

PIANC seminar

ENVIRONMENT AND SAFETY WITHIN MEGA/SUPER YACHTS MARINA'S

Albert Willemsen

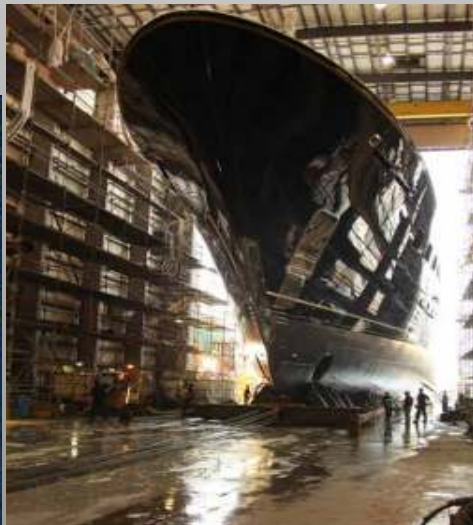
ICOMIA Environment Manager



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Relation Global legislation for the Marine Industry and safety

- Environmental legislation impacts almost all aspects of the marine industry, particularly manufacturing, and operations such as boatyards and marinas.
- On a global scale, many countries are integrating “sustainable processes” into their maritime policies and into environmental legislation and regulations.
- **I like to explain the relation between environment and safety with a few positive examples which can be used for the design Mega-Super Yacht Marina**



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presentation

1. ICOMIA the voice of the recreational marine industry worldwide
2. ENVIRONMENT AND SAFETY WITHIN MEGA/SUPER YACHTS MARINA'S
 - A. Global trends and figures
 - B. Definition Super Yacht
 - C. Developments
 - D. Ideas and examples for design
 - E. Questions



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Let me first introduce you to ICOMIA and myself

- **My name: Albert Willemsen**
- **Appointed by ICOMIA as Environment Manager**
- **Involved with ICOMIA Environment policy since 1989, incl. Super Yachts.**
 - **Background**
 - **Aerospace Industry**
 - **First experiences with environmental issues in 1979, reviewing modifying test equipment of General Dynamics (F 16) within scope of strict Dutch environmental rules in the dense region of Amsterdam**
 - **Since 1988 Boating and Super Yacht Industry, 1991 in PIANC**
 - **Drafted part of Blue flag rules for Marinas (1995)**



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**International Council of Marine Industry Associations (ICOMIA)
represents the voice of the recreational boating industry worldwide.
The focal point of the industry since 1967.**



**No less than 34 national federations across the world are
full members of ICOMIA today.**

11 committees within ICOMIA

Marina Committee well known within Marina Industry

ICOMIA World Marinas Conference in Singapore last Month was a great success

“The ICOMIA Super Yacht Department is important source for this Seminar”



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ICOMIA the voice of the recreational marine industry worldwide

- ❑ ICOMIA presents a strong and united voice in representing the industry's best interests when dealing with international authorities and major organizations
- ❑ Provides for its members
 - A forum to consider issues of common concern
 - Collect and supply relevant data and formulate agreed policy.
 - Seeks to break down all barriers to trade
 - removal of unnecessary or unviable legislation.
 - Promotes awareness including the improvement of boating safety.
 - Maintains close dialogue with international bodies, national governments and other regulatory authorities
 - Supports its members in every way possible

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ICOMIA the voice of the recreational marine industry worldwide

- Promotes fun of boating
- Promotes the concept of recreational boating as being in harmony with a clean and attractive marine environment.
- **Cares for the environment and safety aspects as part of our core values.**
- Why? Recreational Marine and Boating Industry needs safe infrastructure and healthy & clean water



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Global Environmental Legislation for the Marine Industry

Why important? Affect your products/services and business

- Global Climate Change as a result of GHG's will have probably large scale impacts on the Marine Environment as well on the Fresh Water environment
- According to the UN on Global basis together with climate change, loss of biodiversity is a major environmental threat
- In US (Clean Air Act) Air related environmental are dominating the product related environmental legislations
- In EU Water related environment legislations are dominating the product related environmental legislations.

As mentioned before I will explain the relation of these environment topics to safe navigation

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Global trends

- Decreased emissions and pollutions of P(H)S's from point sources will probably be seen rather soon, good news! **But the developments of diffuse sources according to National and International Authorities listed as one of the most problematic environment and safety issues (AF paints & paint application; effect of engine emissions, historical pollutions, fuel spills pollution from outside Marinas etc.) “together with the loss of biodiversity issue” (UN-IMO)**



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Global trends

- Sustainable practices are common practice these days within the developments of International Environmental Policy & Legislations. **But there is a lack of definitions for example of “sustainable use of Marine and or Inland waters”**. “While industry are developing sustainable products and processes, see example: **Sustainable Sailing Yacht for long journeys; “CO2 neutral”**”



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What is a Super Yacht

Definition

- Super yachts are usually defined as recreational vessels greater than 25m in length and up to 500 tonnes in weight, registered either for private use or charter.
 - The Super Yacht building sector is enjoying a growth rate of more than 70% since 2003 and European production is “still” most important with 13 of the world’s top 20 Super Yacht Builders located in Europe.
 - **Paint is one of the main topics/issues within Super Yacht!**

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Facilities needed:

- Enough electrical power
 - **Solar power?!**
- Water supply
- Waste water
- Fuel (climate change proof)
- Repair facilities
- Access/fast transport to airports
- Access to marina (depth)
- Good navigation facilities



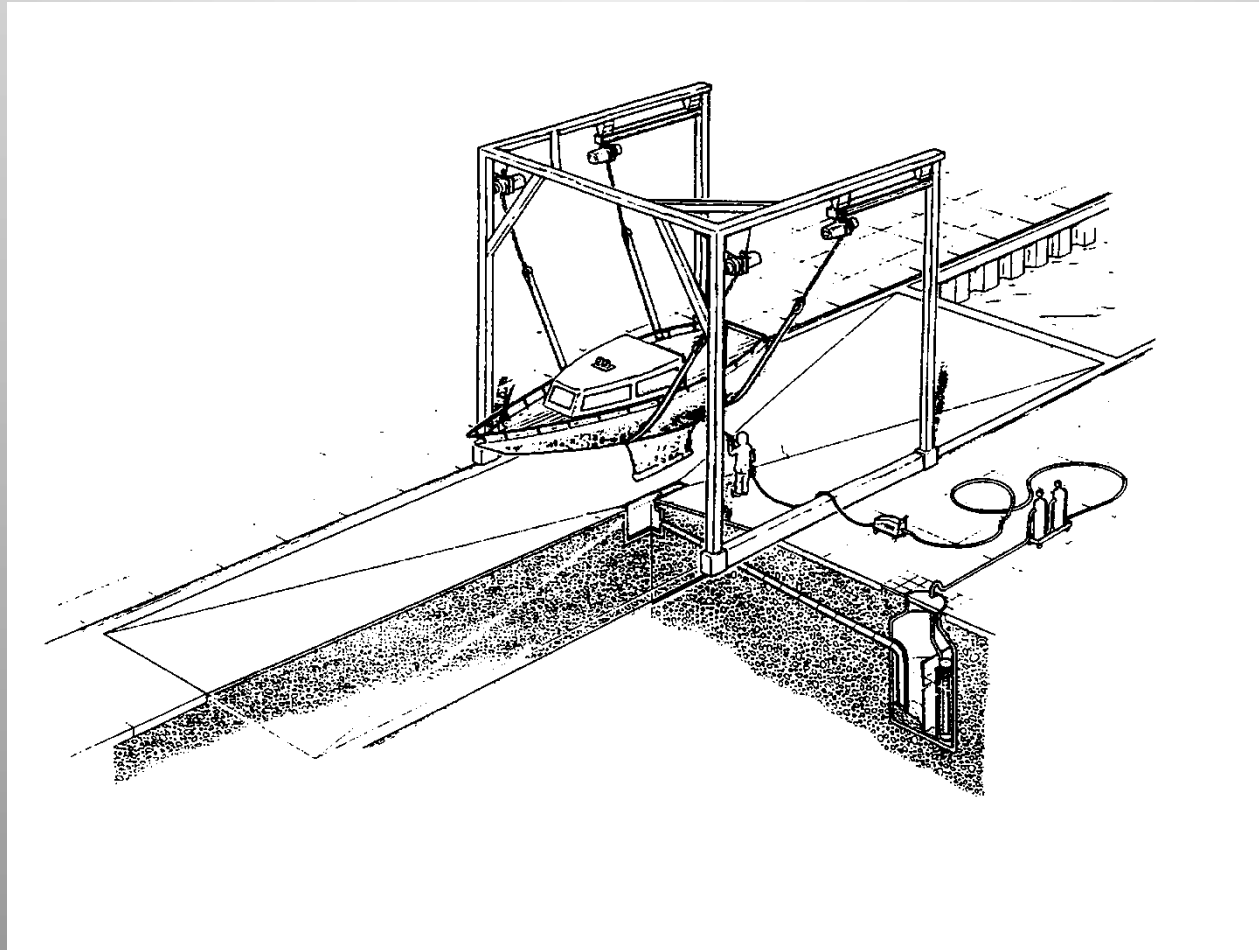
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- Paint a main topic and issue within Super Yacht World
- Loss of biodiversity according to UN Global environment problem no. 2
- Diffuse sources as well a main issue (AF paints etc.)
- **Areas for small or normal repairs and paint activities should be considered**



AF removal place

important for AF removal and applying



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Relation loss of biodiversity and waste water

- Control and Management of Ships' Bio-fouling to minimize the transfer of invasive Aquatic Species (IMO convention)
- Control and Management of Ships' Ballast Water and Sediment (IMO Convention)
- Preventing pollution caused by emissions (see US – and EU regulations and the IMO Conventions)
- Sustainable practices (waste water treatment)
- In coordination with other Global regulations for example reduction or Phasing out of Priority and Hazardous Substances will potential impacts production processes. Requires implementation of Best Available Techniques (BAT)

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Paints and VOCs

Do you want this in your marina???

Paint, cleaners, thinners contains mostly VOCs (Volatile Organic Compounds)

- VOCs are labeled as Green House Gases and impacts the lower Ozone layer
- International: reduction of VOCs, includes reduction of VOCs and HAPs within Boating - and Super Yacht Industry



Other purpose of AF removal place



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Global Environmental Legislation and fuel!!

Global Climate Change - Exhaust Emissions (CO₂)

- IMO Conventions and Regulations are focused on NO_x's and Sulphur (IMO: growing importance as well for us)
- US Clean Air Act (whereby for example in 2009 ME businesses has to report emissions of carbon dioxide CO₂, nitrous oxide N₂O, and methane CH₄)
- EC besides the VOC's, CO₂ and NO_x's are putting extra attention to diffuse sources, a development followed in other parts of the World
- The combination can have serious implications, Super Yachts Industry needs to prepare themselves, but at least very clean fuel because of the future after treatment

harmonising important

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fuel stations climate change proof

- **Clean fuel needed for Super Yachts**
- **Maneuvering is a important safety item**
- **Put the fuel station at the most accessible area of the marina**
- **Make sure it is climate change proof**
- **Safe in use and easy to maintain**
- **If not economical; possibilities to sell the complete unit**

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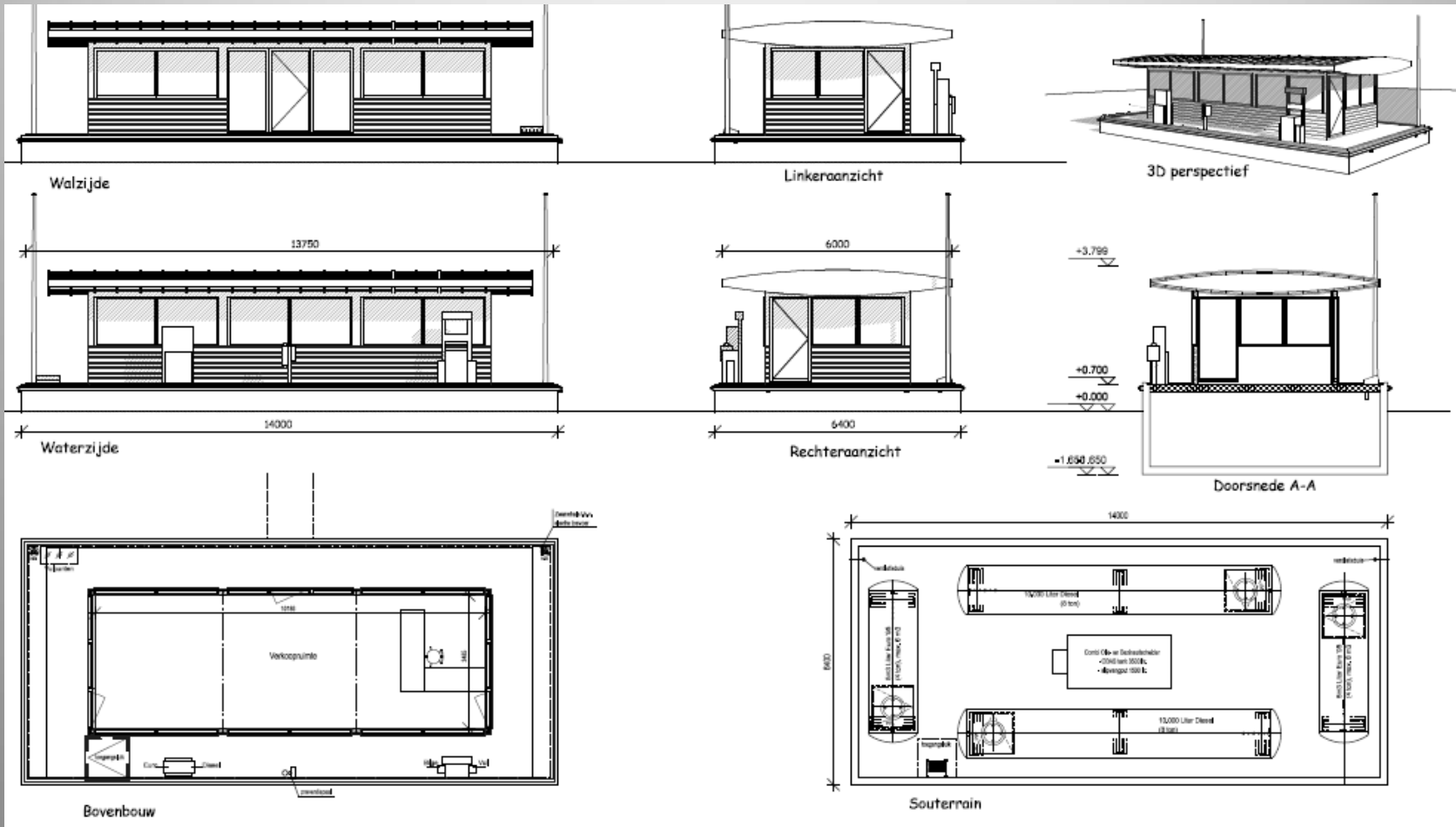
Exists for more than 16 years in The Netherlands

Is certified for another 15 years

Waste water reception systems can be integrated



Floating Fuel Station



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- Access to the marina;
- Enough depth
- Dredging expensive
- Avoiding dredging
- Delfts Hydraulik study with Dutch Marina Industry, anti-slib (avoiding sedimentation in marina's)
- PIANC report includes Delft study
- Use it, put in design the current deflecting wall etc.

Conclusions

- **Our Industry need clean and healthy water**
- **Use the Global trends positively**
- **Environment rules can be translated to positive aspects within the design**
 - **Will potentially effect your products and businesses**

➤ **QUESTIONS!?**