

**Sweship Seminar – Challenges ahead for
EU Ship Recycling Regulation –
Inventory of Hazardous Materials**

Company background

- » Established in 2006
- » Metizoft AS, Fosnavaag, Norway
 - » Metizoft Enviro AS
 - » Metizoft Asia Pte Ltd.
 - » Metizoft Ltd (HK)
 - » Metizoft Shanghai
 - » Extensive Global Partner Network (KinShip 2020)



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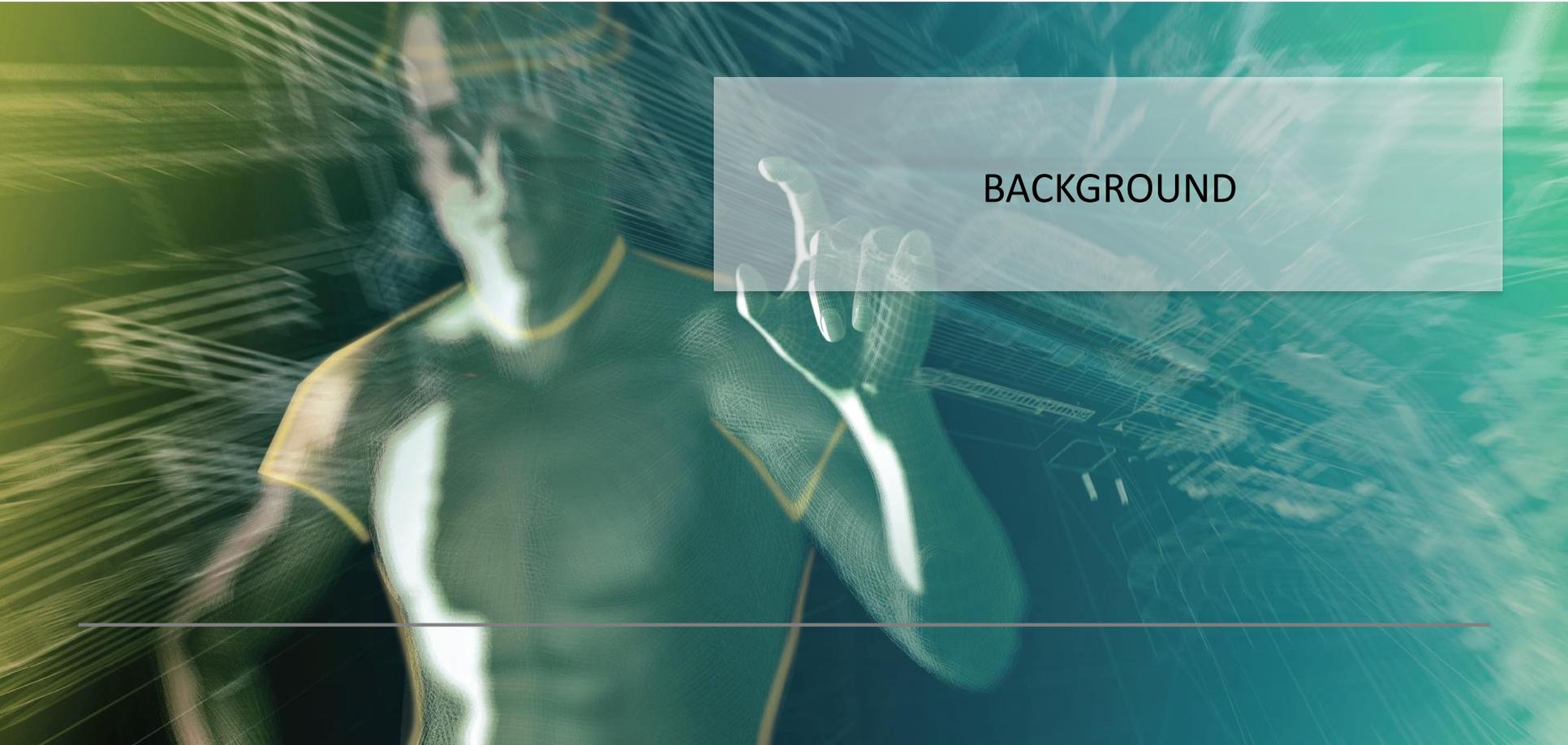
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- » Only Provider of life cycle solution for IHM
 - » Over 1600 New buildings delivered
 - » Over 2000 vessels being kept up to date
 - » Over 950 inspections
 - » AMP & ARP
 - » Ship Recycling
 - » 250 suppliers





BACKGROUND

BACKGROUND AND INVOLVEMENT OF METIZOFT

» Social responsibility within ship recycling

Issues:

- » Child labor
- » Dangerous substances, accidents, diseases, deaths
- » To increase security



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BACKGROUND - REGULATION

- » Hong Kong Convention
- » [IMO \(IHM Guidelines\)](#)
- » The International Convention for Safe and Environmentally Sound Recycling of Ships
- » [EU regulations](#)
- » Port State Control
- » SOLAS
- » [MEPC](#)
- » Class Society
- » Ship owner obligations
- » MARPOL
- » Shipowner Association



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IHM?

A detailed document outlaying all potentially hazardous material onboard a vessel

- Hazardous material is any substance that can pose a risk to the health and safety of people or to the environment as identified and listed by the Hong Kong Convention (2009)
- Inventory of Hazardous Material (IHM) is a document in which all potentially hazardous material onboard a vessel is identified, located and quantified and follows IMO Resolution MEPC. 269(68)



INTRODUCTION OF REGULATIONS

- » What does the IHM consist of?
 - » 3 Parts
 - » Part I – Ship's Equipment & Structure
 - » Part II – Operationally Generated Waste
 - » Part III - Stores
 - » Part I is required for new buildings and vessels in operation
 - » Part II & III is required when vessel is ready for recycling



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MEPC 269(68) Guidelines for the development of IHM

An inventory of hazardous materials in the ship structure and equipment is first priority for all vessels

- IHM is divided in three parts:
 - I. *Ship's structure and equipment*
 - II. *Operationally generated wastes*
 - III. *Stores*
- Part I is handled either during the construction for new vessels or during operation for existing vessels
- Part II and III are developed at the end of the vessel life shortly before it is recycled
- Table A is mandatory for all existing and new vessels while table B is only compulsory for new buildings
- Table C and D are only required for part II and III

| Scope of the inventory of hazardous materials | Shipbuilding & operating | | Preparation prior to recycling | |
|---|-----------------------------------|----------------------------|--------------------------------|--|
| | Part I Structure and Equipment | Part II Operative waste | Part III Stores | |
| Table A Materials Asbestos, PCBs, Ozone depleting substances and organotin compounds | ✓ | | | |
| Table B Materials Heavy Metals (i.e. Lead, Mercury, Radioactive substances) | ✓ | | | |
| Table C Materials Liquids, Gases, Solids | | ✓ | ✓ | |
| Table D Materials Regular consumer goods potentially containing hazardous materials | List of exclusions | | ✓ | |



EU Ship Recycling Regulation - Timeline



EU REGULATION – KEY POINTS AND TIMELINE

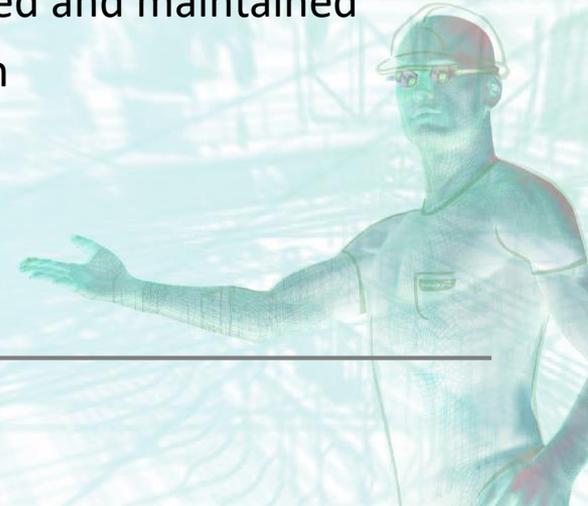


» EU SRR TIMELINE

- » By 31 December 2020, all vessels entering EU MUST have IHM on board
 - » *As of now, approximately 20,000 existing vessels require IHM (18 per day)
- » Vessels already having IHM MUST have the IHM updated and maintained
- » EU Flag vessels' IHM MUST include PFOS as a minimum

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KEY POINT - NEW BUILDINGS

- » To be prepared by shipbuilding yard or third party
- » Effective earliest 31.12.2015, latest 31.12.2018
- » Introduction of 2 new hazardous materials (PFOS and HBCDD)
 - » Make sure your new buildings are in accordance with the latest EU regulations
 - » To avoid adaptation at a later stage
 - » Bring it into the specifications
- » Metizoft`s delivery of IHM newbuildings has been compliant with EU regulations since august 2014.



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KEY POINTS – EXISTING VESSELS WITH AN EXISTING GREEN PASSPORT / IHM

- » Convert to EU Regulations
 - » Follow MEPC 269(68) using the patterns for existing vessels
 - » After onboard inspection an initial survey takes place with the purpose of verification
 - » Available MDs and SDOCs of GP/IHM will be used if the docs are still valid
 - » Reduces the scope of inspection onboard
 - » Less expensive for owners who have kept their GP / IHM up to date

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KEY POINTS – EXISTING VESSELS WITHOUT AN EXISTING GREEN PASSPORT / IHM

- » 31.12.2020
 - » For both EU flagged vessels and third party ships calling EU ports
- » Haz mat expert on behalf of shipowner
 - » Drydock /certification
 - » To be kept up to date after Statement of Compliance



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STANDARD PAIN / FEAR FOR SHIPOWNERS

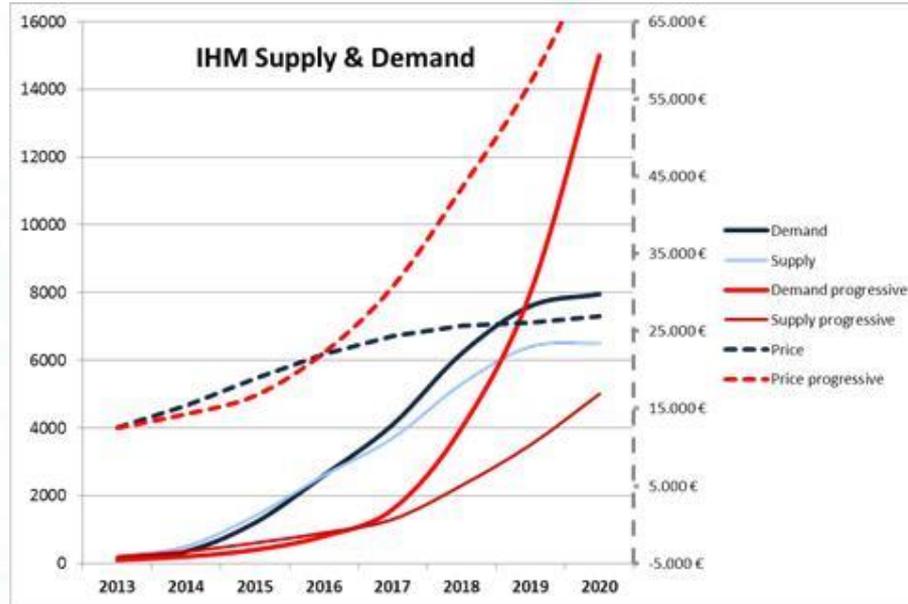
- » Detention at port state controls
- » Reduced dayrate
- » Court cases/recourse - occupational injury (asbestos)
- » Harmful PR which can cause reputational damage and impact business

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IHM SUPPLY & DEMAND





**KINSHIP2020
GLOBAL NETWORK OF
HAZMAT EXPERTS**



metzofe^{INC}
Inspect. Verify. Approve.

WORLDMAP



GLOBAL NETWORK OF HAZMAT EXPERTS



DNV·GL

Certificate

Approved HazMat Expert

Reg. No.: 282324_E

This is to certify that

has participated the seminar "Approved HazMat Expert" **Mr. Jan Rune Dalsøren**

Seminar "Approved HazMat Expert" Forwings, 2015-05-05 to 06 Gerhard Aulbert
DNV GL Representative

and successfully completed the examination for the approval of the "DNV GL Approved HazMat Expert" program.

Examination "Approved HazMat Expert" Forwings, 2015-05-08 Gerhard Aulbert
DNV GL Representative

This certificate is valid until 2018-05-07
Issued at Hamburg, 2015-05-22
This certificate is subject to a revalidation every three years.

| | |
|---------------------|---|
| First Revalidation | Place, Date, Signature: _____ <small>DNV GL Representative</small> |
| Second Revalidation | Place, Date, Signature: _____ <small>DNV GL Representative</small> |
| Third Revalidation | Place, Date, Signature: _____ <small>DNV GL Representative</small> |
| Fourth Revalidation | Place, Date, Signature: _____ <small>DNV GL Representative</small> |

Gerhard Aulbert DNV GL Representative J.R. Gong Yuechen Yueshan Gong

IS-MCTD029-5-010-02-02



Docking Schedule / Class Renewal



On time! 



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CONTINUOUS SERVICE AGREEMENT
WITH METIZOFT

Select Customer ▾

Search for vessels

Important Note To Crew & Class Surveyor

Oceanic Sirius
IHM expires on 30.09.2021



Oceanic Vega
IHM expires on 02.07.2020



Viking Fighter
IHM expires on 25.07.2017



Viking Lady
IHM expires on 29.04.2019



Viking Neptun
IHM expires on 16.02.2020



Viking Prince
IHM expires on 20.03.2022



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[1102-03-293-571-605-01_A](#)

Viking Princess
IHM expires on 12.09.2022



QA History:

- 08.02.2018: 128 Purchase Orders Reviewed - 2...
- 03.01.2018: 53 Purchase Orders Reviewed
- 08.12.2017: 39 Purchase Orders Reviewed

[View Detailed QA History >>](#)

Download Documentation:

- IHM
- IHM Rev.
- MD
- GA Pl.
- Zone Pl.

Select Customer ▾

Search for vessels

Important Note To Crew & Class Surveyor

QA History:

08.02.2018: 13 Purchase Orders Reviewed
 03.01.2018: 33 Purchase Orders Reviewed
 08.12.2017: 67 Purchase Orders Reviewed

[View Details](#)

Download Documents

IHM | IHM Rev. | MD | GA

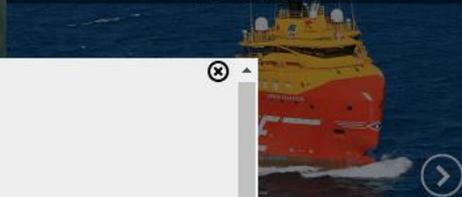
Oceanic Vega

IHM expires on 02.07.2020



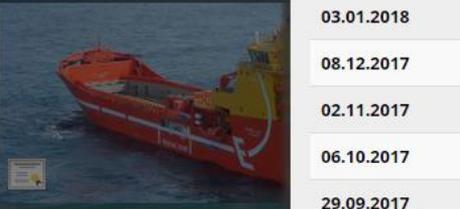
Viking Fighter

IHM expires on 25.07.2017



Viking La...

IHM expires on 29.04.2022



Viking Prin...

IHM expires on 12.09.2022



QA History for Oceanic Sirius

[Download Report in PDF Format](#)

| Date | Description |
|------------|-----------------------------|
| 08.02.2018 | 13 Purchase Orders Reviewed |
| 03.01.2018 | 33 Purchase Orders Reviewed |
| 08.12.2017 | 67 Purchase Orders Reviewed |
| 02.11.2017 | 38 Purchase Orders Reviewed |
| 06.10.2017 | 33 Purchase Orders Reviewed |
| 29.09.2017 | 18 Purchase Orders Reviewed |
| 29.08.2017 | 18 Purchase Orders Reviewed |
| 18.07.2017 | 26 Purchase Orders Reviewed |
| 14.06.2017 | 22 Purchase Orders Reviewed |

Prince

IHM expires on 03.03.2022



Search for vessels

Far Saga

IHM expires on 16.10.2017

Far Sarac

IHM expires on 24.03.2017

Far Senator

IHM expires on 21.03.2018

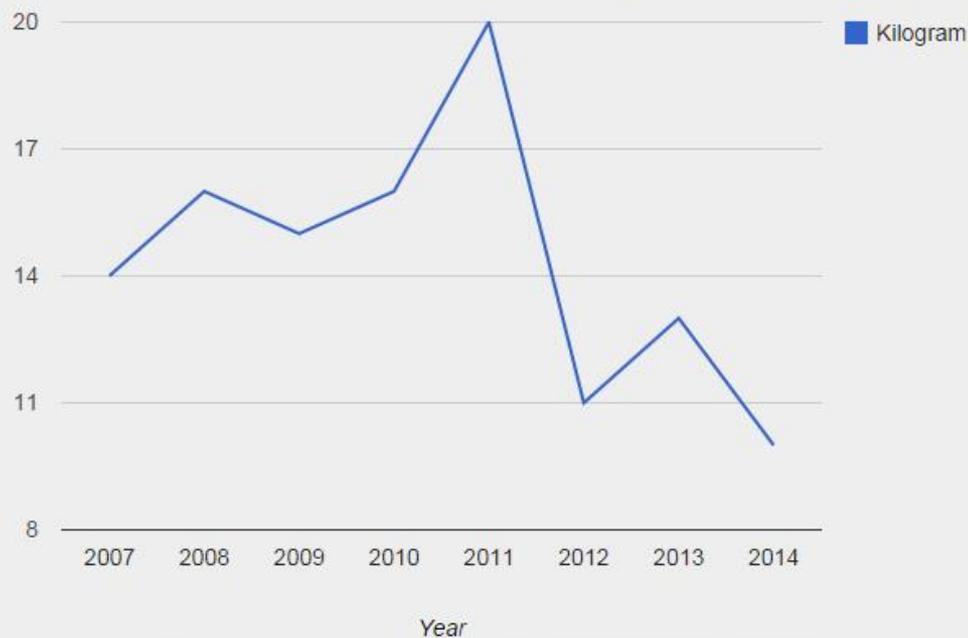
Far Serenade

IHM expires on 31.03.2019

Far Shogun

IHM expires on 29.01.2015

Material History Graph, B-LLC - Lead and Lead Compounds



Inhouse software – handling tool for POs

SUPPLIERS 63

Supplier | Sent Email | Add Task Outlook

Show Incomplete Suppliers
 Show inactive suppliers 139

| IF | S | R | O | C | N | IA | S | E | D | Supplier no | Supplier | Address | Poststed | Telephone | Telefax | Email |
|----|---|---|---|---|---|----|---|---|---|-------------|----------------------------|-------------------|------------------|---------------|---------|-------------------|
| | | | | | | | | | | 160 | Adria Winch d.o.o. | Mostine 11B, | 21000 Split, Cr | +47 951 70 86 | | mate@adriawinch. |
| | | | | | | | | | | 100 | AF Offshore AeronMolier AS | Nulandsvika 8, | 4400 Flekkefjord | 45513795 | | john.kare.vage@af |
| | | | | | | | | | | 150 | Ahlsell Norge AS | P.O. Box 184, | 4065 Stavange | 40482047 | | Kay.Ove.Ovesen@ |
| | | | | | | | | | | 139 | Alfa Laval Nordic AS | Billingstadsletta | 1300 Sandvika | 66 85 80 00 | | mikkel.mowinkel@ |
| | | | | | | | | | | 101 | Allveier AS | | | 91560645 | | geir.olmb@colfaxf |

EDIT SUPPLIER

General | Notes | More

Number: 193 | Orgno: | Has Valid Doc Agreement

Supplier name: Wihelmsen Ship | Address: | Poststed: | Telephone: 0034 91 64 064 92 | Telefax: | Email: luis.cacho@wihelmsen.com | Contact Name: Luis Cacho | Contact Telephone: 0034 607 088

Status: More | Div. Functions

Status: 0 | No response | Response | Doc. collected | Doc. approved

Status melding til skipsveit: Rederi leveranse | Supplier is on email list | Supplier inactive

Dokumentasjon delvis mottatt | Dok Devis Mottatt Date: | Dokumentasjon mottatt og må gjennomgås | Mottatt dato: | Registration completed | Completed date: 6.10.2010

Components | meDAJob | SR | OK | Cancel

Components: Replacement History | Document Folder | Sent Email History | Changelog

Insert | Change | Delete | Replace Component

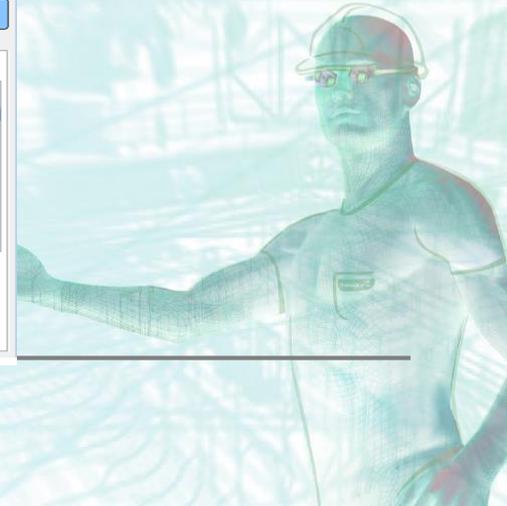
| FLAGS | ItemID | Reg. Date | Suplno | Supplier | SFI | Description | Eng Description | Zone | Description |
|-------|--------|------------|--------|----------------|-----|-------------------------|-----------------|------|---------------|
| | 351 | 04.10.2010 | 190 | Wihelmsen Ship | | Gas Distribution System | | 420 | Ac 1. Ox Room |

Registered Substances

| E | Sorting | Quantity | Unit | Note | Location |
|---|---------|----------|------|-----------|-----------------------|
| | A6Te | 26.250 | Kg | | Weld Gas Distribution |
| | A19 | 31.000 | Kg | Acetylene | Weld Gas Distribution |
| | A19 | 60.000 | m3 | Dyogen | Weld Gas Distribution |

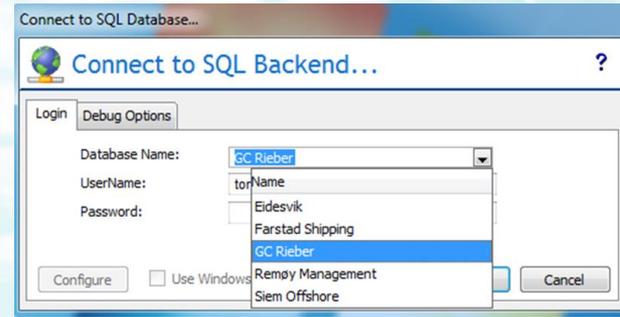
Show all
 Not completed
 Completed
 Show inactive

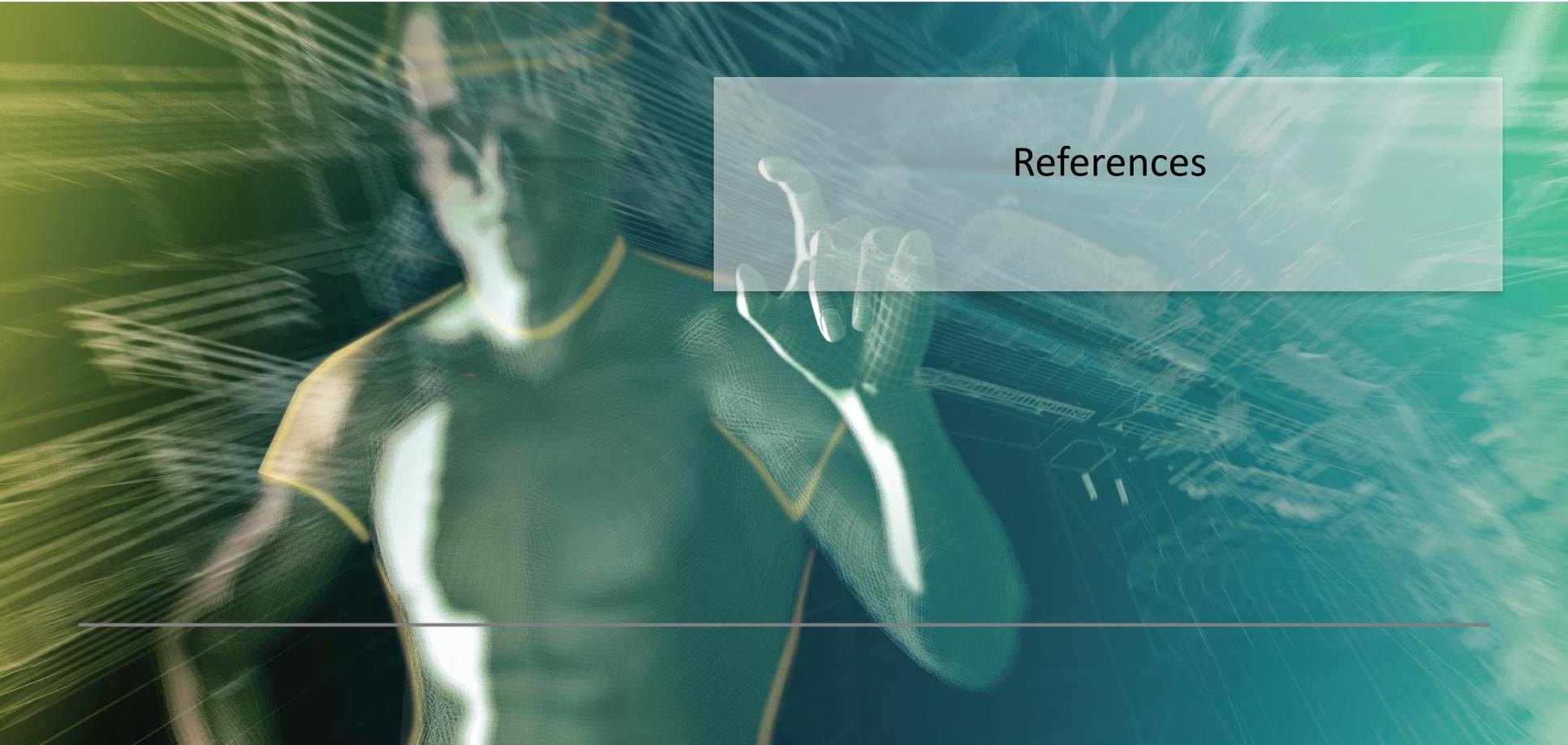
Attention Level: 0



Key Resources - METIZOFT

- » Hazmat Experts
- » Project / Process Experts
- » Quality Experts
 - » GP Application
 - » PO Explorer
 - » Metizone
 - » Large inhouse database





References

Latest references / jobs



Latest references / jobs



Latest references / jobs

VIKING LINE

THOME
GROUP

 **Torvald Klaveness**

Abacus

 **EPIC GAS**
DELIVERY UNDER PRESSURE

 **中外运航运有限公司**
SINOTRANS SHIPPING LTD.

 **MAERSK**
TANKERS


Fred. Olsen
Cruise Lines

 **R**

 **POSH**
Excellence Through Safety

PCI


V.Ships


STAR CRUISES


OMNI

 **misc**





Britoil Offshore Services Pte



Eidesvik
Your Partner in Shipping





KONGSBERG



Benefits for owner in Cooperation with Metizoft

- » Insurance
 - » Reduced claims
 - » Renewal of certificate
 - » No unexpected costs
 - » No detention in Port State Control

- » Positive reputation
 - » Employees
 - » Environmental groups
 - » Clients / Passengers
 - » Strengthening of Competition parameters
 - » Classification Society
 - » Corporate Social Responsibility (CSR)

- » HazMat updated at all times in accordance with IMO/EU regulations

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Benefits for owner

- » Electronic access to own IHM Database
- » Trend analysis on Hazardous Materials
- » Tailor-made textlines in your PO`s
- » Working methodology for 100 % outsourcing
- » Input on how green your value chain is
 - » Quality assurance Asbestos
 - » Flow diagram for your QA
- » Diploma / Statement at office
- » Diploma / Statement to all vessels
- » Positive public image as responsible operator



Why choose Metizoft?

- » One stop shop, manages your regulatory obligations
- » Outsource to a dedicated professional firm
- » We act as Designated Person on behalf of our clients
- » We work closely with regulatory agencies and class to anticipate and manage all needs upfront
- » Avoid costly internal staffing needs and failures

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metizoft®

Inspect. Verify. Approve.

METIZOFT – THE COMPLETE SOLUTION FOR LIFECYCLE COMPLIANCE

