



Kiertotalouden markkinahyväksyntä:

Case Sleipner

Sleipner Finland Oy

Outi Piisilä

16.5.2025

Esityksestä

- Sleipner lyhyesti
- Asiakastarve
 - Asiakastarpeen määrittely
 - Asiakastarpeen kartoittaminen
- Lisäarvon tuottaminen kiertotaloudesta
 - Lisäarvon konkretisointi

SLEIPNER FINLAND OY

JYVÄSKYLÄ

11 M€

19 EMPLOYEES

MOBILITY SOLUTIONS

**USER BASED
INNOVATION**

**59
COUNTRIES**

**ISO 9001
ISO 14 001**

The wheeled advantage

Sleipner gives you the mobility advantage.

PROFITABILITY

From mines and quarries to contracting sites, Sleipner is like having an extra machine at your disposal.

HEALTH & SAFETY

Sleipner trains your personnel for safe, fast and smooth wheeled transports that improve working health and safety.

SUSTAINABILITY

Transporting on wheels reduces the fuel consumption of your entire operations while cutting down on CO₂ emissions.



Sleipner solutions and services



Sleipner E Series

Cost-effective dollies for excavators



Sleipner DB Series

Multipurpose offroad trailers



Sleipner Services

Support, spare parts and training

Wheeled advantage for every application



Mines



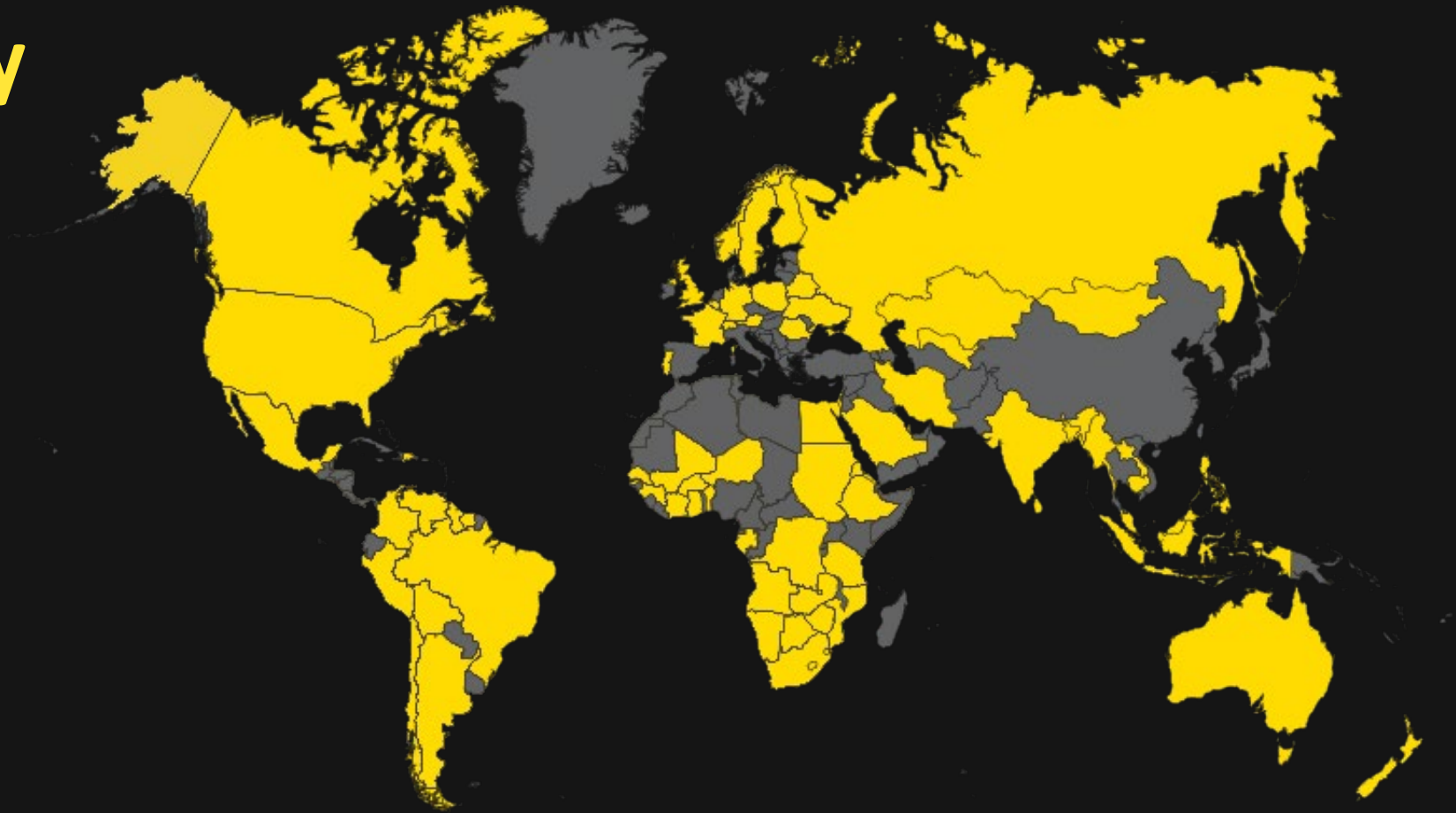
Quarries



Other applications

Sleipners globally

<https://sleipner.com/sleipners-globally/>



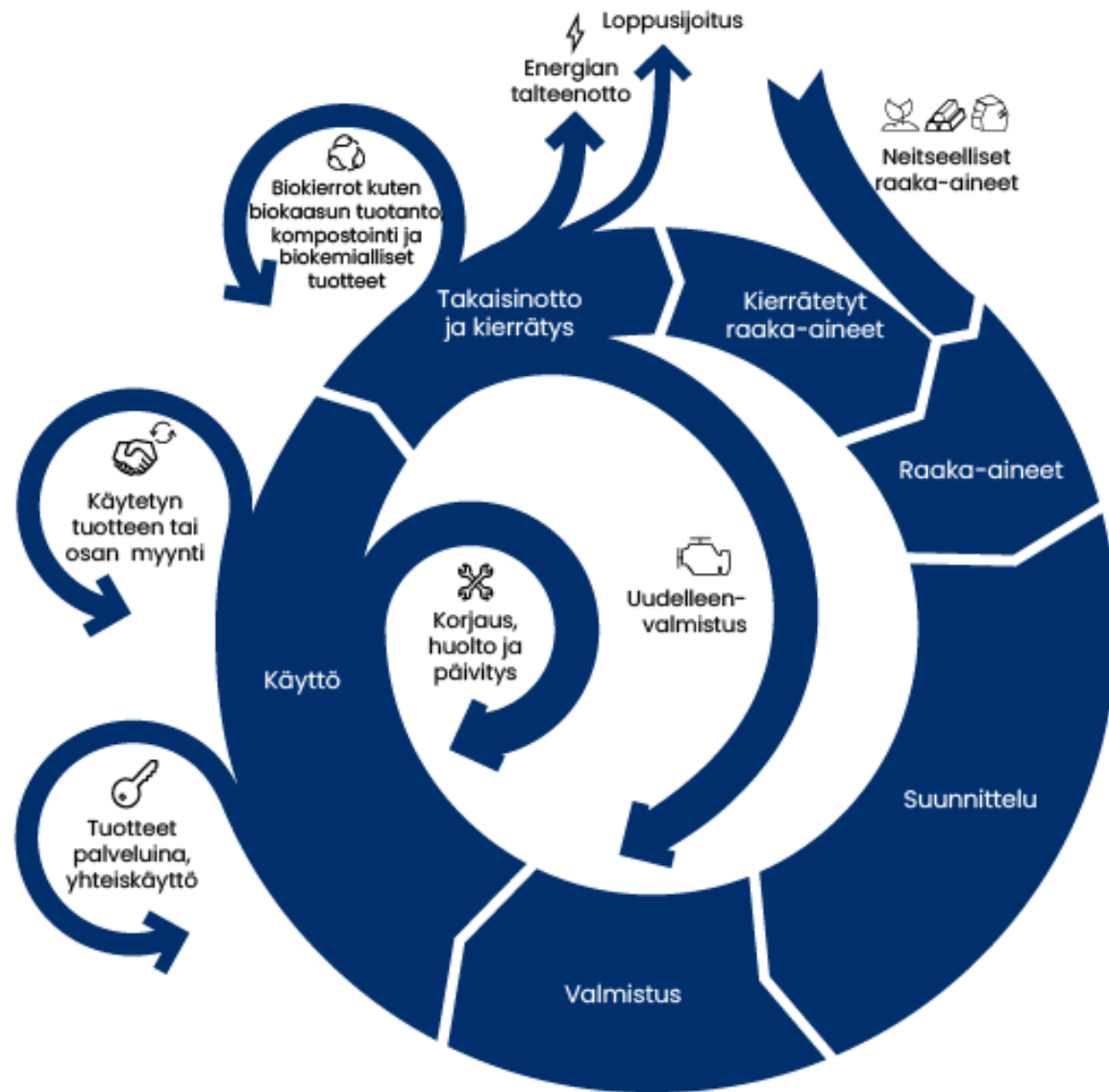


Asiakastarve



Asiakastarpeen määrittely globaaleilla markkinoilla

- Millainen on asiakkaan toimintaympäristö?
- Miten asiakkaan toimintaympäristö on muuttunut?
- Miten asiakkaan toimintaympäristö todennäköisesti muuttuu tulevaisuudessa?
- Millaisia kulttuurisia, demografisia tai maantieteellisiä erityispiirteitä toimintaan liittyy?
- Mitä asiakas arvostaa tai painottaa?
- Mitä asiakas ei arvosta tai ei hyväksy?
- Mitkä ovat asiakkaan päämäärät ja tavoitteet?
- Mihin asiakas on sitoutunut?
- Mitkä ovat asiakkaan lyhyen ja pitkän aikavälin tavoitteet?
- Mitkä asiat mahdollistavat asiakkaan onnistumisen?



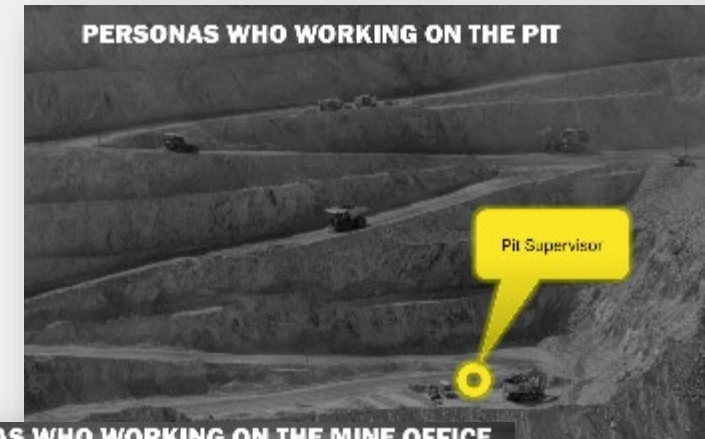
© Valtioneuvosto (2023)

- Mihin kiertotalouden osa-alueeseen asiakkaan haasteet liittyvät?
- Millaisia tehottomuuksia asiakkaan toiminnassa tai prosessissa on?
- Millaisia haasteita asiakas kohtaa arjessaan toistuvasti, viikoittain tai päivittäin?
- Millaisia ongelmia tai esteitä asiakkaalla on?

→ Mihin asiakkaan tehottomuuteen, haasteeseen, ongelmaan tai esteeseen pystyt tarjoamaan ratkaisun?

Asiakastarpeen kartoittaminen

- Asiakas
 - Asiakkaan tapaaminen kasvotusten
 - Myyntitapaamiset ja -neuvottelut
 - Asiakkaan toimittama materiaali (tarjouspyynnöt jne.)
 - Asiakashaastattelut ja –kyselyt, asiakaspersoonat
 - Asiakaspalaute, reklamaatiot
- Julkiset lähteet
 - Megatrendit
 - Toimialatietoisuus
 - Asiakkaan julkisesti tuottama materiaali (nettisivut, vuosikertomukset, ESG-raportit, SOME)
 - Kilpailijoiden materiaali
 - Sidosryhmien materiaalit
 - Messut, tapahtumat, webinaarit
 - Kaupalliset palveluntuottajat (talous, sanktiot)
 - Viranomaisluvut, oikeustapaukset



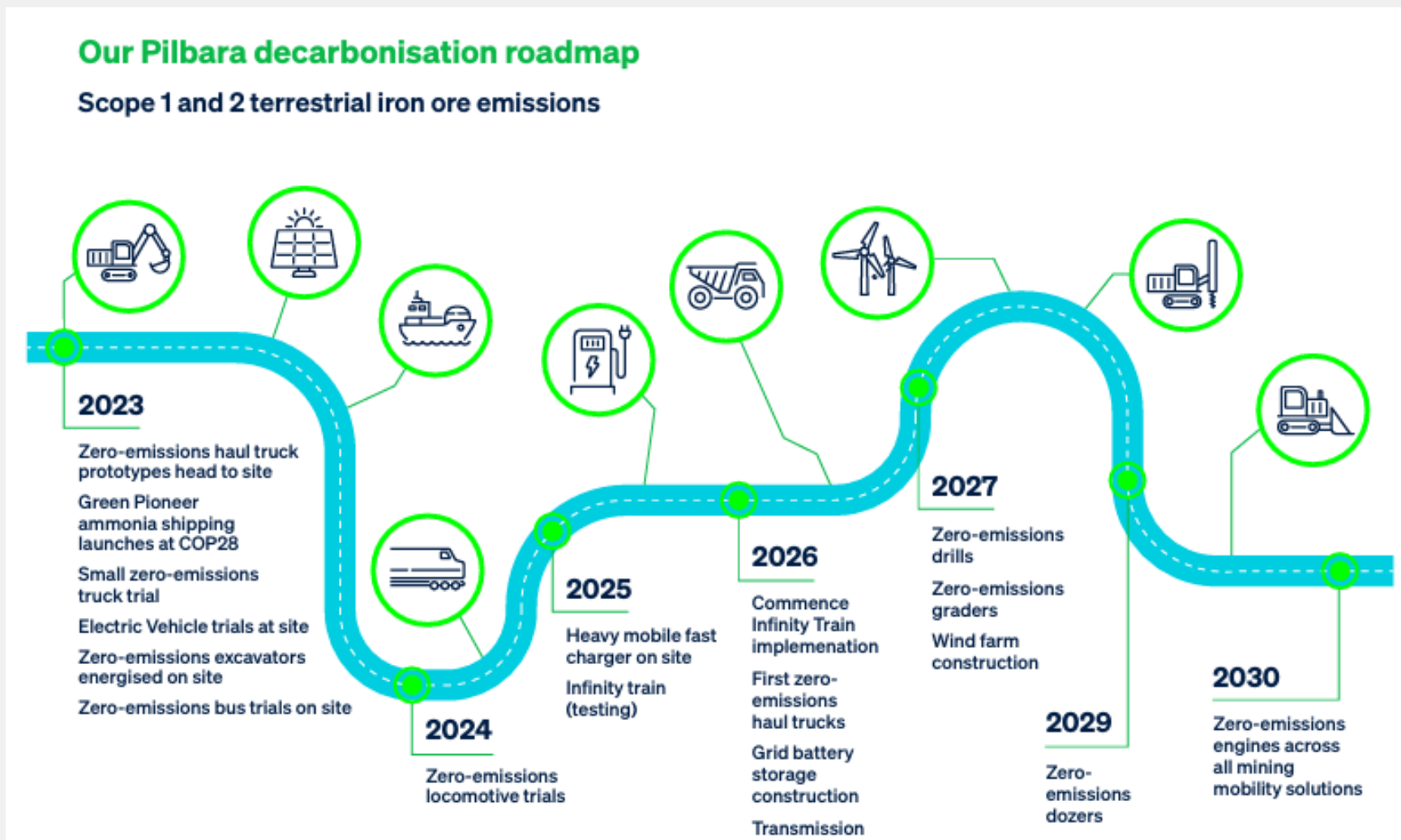
Asiakastarpeen tarkastelu

- *Scope 1 and 2 Emissions target by 2030*
 - *Real Zero Scope 1 and 2 emissions across our Australian iron ore operations by 2030, with a commitment to have our targets verified in FY24 by the Science Based Targets Initiative.*
 - *Real Zero refers to no fossil fuels and no offsets. We have a costed plan to decarbonise our Australian terrestrial iron ore operations in the Pilbara by 2030. At the time of this report, Fortescue has identified the solutions it plans to adopt to eliminate approximately 90% of terrestrial Scope 1 and 2 emissions from its Australian iron ore operations. We are actively working to identify solutions for the final approximately 10%*
- *The Green Mobility group is also identifying solutions to diesel generators, light vehicles, support mining equipment and working with on-site contracting partners to align on a pathway to successfully transition their fleets. A suite of trials for validating battery electric light vehicles, support mining equipment and electrical infrastructure will be completed in FY24.*
- *The team is pursuing opportunities with OEMs across the complex supply chain and have committed to purchase three electric 400 tonne excavators and two battery electric locomotives.*



Lähde: Fortescue Climate Change Report 2023

Asiakastarpeen tarkastelu



Lähde: *Fortescue Climate Change Report 2023*

Asiakastarpeen tarkastelu

MALMIN HINTA

Rautamalmi (Iron ore)

104,12 \$/t (2.12.2024)

100,75 \$/t (14.5.2025)

KAIVU

500 tn kaivinkone

3 600 t/h

HUKKAKIVI

45 % rautamineraali, 55 % hukkakiveä

1 620 t/h rautamineraalia

1 980 t/h hukkakiveä

TUOTANTOPROSESSIN ARVO

$1\,620\text{ t/h} \times 104,12\text{ \$/t} = 168\,674\text{ \$/h}$

*sisältää koko tuotantoketjun

TUOTANTOKUSTANNUS

23,50 \$/t (Rio Tinto)

$1\,620\text{ t/h} \times 23,50\text{ \$/t} = 38\,070\text{ \$/h}$

*sisältää koko tuotantoketjun

TUOTANNON ARVO

$168\,674\text{ \$/h} - 38\,070\text{ \$/h} =$

130 604 \$/h

*koko tuotantoketjun arvo

Lähde: [Rio Tinto Annual Report 2024](#)



Lisäarvon tuottaminen kiertotaloudesta



Jalanjälki vrs. kädenjälki



Organisaation nettovaikutukset, jotka syntyvät tässä organisaation liiketoiminnasta ja kohdistuvat ympäristöön, ihmisiin ja talouteen.

Ovat jo syntyneet tuotannon aikana tai syntyvät tässä hetkessä.



Organisaation tuotteen tai palvelun positiiviset vaikutukset, jotka kohdistuvat asiakkaaseen tai sidosryhmiin.

Syntyvät usein käytettäessä tai tulevaisuudessa.

Lisäarvon tuottaminen tehottomuudesta

Arvoketjun viisi tehottomuutta

Suunnittelu

Hankinta

Valmistus

Logistiikka

Markkinointi
ja myynti

Tuotteen käyttö

Kierrätys ja
uudelleenkäyttö

1. Materiaalien käyttö ei ole kestävä

Materiaaleja ei saada talteen, energia ei ole uusiutuvaa.

2. Hyödyntämätön kapasiteetti

Tuotteet ja resurssit eivät ole tehokkaassa käytössä, niitä käytetään esimerkiksi vain osa ajasta tai kaikkia ominaisuuksia ei hyödynnetä.

3. Tuotteiden lyhyt elinikä

Tuotteet eivät ole käytössä koko potentiaalista elinikäänsä. Syynä voivat olla niiden ennenaikainen käytöstä poistaminen tai korjauksen ja huollon puuttuminen.

4. Arvo hukkaan elinkaaren lopussa

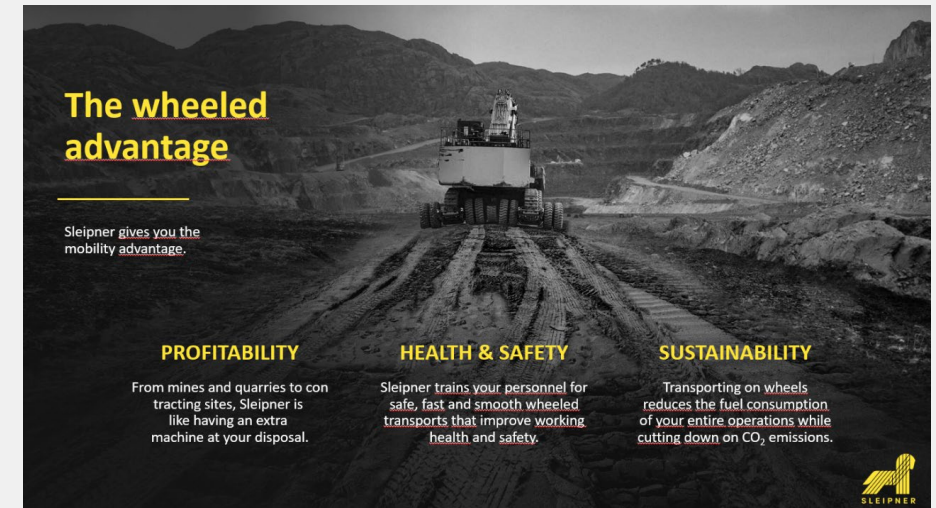
Arvokkaita komponentteja, materiaaleja tai energiaa ei saada talteen. Ne menevät hukkaan esimerkiksi tuotteen elinkaaren lopussa.

5. Asiakassuhteista ei saada kaikkea irti

Myyntiorganisaatio keskittyy tuotteiden määrälliseen myyntiin sen sijaan, että kokonaisvaltaisesti ratkaistaisiin asiakkaiden tarpeita. Tämän seurauksena voidaan hukata esimerkiksi lisämyynnin mahdollisuudet tuotteen elinkaaren aikana.

Lisäarvon konkretisointi

- Myytkö tuotetta, palvelua vai ratkaisua ongelmiin?
- Mihin asiakkaan osa-alueisiin tuot lisäarvoa?
- Miten lisäarvoa voisi konkretisoida?
- Miten kuvata lisäarvoa visuaalisesti?
- Miten kuvata lisäarvoa lukuina?



Boost your mining efficiency with Sleipner

As mines open in increasingly challenging locations, Sleipner dollies and trailers boost efficiency.

“After professional on-site training and commissioning, the operators are eager and confident in using the Sleipner products. After a few months of use, the positive impact was already visible in maintenance. Together with the increased production time, the payback time was almost instant.”

MOBILITY MEANS PRODUCTIVITY

Up to 85% less travel time, 12–20% more productivity.

LESS MAINTENANCE COSTS

50% less undercarriage maintenance, 20% less labour hours.

LOWER LIFECYCLE COST

Reduce your excavator LCC by 10–18%.

Wheels of change for a sustainable future



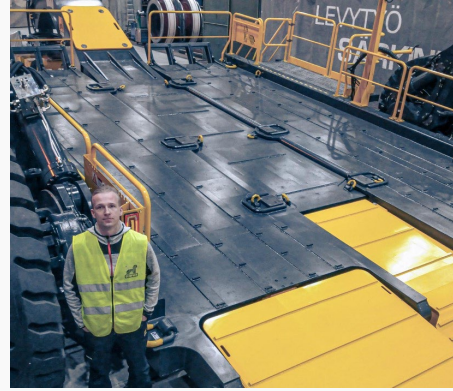
Environmental responsibility

Actions and products – our entire value chain has made a commitment to achieve our environmental goals.



Health & safety

Whether it is our own employees, customers, partner network or other stakeholders, our target is always uncompromised safety.



Responsible procurement

Mutual trust and responsible collaboration helps ensure the sustainability of our entire value chain.



Human rights

Sleipner is committed to respecting human rights in its operations in every possible way.



Code of conduct

Our comprehensive Code of Conduct outlines the ethical principles for our operations.

CASE: 13 dozers for the price of 9 – Sleipner helps cut maintenance costs in South Africa

South African platinum mine, after using a Sleipner DB120 lowboy trailer for only 6 months, maintenance costs for the 13 dozers were reduced to below the budgeted maintenance budget for 9 dozers.

- Multiple open pits measuring over 10 km (6 miles) in length make fleet management challenging. The improved mobility resulted in quick savings.
- The low centre of gravity of the DB120 improves stability and removes the danger of falling off when loading and unloading the dozer, improving working safety.
- The exceptional manoeuvrability allows loading at the actual operating location. No un-hitching or re-hitching of the ADT is required.



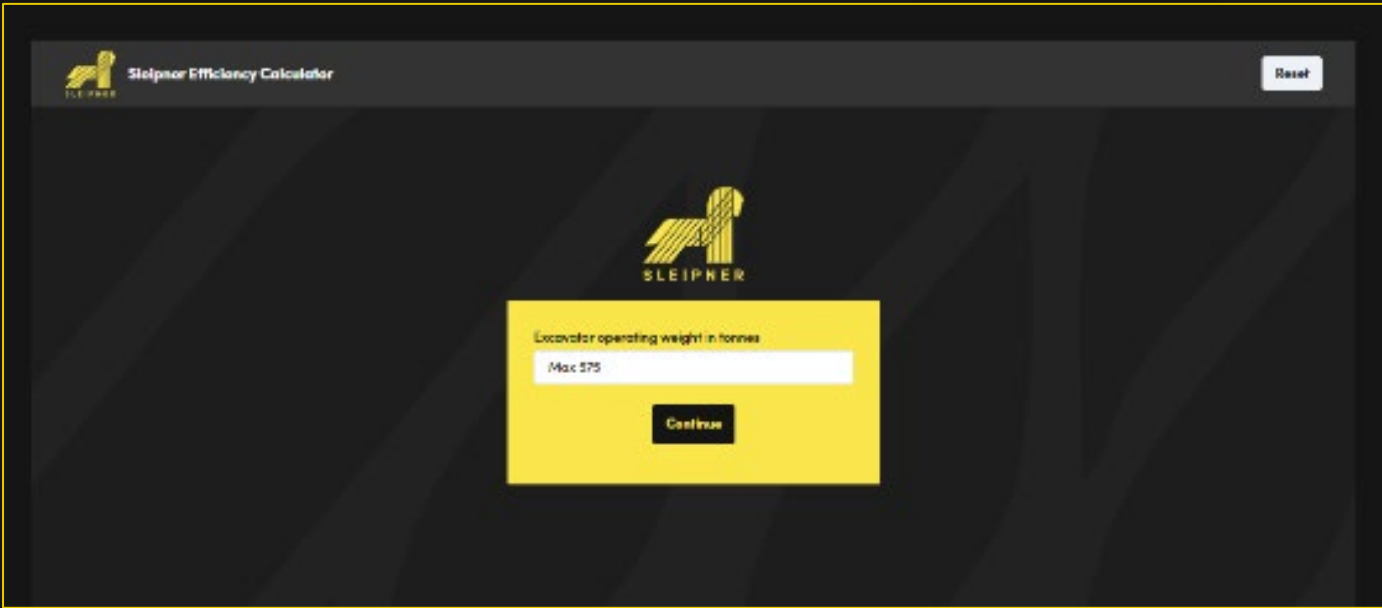
Sleipner DB120

“

All the maintenance could be done at the workshop within a contaminant-free environment, where all the tools and service equipment were available together with the spare parts. The workshop environment allowed for unplanned maintenance tasks to be performed at the same time as the planned maintenance, instead of having to book a separate service time later.

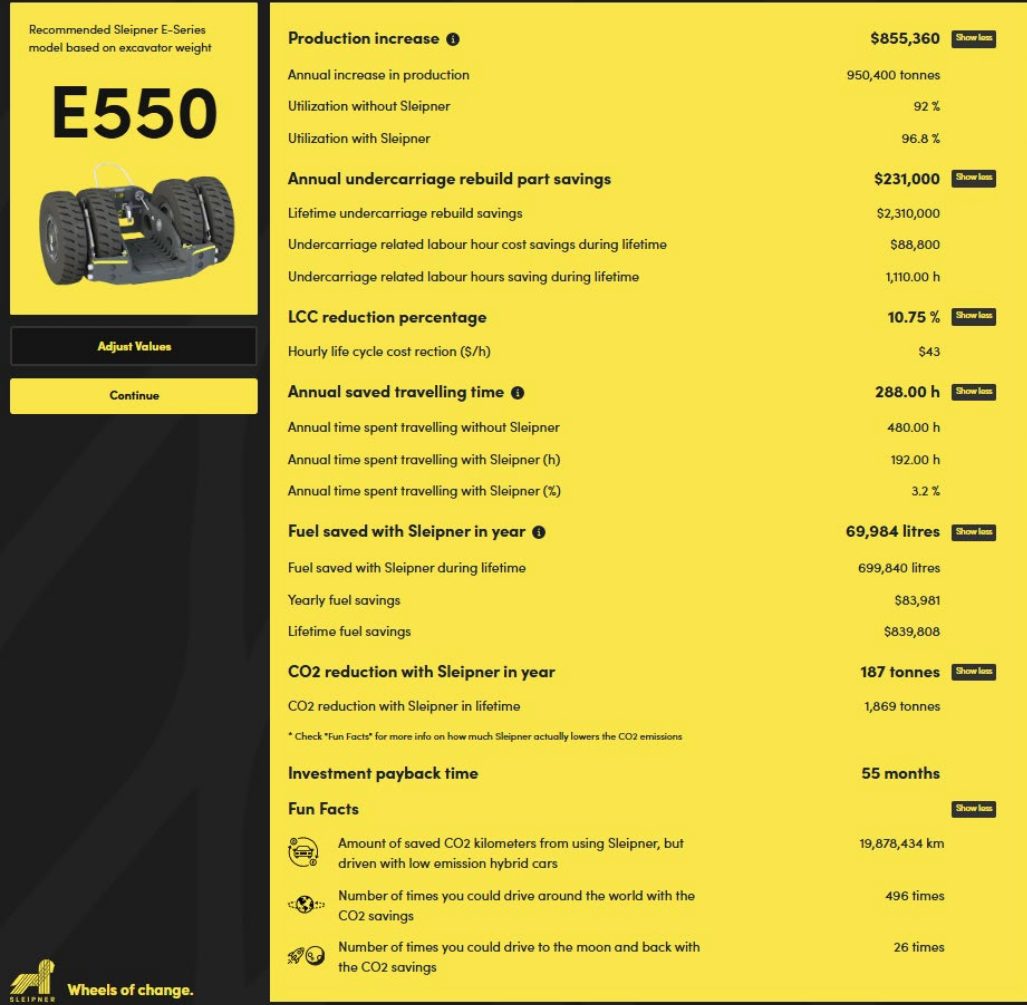
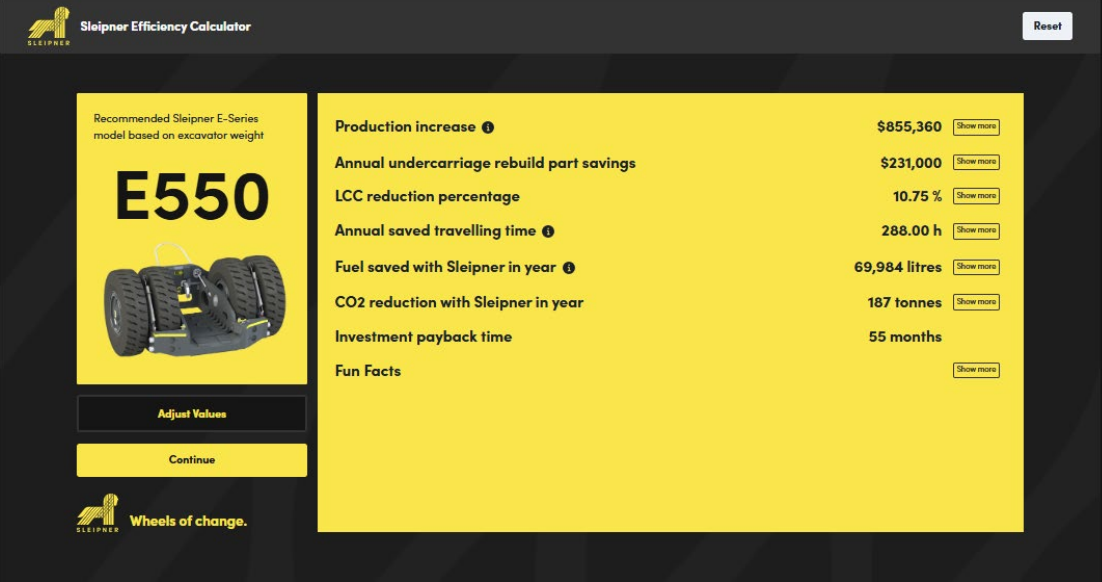
Lisäarvon konkretisointi

Miten yksilöidä tuottavuus? Millä tavoin konkretisoida tuottavuus? Miten havainnollistaa vastuullisuutta? Miten esittää ymmärrettävästi muut lisäarvoa tuottavat ominaisuudet?

The image shows a web application titled "Sleipner Efficiency Calculator". It features a dark grey header with the Sleipner logo on the left and a "Reset" button on the right. The main content area has a dark grey background with a large, faint Sleipner logo. In the center, there is a yellow rectangular box containing the text "Excavator operating weight in tonnes" above a white input field. The input field contains the text "Max 575". Below the input field is a black button with the word "Continue" in white text.

[Benefit calculator](#)

Lisäarvon konkretisointi

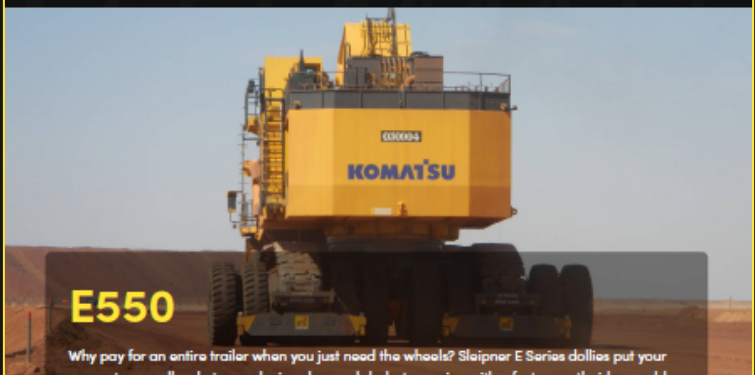


Lisäarvon konkretisointi



Sleipner Finland Oy
Outi Piisla
outi.piisla@sleipner.com

YOUR BENEFIT, OUR COMMITMENT



E550

Why pay for an entire trailer when you just need the wheels? Sleipner E Series dollies put your excavator on roller skates, replacing slow and shaky tramming with a fast, smooth ride on rubber wheels. This means up to 85% less time used for on-site transits and more time for productive work.

The Sleipner Benefit Calculator lets you specify individual resource options and displays the benefits to your mine instantly. Here are just some of the values that Sleipner can calculate for you. Turn the page and see all the values produced by the calculator.

Key benefits	
Production increase	\$855,360
Lifetime savings in undercarriage rebuilds	\$2,565,000
Lifetime reduction in CO2 emissions	1,869 tonnes
Payback time	55 months



Wheels of change.

SLEIPNER FINLAND OY

sleipner.com



Production Benefits

Sleipner Finland Oy
Outi Piisla
outi.piisla@sleipner.com

WORKING HOURS

Hours worked with one excavator in one year **6000 h**

TIME SPENT TRAVELLING

Total time spent travelling **480 h**
Distance covered **432 km**

TIME SAVINGS

Annual time spent travelling with Sleipner **3.2%**
Annual saved travelling time that can be transferred into production **288 h**

UTILISATION

During normal operations at the mine, excavators spend up to 15% of their working time on tracks, resulting in a negative impact on the efficiency of operations in the pit.

Without Sleipner **92%**



Travelling 8%
Digging 92%

With Sleipner **96.8%**



Saved Time 4.8%
Travelling 3.2%
Digging 96.8%

With Sleipner, travelling time is reduced by up to 85% and the saved time can be used for digging. This has a direct benefit for production.

PRODUCTION INCREASE

Annual increase in production 950,400 tonnes	Production increase \$855,360
--	---

In addition to the production increase from time saved during transportation, the Sleipner dollies makes it possible to maintain a steady production rate that is not affected by major undercarriage rebuilds every other year.



Wheels of change.

SLEIPNER FINLAND OY

sleipner.com



Lisäarvon konkretisointi



Environmental Benefits

Sleipner Finland Oy
Outi Piisilä
outi.piisila@sleipner.com

WORKING HOURS

When travelling on tracks, excavators operate in maximum load mode. With Sleipner dollies, the excavator operates in low load mode during the entire travel time, resulting in a dramatic reduction in fuel consumption.

	WITHOUT	WITH SLEIPNER	SAVINGS
Time spent travelling	480 h	192 h	288 h
Fuel Consumption	143,040 litres	10,560 litres	132,480 litres
Tonnes of CO2	381.91 tonnes	28.19 tonnes	353.72 tonnes

* Annual

TONNES OF CO2 PER YEAR



SUSTAINABILITY

CO2 emissions while travelling are reduced by up to 80%. With the Sleipner dollies, your organisation can take one giant leap forward, not just in productivity but also in terms of sustainability.

The Sleipner dollies not only help you reduce your carbon footprint, they also reduce the risk of accidents during maintenance, such as oil spills, by allowing the excavator to be transported to the workshop without losing considerable amounts of production time.

Fun Fact!



Lifetime CO2 kilometers compared to low emission hybrid cars: **19,878,434 km**
Amount of times you can drive around the world: **496 times**



Wheels of change.

SLEIPNER FINLAND OY

sleipner.com



Maintenance Benefits

Sleipner Finland Oy
Outi Piisilä
outi.piisila@sleipner.com

MAINTENANCE COST REDUCTIONS

During the lifetime of an excavator, the maintenance of the undercarriage represents the most critical, expensive and time-consuming maintenance operation. With the Sleipner dollies, the undercarriage lifetime is doubled and in some cases even tripled.

50%

Adding the Sleipner dollies to your operations reduces annual undercarriage maintenance costs by at least 50%

10.75%

This corresponds to a total reduction of 10.75% in life cycle costs (LCC)

Hourly life cycle cost reduction (\$/h)	\$43/h
LCC reduction percentage	10.75%
Undercarriage-related labour hours saved during lifetime	1110 h
Undercarriage-related labour costs saved during lifetime	\$88,800
Lifetime savings in undercarriage rebuilds	\$2,565,000
Annual savings in undercarriage rebuilds	\$231,000

EXAMPLE OF PRODUCTION INCREASE

Depending on the environment and ground conditions, our solution offers real value. The more time you put into digging instead of tramming or spending time on maintenance, the more productive your operations will be. Our case calculations are based on your fleet information and demonstrate how much you can improve your productivity in terms of actual values. Take a look and be amazed how at much more you could gain!

Annual increase in production	950,400 tonnes
Production increase	\$855,360

SUMMARY OF KEY BENEFITS

Production increase	\$855,360
Lifetime savings in undercarriage rebuilds	\$2,565,000
Lifetime reduction in CO2 emissions	1,869 tonnes
Payback time	55 months

* Figures used for calculations are based on industry averages.



Wheels of change.

SLEIPNER FINLAND OY

sleipner.com



Kiitos

Outi Piisilä
Project Manager

+358 50 379 7335

outi.piisila@sleipner.com

