contribute to the creation of a project pipeline that will feed into the European Union's funding programs to **support the sustainable and smart development of inland waterway transport, climate change mitigation and adaptation, energy transition** and circular economy.

*The undersigning public and private port stakeholders declare that they:*

- *….*
- *strive for **environmentally, socially and economically sustainable port development** and port operations;*
- *pursue **concrete activities to reduce greenhouse gas emissions** from port operations by at least 55% by 2030, to reach net zero carbon emissions by 2050 and to improve the overall environmental performances of ports in the Danube region;*
- *these activities include the following measures:*
  - *identify, assess and monitor the **environmental impact** of port operations (air, water quality, waste, noise, dust, sediments);*
  - *develop and implement **Environmental and Sustainable Management Systems** (ESMS);*
  - ***identify and implement** new, environmentally friendly and sustainable **solutions** that support the increase of energy efficiency and the transition to the use, generation and distribution of renewable energy and to zero-emission port operations;*
  - *initiate/participate in the development of **strategies, action plans and implementation projects** aimed at reducing greenhouse gas emissions and achieving sustainability goals;*
  - ***facilitate** the implementation of alternative and renewable fuels **infrastructure**;*
  - *facilitate the **exchange of know-how** and other **cooperation** activities between ports and engage in cross-sectoral cooperation, research and development initiatives and projects to promote the greening of port development and operations;*
  - *….*

*>>> … not only talking and talking and talking - just do it !*

VERBINDEN
VERSORGEN
VEREINEN

ENNSHAFEN port

- the newest public port in Austria including two business parks
- transport hub for goods and commodities in international logistics and for local businesses
- Public-Private-Partnership: Infrastructure for transshipping und manufacturing companies
- ENNSHAFEN port: three companies – one unit


We **connect** the region to Europe.
We **supply** to people and businesses.
We **unite** expertise.

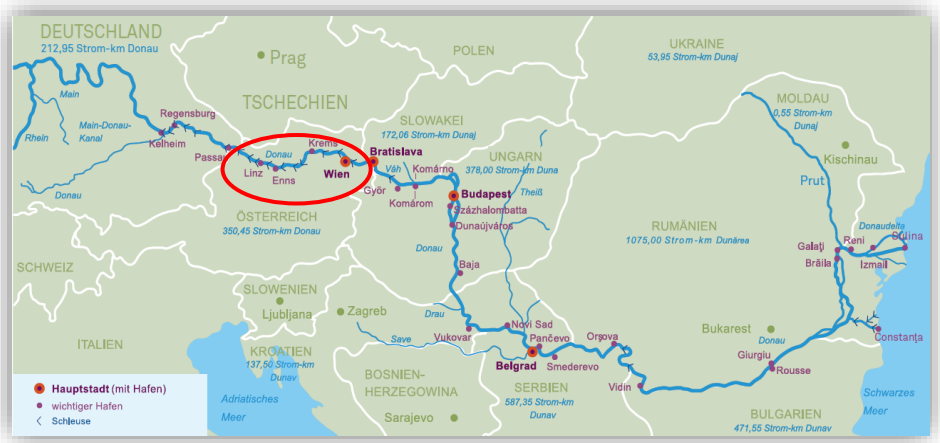
# Ennshafen

PPP – Public Private Partnership
3 companies (OÖ+NÖ) – 1 unit
EHOÖ: 7 employees

- TEN-T core node on the Rhine-Danube-Corridor
- total area of 3,530,000 sqm
- quaylength of 2.5 km with direct access to the railway system
- feeder lines with 38 km track length
- full service for transshipment by settled companies & partners
- leading 3-modal container terminal
- logistic hub including two business parks
- about 60 companies with approx. 2,500 employees

VERBINDEN
VERSORGEN
VEREINEN

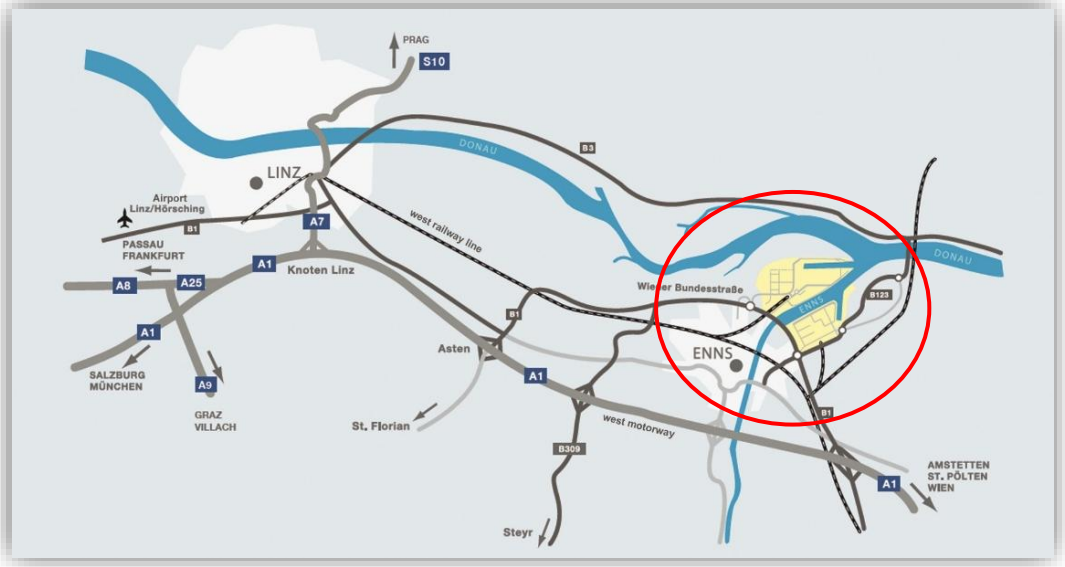
# Waterway Danube & Austria & Ennshafen




Source: viadonau

- second longest river of Europe – **2,845 km** length
- 10 riparian countries – 18 locks
- Austrian sector: 351 km
- Transport Volume in Austria: appr. 6 mio tonnes / year

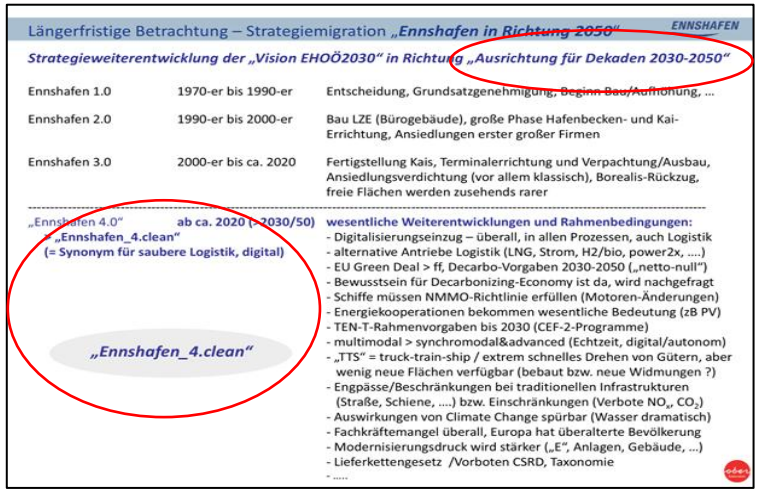
- capture area: appr. **200-300 km** for trucking of the first/last mile (average)
- rail distance to North Sea: appr. **900 km**



# Strategy document of Ennshafen Company (overview)

## Strategy

- yearly review (since 2017)
  - $CO_2$ is big headline
  - ➢ „Ennshafen_4.clean“


Längerfristige Betrachtung – Strategiemigration „*Ennshafen in Richtung 2050*“

ENNSHAFEN

*Strategieweiterentwicklung der „Vision EHOÖ2030“ in Richtung „Ausrichtung für Dekaden 2030-2050“*

| | | |
|---|---|---|
| Ennshafen 1.0 | 1970-er bis 1990-er | Entscheidung, Grundsatzgenehmigung, Beginn Bau/Aufhöhung, … |
| Ennshafen 2.0 | 1990-er bis 2000-er | Bau LZE (Bürogebäude), große Phase Hafenbecken- und Kai-Errichtung, Ansiedlungen erster großer Firmen |
| Ennshafen 3.0 | 2000-er bis ca. 2020 | Fertigstellung Kais, Terminalerrichtung und Verpachtung/Ausbau, Ansiedlungsverdichtung (vor allem klassisch), Borealis-Rückzug, freie Flächen werden zusehends rarer |
| „Ennshafen 4.0“ „Ennshafen_4.clean“ (= Synonym für saubere Logistik, digital) | ab ca. 2020 (- 2030/50) | **wesentliche Weiterentwicklungen und Rahmenbedingungen:**<br>- Digitalisierungseinzug – überall, in allen Prozessen, auch Logistik<br>- alternative Antriebe Logistik (LNG, Strom, H2/bio, power2x, ….)<br>- EU Green Deal > ff, Decarbo-Vorgaben 2030-2050 („netto-null“)<br>- Bewusstsein für Decarbonizing-Economy ist da, wird nachgefragt<br>- Schiffe müssen NMMO-Richtlinie erfüllen (Motoren-Änderungen)<br>- Energiekooperationen bekommen wesentliche Bedeutung (zB PV)<br>- TEN-T-Rahmenvorgaben bis 2030 (CEF-2-Programme)<br>- multimodal > synchromodal&advanced (Echtzeit, digital/autonom)<br>- „TTS“ = truck-train-ship / extrem schnelles Drehen von Gütern, aber wenig neue Flächen verfügbar (bebaut bzw. neue Widmungen ?)<br>- Engpässe/Beschränkungen bei traditionellen Infrastrukturen (Straße, Schiene, ….) bzw. Einschränkungen (Verbote $NO_x$, $CO_2$)<br>- Auswirkungen von Climate Change spürbar (Wasser dramatisch)<br>- Fachkräftemangel überall, Europa hat überalterte Bevölkerung<br>- Modernisierungsdruck wird stärker („E“, Anlagen, Gebäude, …)<br>- Lieferkettengesetz /Vorboten CSRD, Taxonomie<br>- ….. |

„*Ennshafen_4.clean*“

## Mission Statement

***„Public Private Partnership is our mission for developing port and businesspark – efficiently & successfully.“***


VERBINDEN
VERSORGEN
VEREINEN

ENNSHAFEN

Umwelt- und Energiepolitik

Der ENNSHAFEN ist ein bedeutender Binnenhafen & Wirtschaftsstandort von Oberösterreich und Niederösterreich und international vernetzter Logistikhub am Rhein-Donau-Korridor der Transeuropäischen Verkehrsrouten (TEN-T). Somit ist für uns die Verantwortung für nachhaltiges Handeln und die vorausschauende Ausrichtung auf die Erfordernisse der nächsten Dekaden unerlässlich.

Darum stellen wir unser Handeln unter die folgenden Prämissen:
- Wir beachten die Gesetze, wir leben nach ethischen und moralischen Grundsätzen und wenden unseren gesunden Hausverstand an.
- Wir handeln verantwortungsbewusst, nachhaltig, wirtschaftlich und zukunftsorientiert.
- Wir klassifizieren den Schutz der Umwelt und die Schonung der natürlichen Ressourcen gleichwertig zu finanziellem Unternehmenserfolg.

Die Umsetzung dieser Ziele hat oberste Priorität beim Handeln der Mitarbeiter und wird von den Führungskräften in ihrer Vorbildfunktion gelebt. Mit jährlich vereinbarten Zielen und Verfolgung deren Umsetzung entwickeln wir uns laufend weiter, kontinuierliche Verbesserung ist eine Grundlage unseres Handelns.

Wir verpflichten uns insbesondere,
- zum Aufbau einer effizienten Infrastruktur für nachhaltige Güterverkehrseinrichtungen nach dem Stand der Technik,
- vorausschauend Schritte zu setzen, die zu einer wirtschaftlichen Anwendung der besten verfügbaren Technik („BAT“) führen,
- zur Ausarbeitung und zur Umsetzung von Maßnahmen zur Abschwächung des Klimawandels und zur Ressourcenschonung bei eigenen Prozessen sowie in Kooperationen mit Partnern im Public-Private-Partnership-Modell des Ennshafens,
- zum Schutz des Ökosystems „Wasser“ an der Enns und der Donau sowie zu laufenden Verbesserungsmaßnahmen bei Luft- und Lärmemissionen nach internationalen Standards und
- zu Beiträgen für eine „Gute Nachbarschaft“ mit den Partnern am Standort und den benachbarten Kommunen.

Unser Leitsatz lautet: VERBINDEN – VERSORGEN – VEREINEN, das gilt im Besonderen auch für die Umwelt- & Energiepolitik:
- VERBINDEN von effizienter Infrastruktur und nachhaltigen Güterverkehrsströmen,
- VERSORGEN von Menschen und Wirtschaft unter Anwendung von fortschrittlichen technischen Lösungen,
- VEREINEN von Interessen von Wirtschaft, Nachbarschaft und Ökologie zum förderlichen Miteinander.

Ennshafen OÖ GmbH und Ennshafen NÖ GmbH
Enns, Juni 2021

Vision

SWOT

Strategic Focus

yearly action plan
(projects / measures)

⇔ *details – details – details*
*e.g. „environment & energy goals“*
*(short-medium-long term)*

>>> CSRD / EU-Taxonomy !

*many detailed content-pages ….*
- *financial planning (medium term)*
- *KPIs (5-years), yearly budgets, …*
- *…..*

# Framework: CSRD & EU-Taxonomy & CSDDD („non-financial reporting duties" – part of annual financial statement)

*[why for our port ? framework will become stepwise compulsory - we are member of a big holding of Upper Austria / ownership of the port]*

## up to now

EU Regulations (fix) and Directives (deploy)
*Austrian deployment: draft from Jan 2025 > HOLD ?*

[EU Green Deal: 2019]

### EU-Taxonomie [2020]

(EU) 2020/852 Taxonomie Regulation from 18.6.2020 – sustainable business activities (taxonomy-eligibility / taxonomy-conformity) > for future financing processes

### CSRD + ESRS [2023]

Corporate Sustainability Reporting Directive / CSRD, 16.12.2022 – set into force 5.1.2023 > until 6.7.2024 into national legislations
ESRS1+2: first drafts in 2022 > „Delegierte Verordnung (EU) 2023/2772 – 31.7.2023, set into force 1.1.2024 [European Sustainability Reporting Standards]

- 1.wave: „really big ones" (since 2024)
- 2.wave: > 250 MA / > 50 mio / > 25 mio: 2025 > HOLD / CHANGE / SHIFT
- 3.wave: smaller ones > STOPP
- 4.wave: non-EU > ….

### CSDDD [2024]

Corporate Sustainability Due Diligence Directive, set into force on 25.7.2024 > until 26.7.2026 into national legislation

## changes by **„Omnibus" proposal** / Commission (EU COM (2025)/80+81 – February 2025 >>> „work in progress"

***umbrella approach:*** *EU Clean Industrial Deal > focus upon new „competitiveness & climate protection" > reduction of excessive bureaucracy ! - climate targets still alive / decarbo 2030 – 2050 / corporate carbon footprint Scope 1-3, climate transition plan, …*

**Start of a fundamental revision process**

- changes for CSRD (shift of timeline – 2 years ?, simplifications, scope and size classes / thresholds, ….)
- no longer „sector-specific standards"
- reduction of data points
- focus on a „voluntary class" (VSME) -simplified standards
- changes in Taxonomie (implementation of a materiality threshold concept, revision of technical criteria, revision of DNSH-criteria, OpEx ?, simplification of forms, …
- simplification of value chain assesment („only 1" & 2028-ff)

Member States have to finalize until end of 2025 (set into force max 6 months after Omnibus-finalisation – 06/2026 ?) …

# CSRD & ESRS (excerpt - overview)

The Corporate Sustainability Reporting Directive (CSRD) requires companies to report on the **impact of their business on the environment and society**, and requires the **audit** (assurance) **of reported information**. While ESG provides a broad set of criteria regarding a company's impact on environment, society, and governance practices, CSRD is a regulatory framework of the European Union to enhance and standardize sustainability reporting.

A **double materiality assessment** is the starting point for CSRD reporting; it lays a solid foundation for the setup of the **sustainability strategy**. The double materiality principle in sustainability reporting means that companies need to assess sustainability topics on both how the company impacts each topic (inside-out) and how the sustainability issues themselves impact the company (outside-in). This concept acknowledges the fact that risks and opportunities can be **material from both a financial and non-financial perspective -** impact materiality (Auswirkungswesentlichkeit) & financial materiality (Finanzwesentlichkeit). Double materiality requires companies to report on how their business is impacted by sustainability related factors, including extreme weather events and government policy decisions, so-called outside-in impacts, as well as how their activities impact society and the environment through emissions and employment ...

***ESRS: up to now 1184 data points / 279 quantitative***
*(European Sustainability Reporting Standards)*

- *general information (196 datapoints / 27 quantitative)*
- *environmental metrics (533 datapoints / 192 quantitative)*
- *social metrics (405 datapoints / 64 quantitative)*
- *governmental metrics (51 datapoints / 13 quantitative)*

*> double materiality assessment (as basis für ESG-reporting)*
*> climate risk assessment (as basis for climate reporting)*

***„E-Package“: energy, fuels, electricity, waste, $CO_2$***

*$CO_2$ / corporate carbon footprint (CCF), reported as $CO_2$-equivalent, as „greenhouse gase equivalent”/ “$CO_2e$” [$CO_2$ – $CH_4$ – $N_2O$ – HFCs – PFCs – $SF_6$]*

*$CO_2e$ clustered in Scope 1 – Scope 2 – Scope 3*

***Carbon footprint is the most important basis for climate transition plan !***

# $CO_2$-balance according to CSRD / Scope 1-3 [as „greenhouse gase equivalent“ / $CO_2e$]

**Scope 1: direct emissions from a company’s owned or controlled sources; includes on-site energy, such as natural gas and fuel, refrigerants, and emissions from combustion [specific emission factors > $CO_2e$ in t/a]**

**Scope 2: indirect emissions generated by the production of purchased energy; includes purchased electricity, steam, …. – e.g. calculated from metered electricity consumption > “location-based” and “market-based” [specific emission factors > $CO_2e$ in t/a]**

**Scope 3: indirect emissions that occur in the value chain of a reporting company; to make a clear distinction between the scope 2 and scope 3 categories, the US Environmental Protection Agency (EPA) describes scope 3 emissions as “the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain”; even though these emissions are out of the control of the reporting company, they can represent the largest portion of its GHG emissions inventory [specific emission factors > $CO_2e$ in t/a]**

**Scope 3 is structered into 15 categories:**

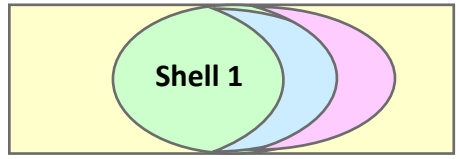
1. Purchased goods and service
2. Capital goods
3. Fuel and energy-related activities
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets
9. Downstream transportation and distribution
10. Processing of sold products
11. The use of sold products
12. End-of-life treatment of sold products
13. **Downstream leased assets**
14. Franchises
15. Investments [financial]

**Scope 1 + 2:** no problem for a logistic hub (port / terminal)

**Scope 3:** „a real challenge“ – for a PPP-port esp. category 13; cat 1-8 could be managed, even if no data of suppliers are available – eg. maintanence work, small investments, … >>> international data bases with expenditure-specific method / averaged figures – x kg $CO_2e$/€ figures for different works

***There is a lot of software / tools on the market.***
***BUT: the really challenge is the process definition for Scope 3 categories - especially category 13 !***

# $CO_2$-balance Ennshafen OÖ GmbH (2023)




**Shell 1:** core business of Ennshafen company / directly attributable emissions („scope of responsibility“ - batterie limit area, legal entity, ..)
**focus: "operative“**

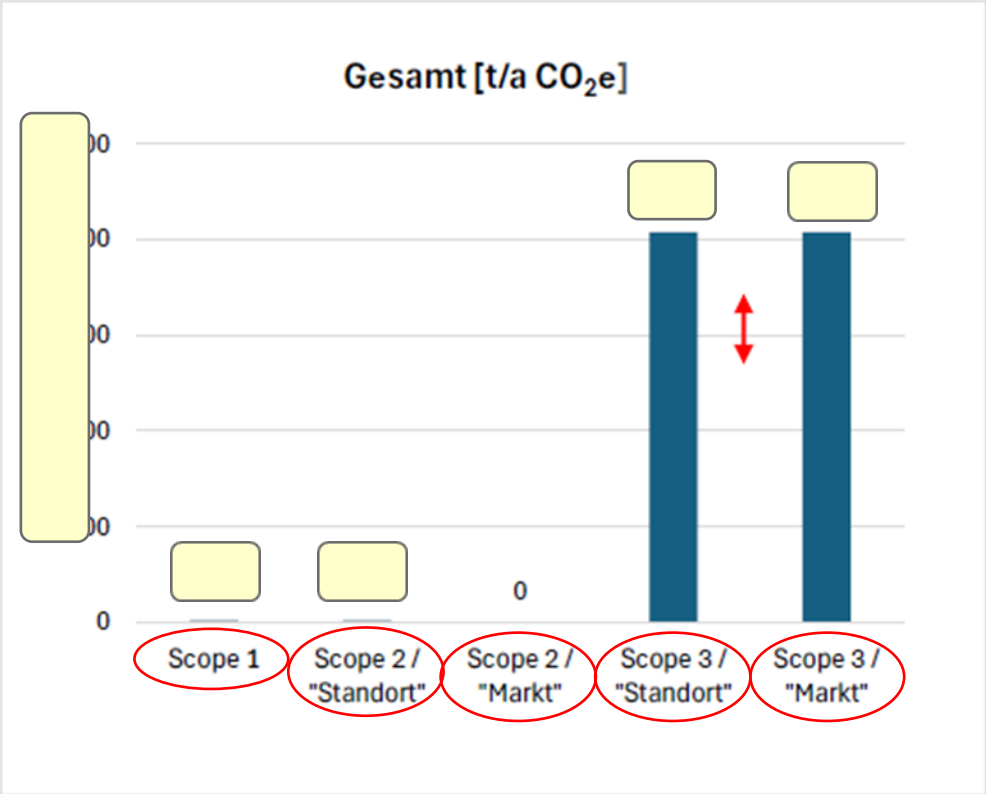
**Shell 2:** emissions from the business of the tenants on our areas / facilities (transhipments upon the quays, terminal, leasing & rental spaces, …)
**focus: „contracts“**

**Shell 3:** external emissions outside the port for transport stretches („gradle-to-gate“): outgoing / ingoing of vessels, railways, trucks
**focus: „transport“**

Schale 1: unmittelbares Geschäft der EHOÖ / der EHOÖ zurechenbare Emissionen („Verantwortungsbereich“ - batterie limit Bereich, legal entity, ..) - Fokus: "operativ"
Schale 2: Emissionen aus Betrieb von Pächtern auf unseren Anlagen/Flächen (Umschlagsbeiträge am Kai, am Terminal, auf Pacht-Mietflächen, ...) - Fokus: "Verträge"
Schale 3: Emissionsbeiträge ausserhalb des Hafens auf den Transportstrecken („gradle-to-gate“): Zu-/Ablaufbeiträge von Schiffen, Bahn und LKW - Fokus: "Transport"

| **SCOPE 1** [Werte in t/a $CO_2$e] | **Schale 1** | standortbezogen | marktbezogen | | | Summe |
|---|---|---|---|---|---|---|
| *[Flüssiggas LZE-Heizung, Kraftstoffe Handwerkzeuge]* | XX + X | | | | | |
| **Zwischensumme Scope 1** | **XX** | | | | | **XX** |
| **SCOPE 2** [Werte in t/a $CO_2$e] | **Schale 1** | standortbezogen | marktbezogen | | | Summe |
| *[Strom LZE-Bürogebäude, Aussenanlagen (Hafen)]* | | XX + XX | 0 | | | |
| **Zwischensumme Scope 2** | | **XX** | **0** | | | **XX (0)** |
| **SCOPE 3** [Werte in t/a $CO_2$e] | **Schale 1** | standortbezogen | marktbezogen | **Schale 2** | **Schale 3** | Summe |
| Kategorie 1: gekaufte Waren & Dienstleistungen | XX | | | | | |
| *[Waren, Dienstleistungen]* | | | | | | |
| Kategorie 2: Investitionsgüter | XXX | | | | | |
| *[Kleininvestitionen, Großinvestitionen]* | | | | | | |
| Kategorie 3: Brennstoff-/Energieaktivitäten ("Leitungen") | | XX | XX | | | |
| Kategorie 4: vorgelagerter Transport (bei Kat 1+2 dabei) | 0 | | | | | |
| Kategorie 5: Abfälle (inkl. Abwasser) | X | | | *minimal für Schale 2* | | |
| Kategorie 6: Geschäftsreisen | X | | | | | |
| Kategorie 7: Pendeln Arbeitnehmer:innen | XX | | | | | |
| Kategorie 8: vorgelagerte geleaste Vermögenswerte (Leasing-Fahrzeug) | X | | | | | |
| Kategorie 13: nachgelagerte geleaste Vermögenswerte | | | | | | XXXXX |
| 13.1.1) Verpachtung CTE & Anschlussbahn | | | | XXX (Umschlag) | XXXX (Verkehre) | |
| 13.1.2) Bahnumschlag Kaianlagen (Verträge) | | | | XX (Umschlag) | XXX (LKW) | |
| 13.2.1) Wasser-Land-Umschlag Kais (Verträge) | | | | XXX (Umschlag) | XXXX (Schiffe) | |
| 13.2.2) Pachtverträge Kai-Hinterland | | | | XX (Betrieb) | XXXX (Verkehre) | |
| 13.2.3) längere Kai-Nutzungen (Winterschiffe, ...) | XXX | | | | XXX (Pachtflächen) | |
| 13.2.4) sonstige Pacht-/Nutzungsverträge (Straßen) | X | | | | | |
| 13.3.1) Büroflächenvermietung LZE-Gebäude | | | | XXX (Mieter) | | |
| 13.3.2) Vermietung Seminarräume | X | | | | | |
| 13.3.3) Vermietung Betriebskantine | XX | | | | | |
| Kategorie 15: Investitionen | 0 | | | | | |
| **Zwischensumme Scope 3** [Werte in t/a $CO_2$e] | **XXXX (XXXX)** | | | **XXXX** | **XXXXX** | **XXXXX (XXXXX)** |
| **Summe Scope 1-3 Standort-bezogen (Markt)** [in t/a $CO_2$e] | **XXXX (XXXX)** | | | **XXXX** | **XXXXX** | **XXXXX (XXXXX)** |

# $CO_2$-balance EHOÖ (2023)




***enormerous differences between the different Scopes for a logistic hub > devide into sections in order to get a better view on it***

**Scope 1:** direct emissions from a company's owned or controlled sources; includes on-site energy, such as natural gas and fuel, refrigerants, and emissions from combustion

**Scope 2:** indirect emissions generated by the production of purchased energy; includes purchased electricity, steam, …. – e.g. calculated from metered electricity consumption > "location-based" and "market-based"

**Scope 3:** indirect emissions that occur in the value chain of a reporting company; to make a clear distinction between the scope 2 and scope 3 categories, the US Environmental Protection Agency (EPA) describes scope 3 emissions as "the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain"; even though these emissions are out of the control of the reporting company, they can represent the largest portion of its GHG emissions inventory *[our first approach: only stretches in Europe]*

# $CO_2$-balance EHOÖ (2023)

**Shell 1:** core business of Ennshafen company / directly attributable emissions („scope of responsibility“ - batterie limit area, legal entity, ..) **focus: "operative“**

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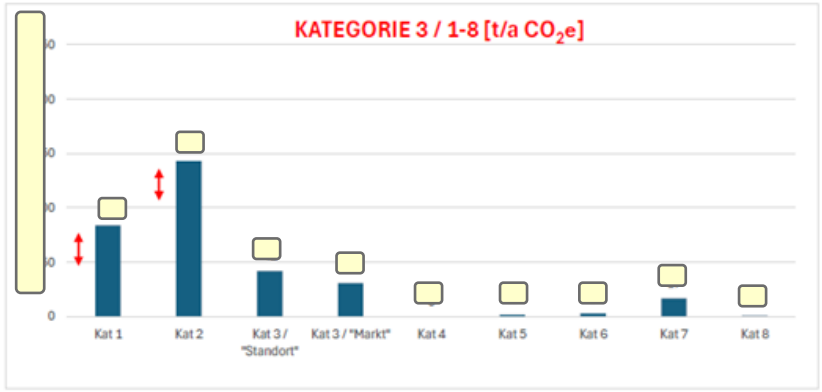
**Shell 3:** external emissions outside the port for transport stretches („gradle-to-gate“): outgoing / ingoing of vessels, railways, trucks **focus: „transport“** – [our first approach: only stretches in Europe !]

only Scope 3 / **Kategorien 1-8**
2023: **XXX** (XXX) t/a $CO_2$e

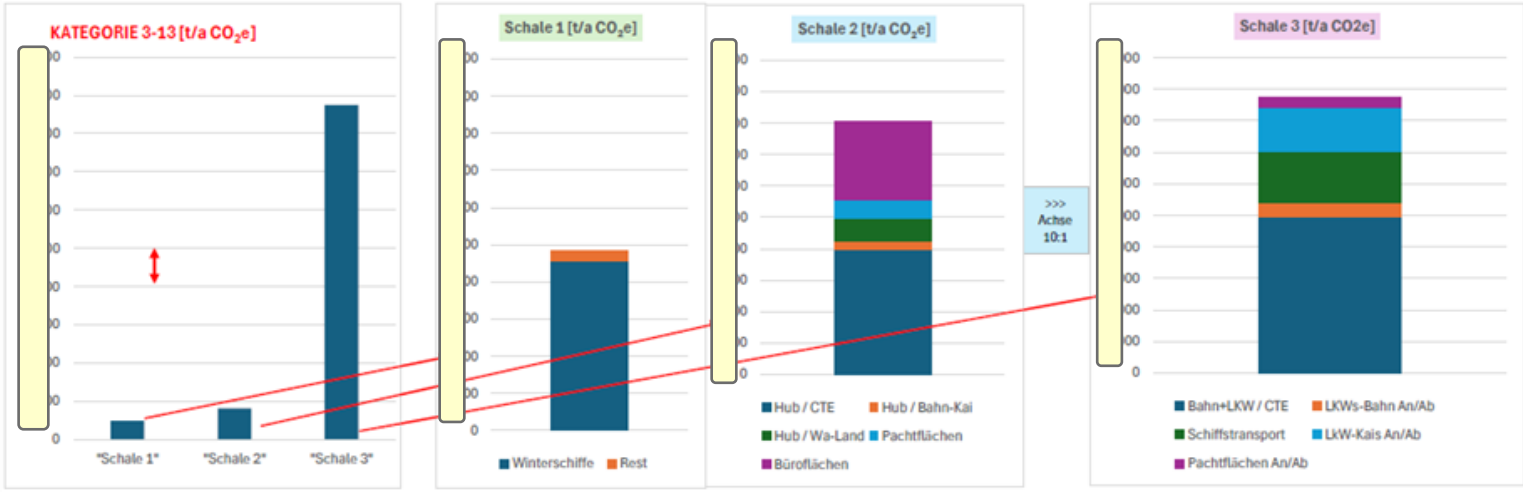
*„everything in shell 1“*

only Scope 3 / **Kategorie 13**
2023: **XXXXX** t/a $CO_2$e

*dividing into shells 1 - 2 -3*



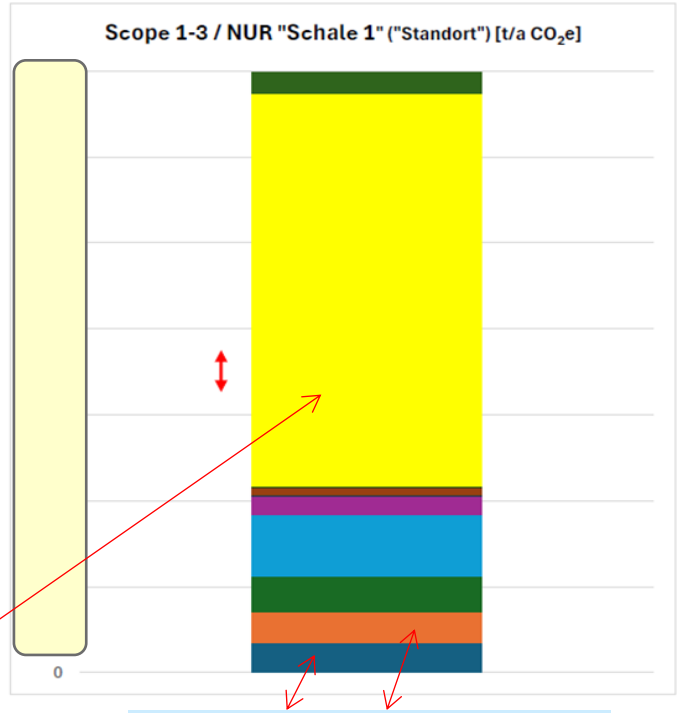

1: Waren+DL
2: Investitionen
3: BS-Energie-indirekt
4: Transport
5: Abfall
6: Geschäftsreisen
7: Pendeln-AN
8: vorgelagerte geleaste Vermögen



# Scope 1-3 / **only shell 1** (“location based“) – ***„direct resonsibility of EHOÖ“***

**Scope 1 -3 / NUR Schale 1 ("Standort") [t/a $CO_2$e]**

| | |
|---|---|
| Scope 1 / Heizung | 1 |
| Scope 2 / Strom (Standort) | 0 |
| Scope 3.1 / Waren+DL | 4 |
| Scope 3.2 / Investitionen | 3 |
| Scope 3.3 / "BS-Energie-indirekt" (Standort) | 2 |
| Scope 3.5 / Abfall | 2 |
| Scope 3.6 / Geschäftsreisen | 3 |
| Scope 3.7 / Arbeitnehmer | 7 |
| Scope 3.8 / vorgelagerte geleaste Vermögen | 1 |
| Scope 3.13 / Winterschiffe | 4 |
| Scope 3.13 / Sonstige Nutzungen | 1 |
| Scope 3.13 / Betriebskantine | 0 |
| ***Summe 1-3 / Schale 1*** | 8 |




CEF-2-project ONSHORE POWER SUPPLY [€]

building renovation [€]

*additionally:*

PV on own areas

*(net-neutrality measure)*

*potential: ca. xxx t/a $CO_2$e (rough)*

*but: looking for a „future approach“ (energy storage)*

Copyright: Danubia Speicherei

# „from environmental-energy-goals to CLIMATE TRANSITION PLAN“

*up to now*

ENNSHAFEN

Umwelt- & Energieziele (Update Nov 2024)

KURZFRISTIG (etwa 1 Jahr)

- Landstrom / Durchführung der Investition gemäß CEF-2-Projekt (Laufzeit: 2024-2027)
- Grobplanung energetische Sanierung LZE-Bürogebäude
- Feasibility „PV im Ennshafen“ weiterentwickeln
- $CO_2$-Neutralitätsplanung weiterentwickeln (im Rahmen CSRD)

MITTELFRISTIG (ca 2-3 Jahre)

- sukzessive Erneuerung Landstrom bei den Güterkais
- $CO_2$-Neutralitätsziel „Ennshafen2zero“ weiter verfolgen bzw. CSRD-Plan-Umsetzungen
- Masterplan für Kai21-Fläche konkretisieren (Entwicklung möglichst als „Hebel“ für CSRD-Ziele)
- CDNI-Entwicklungen für Österreich verfolgen & Maßnahmenplanung („Übereinkommen über die Sammlung, Abgabe und Annahme von Abfällen in der Rhein- und Binnenschifffahrt“ - Nov 2009)
- Elektrotankstellen stufenweise errichten (wenn Marktbedarf bzw. gemäß Green Building Directive)

LANGFRISTIG (4++ Jahre)

- Landstrom & Ladestationen auf neuen Standard bringen (TEN-T-Vorgaben + Regierungsprogramm)
- AFID-Vorgaben für Hafeninfrastruktur erfüllen (LNG, Strom, eFuels, $H_2$-Entwicklungen, …)
- Realisierung „Klimaneutralität Gebäude bis 2035“ & Wärmeversorgung (oö Regierungsprogramm)

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**EU-Taxonomie** (draft of current checking)

*100 % turnover in „Taxonomy-eligible business activities“*

- 6.14: rail transport infrastructure
- 6.16: infrastructure for low-carbon shipping
- 7.7: acquisition and property of buildings

**ESG - materiality assessment** (draft of current checking)

*primary findings* ***– fundamental basis: carbon footprint***

- high fossile emissions – heavy logistics (big vehicles, heavy engines)
- heavy logistics needs „solid infrastructure“ – much concrete, much steel, huge areas, …
- water transport and relevant infrastruture is a special niche in general business landscape – special knowhow, not usual
- huge areas bring up good opportunities (PV)

➢ *we need green electricity – secured for the long term run*

➢ *„whenever you take up something in a port, it quickly goes into the big money“*

# „approach to a CLIMATE TRANSITION PLAN“

**SIGNIFICANT topics** for

## „CLIMATE TRANSITION PLAN“ *(draft paper)*

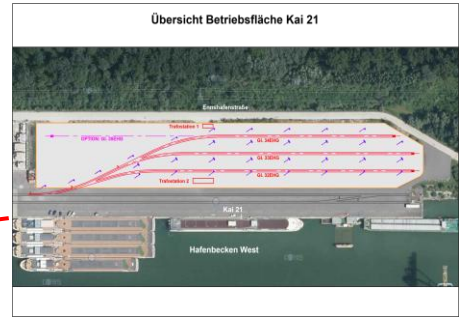
*time horizon: appr. next 10 years (w.i.p)*

### CCM: „Climate Change Mitigation“

- **onshore power supply (new: Powerlock, upgrading cargo transhipment quays)**
- **building renovation (heating, cooling, isolation, windows, ...) > energy certificate from class „C“ to class „B/A“ (catalog of technical criteria)**
- **installation of photovoltaics withion the port area (fallow land, parking spaces, buildings, ...)**
- **area expansion / finalisation (quay 21) > for enhanced railway business**
- **E-charging stations for trucks**

### CCA + CCM: „Climate Change Adaption“

- **digging of sediments (port areas / basins)**




# From $CO_2$-balance to onshore power supply invest-project

***CEF – Connecting Europe Facility***

CEF-1: **Ennshafen prepares smart & sustainable mobility investments**
- **> (2021 – 2024)**
- **> study project: railway debottlenecking, LNG, onshore power supply, digitalisation**

CEF-2: **Electrified Danube_Close the Gaps at Ennshafen, Austria**
- **> 2024 – 2027**
- **> works: onshore power supply investment according to currently needs (400 A)**
- **> appr. 6 mio € invest-volume (50 % co-founded by CINEA)**

Co-funded by the European Union