

Naval Ship Code - militær SOLAS

Harland Seminar 2010

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5 November 2010

Innhold

Hva er SOLAS?

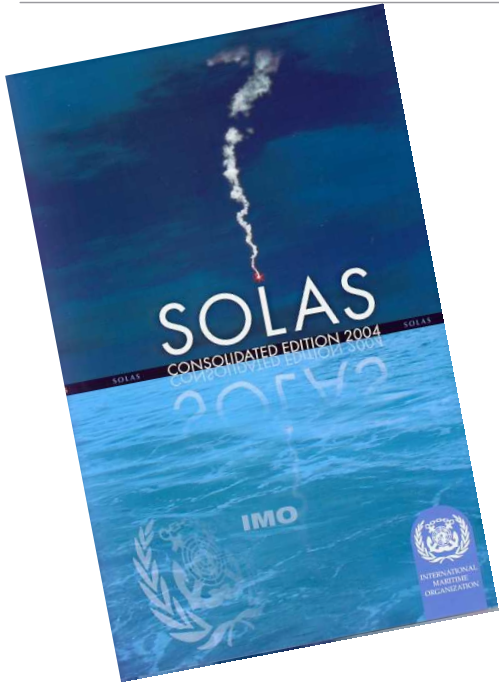
Hva er NSC?

Bruk av NSC

Prosesen i Norge

Konklusjon og avslutning

2. Hva er SOLAS?



SOLAS Konvensjonen:

En folkerettslig bindende avtale mellom verdens skipsstater

- Målsetning: sette minimumsstandard for konstruksjon, utstyr og operasjon av skip
- Omfatter skip i internasjonal trafikk
- Flaggstatene er ansvarlig for overholdelse av kravene
- Bevis for oppfyllelse gjøres ved sertifikater
- Stater kan inspiserer andre staters skip (Port State Control)

Pr Oktober 2010:

159 kontraktsstater (+ territorier)

Representerer 99.16% av verdens handelsflåte (gross tonnasje)

SOLAS Responsibility & Work

Chapter I - General Provisions

Chapter II-1 - Construction - Subdivision and stability, machinery and electrical installations

Chapter II-2 - Fire protection, fire detection and fire extinction

Chapter III - Life-saving appliances and arrangements

Chapter IV - Radiocommunications

Chapter V - Safety of navigation

Chapter VI - Carriage of Cargoes

Chapter VII - Carriage of dangerous goods

Chapter VIII - Nuclear ships

Chapter IX - Management for the Safe Operation of Ships

Chapter X - Safety measures for high-speed craft

Chapter XI-1 - Special measures to enhance maritime safety

Chapter XI-2 - Special measures to enhance maritime security

Chapter XII - Additional safety measures for bulk carriers

SOLAS forutsetter
at dette gjøres av klasseselskap

Klassen:

-utgir klasseregler

-utfører klassing av skip

Oppsummering - SOLAS

- Separate Roller (Flaggstat, Eier, Klasse...)
- Klare ansvarsområder
- En felles praksis
- Ingen avvik
- Klasse er obligatorisk

= "Free Trade"

2 Hva er Naval Ship Code?

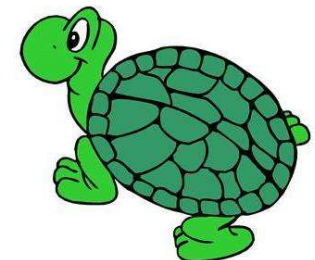
- Startet som NATO Specialist Team under NG/6
- Gjøres nå som Joint Industry Project International Naval Safety Association (INSA)
- Utgis av NATO som ANEP 77
- Siste revisjon Edition 2

Innhold

Oversikt

Bruk

Bakgrunn



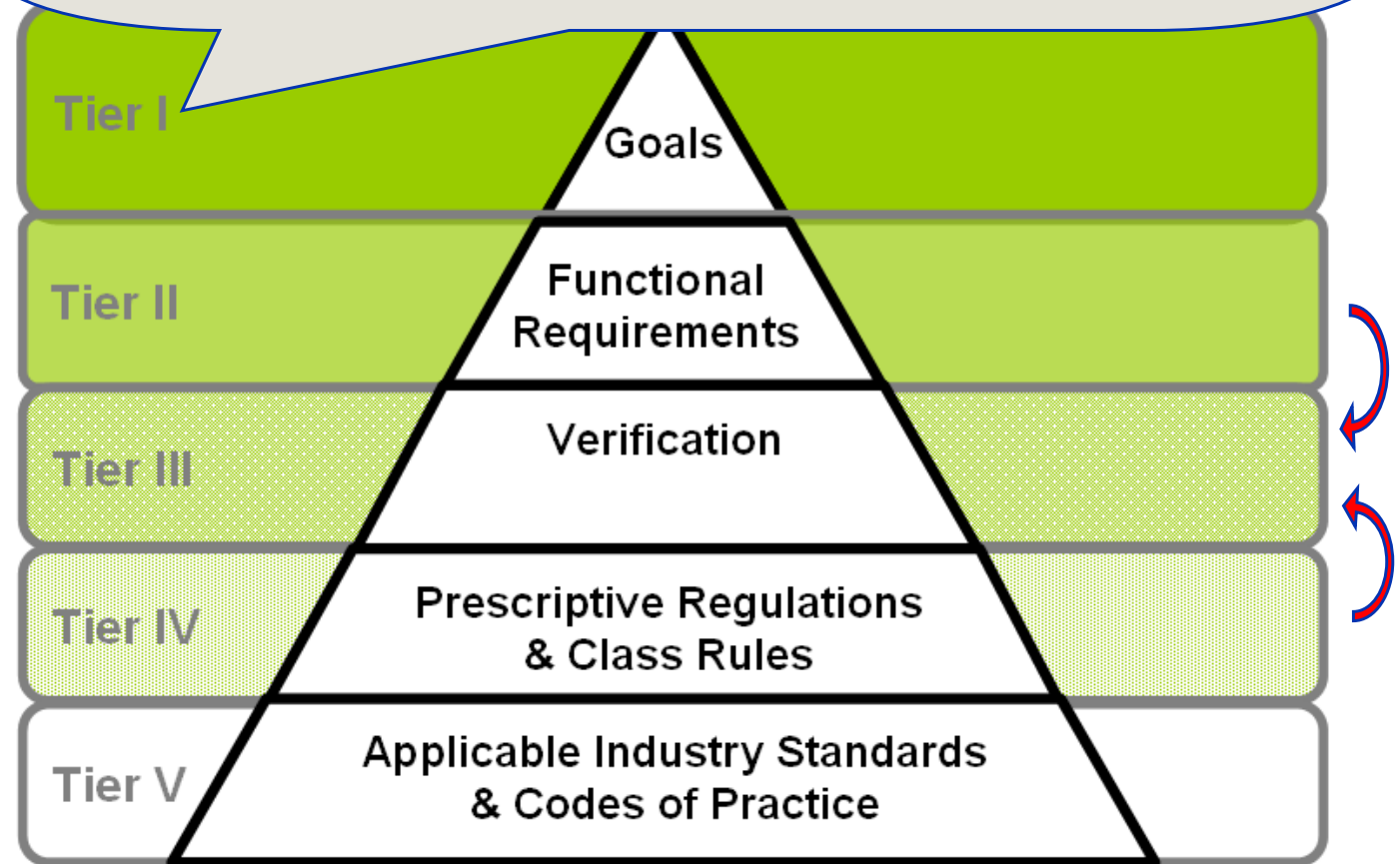
Utgangspunktet

IMO Goal based standards

"ships are to be designed and constructed for a specified design life and to be safe and environmentally-friendly, when properly operated and maintained under the specified operating and environmental conditions, in intact and specified damage conditions, throughout their life"

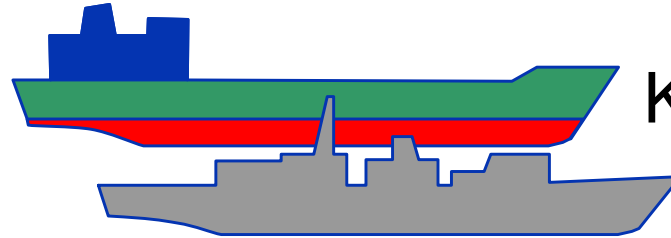
IMO

Class etc.



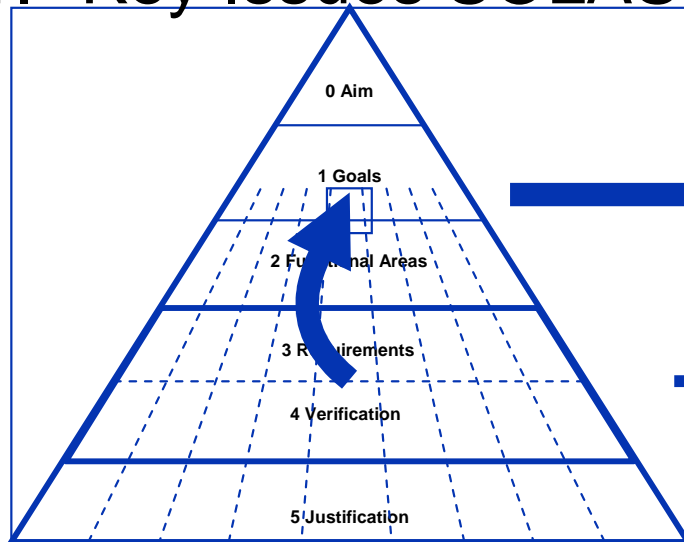


2. Similarities and differences:



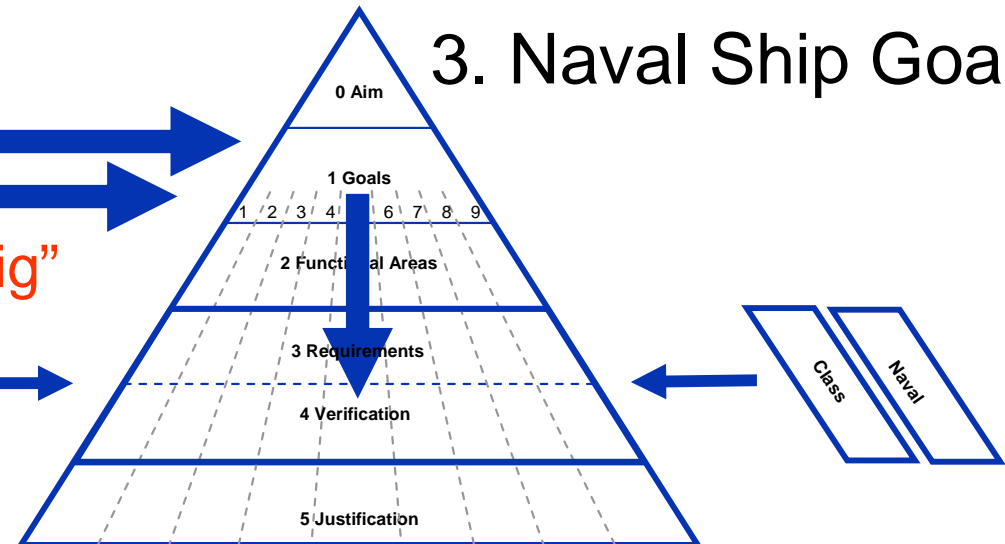
Key issues Naval Ships

1. Key Issues SOLAS



IMO (SOLAS/HSC)

3. Naval Ship Goals



NATO NSC

"likeverdig"

Utgangspunkt - filosofi

IMO MSC meeting 79:

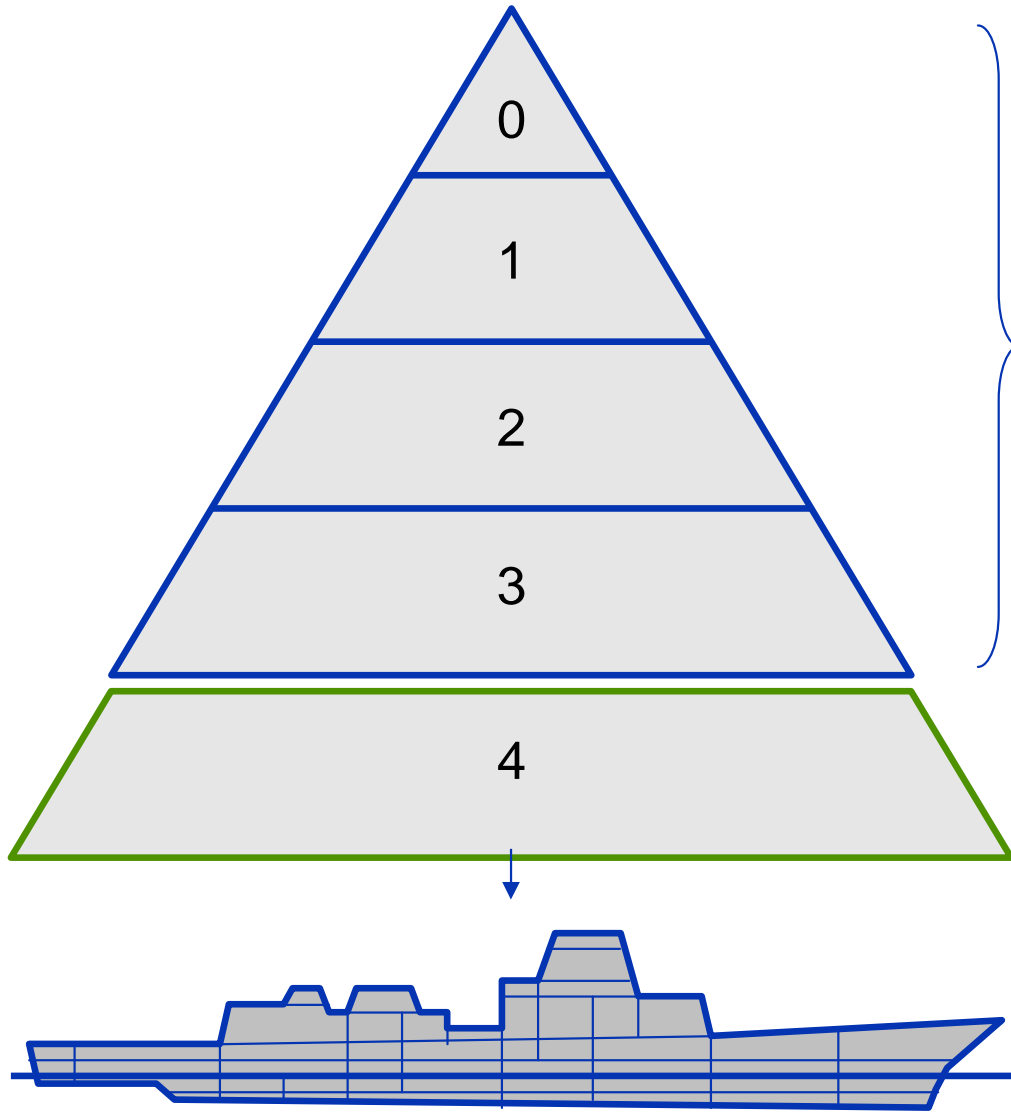
”Ships are to be designed and constructed for a specific design life to be safe and environmentally friendly when properly operated and maintained under the envisaged operating and environmental conditions, in intact and foreseeable damage conditions throughout their life”.

Dvs: skipet designes for en definert bruk og forventede skadekondisjoner

NSC - Oversikt

1. General Provisions
 2. Structure
 3. Buoyancy, Stability and Controllability
 4. Engineering systems
 - 5.
 6. Fire Safety
 7. Escape, Evacuation and Rescue
 8. Radiocommunications
 9. Navigation and Seamanship
 10. Dangerous Cargoes
- Annex A. Guide to the Naval Ship Code

Nivåer



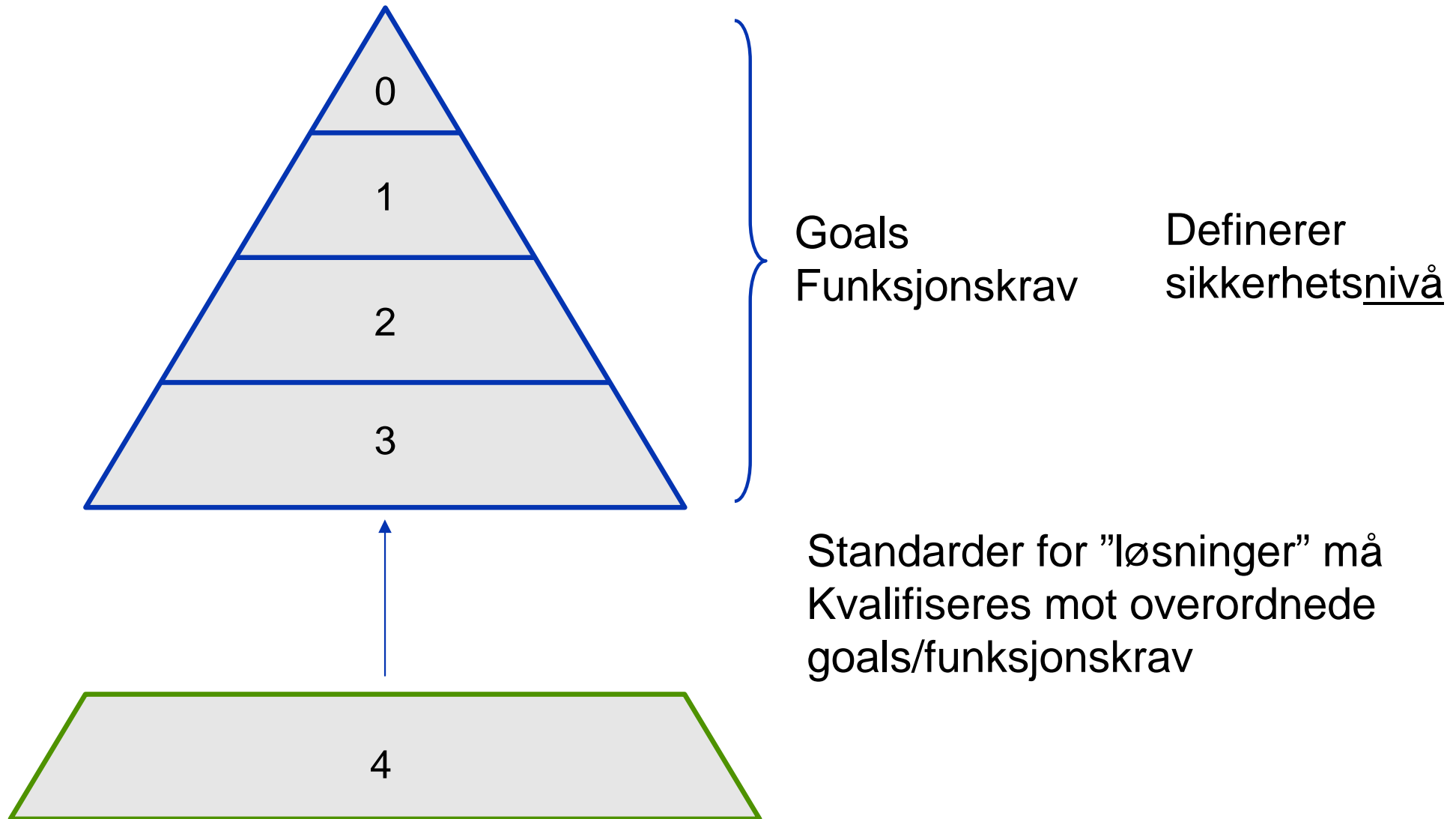
Goals
Funksjonskrav

Definerer
sikkerhetsnivå

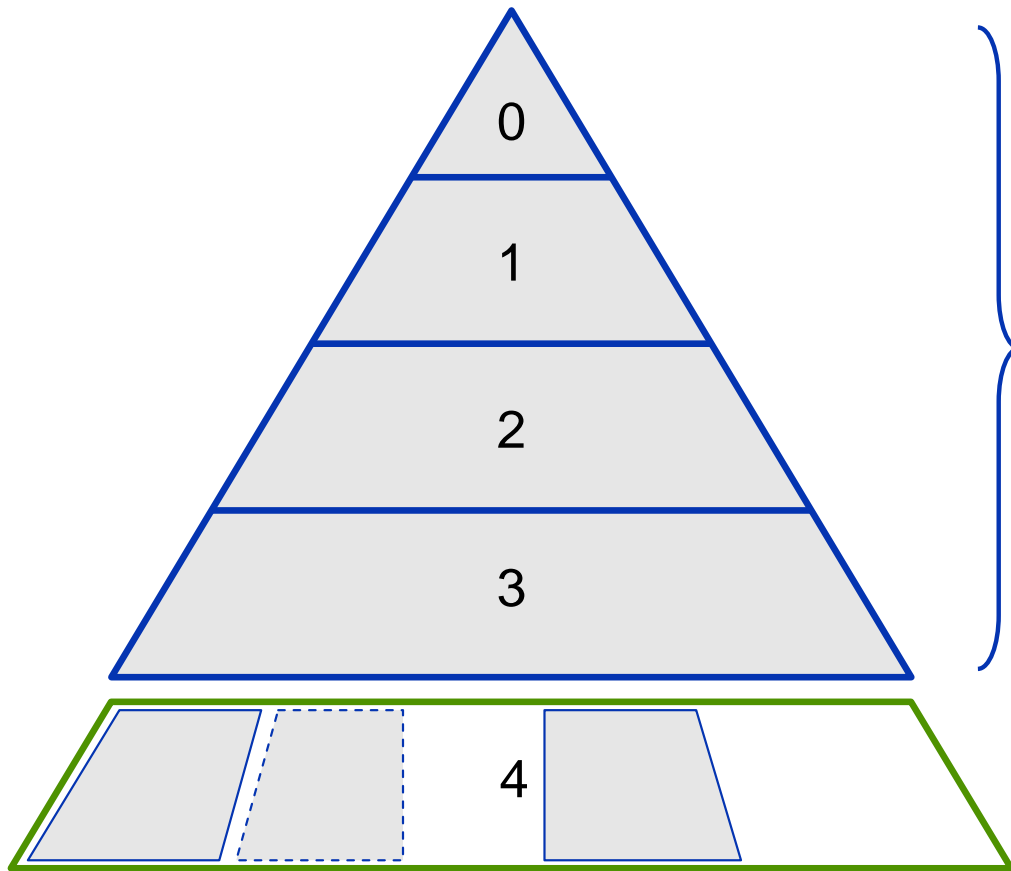
”Løsninger”

Preskriptive krav:
-Klasseregler
-NSC krav
-Nasjonal standard

Nivåer



NSC og klasse



Goals
Funksjonskrav

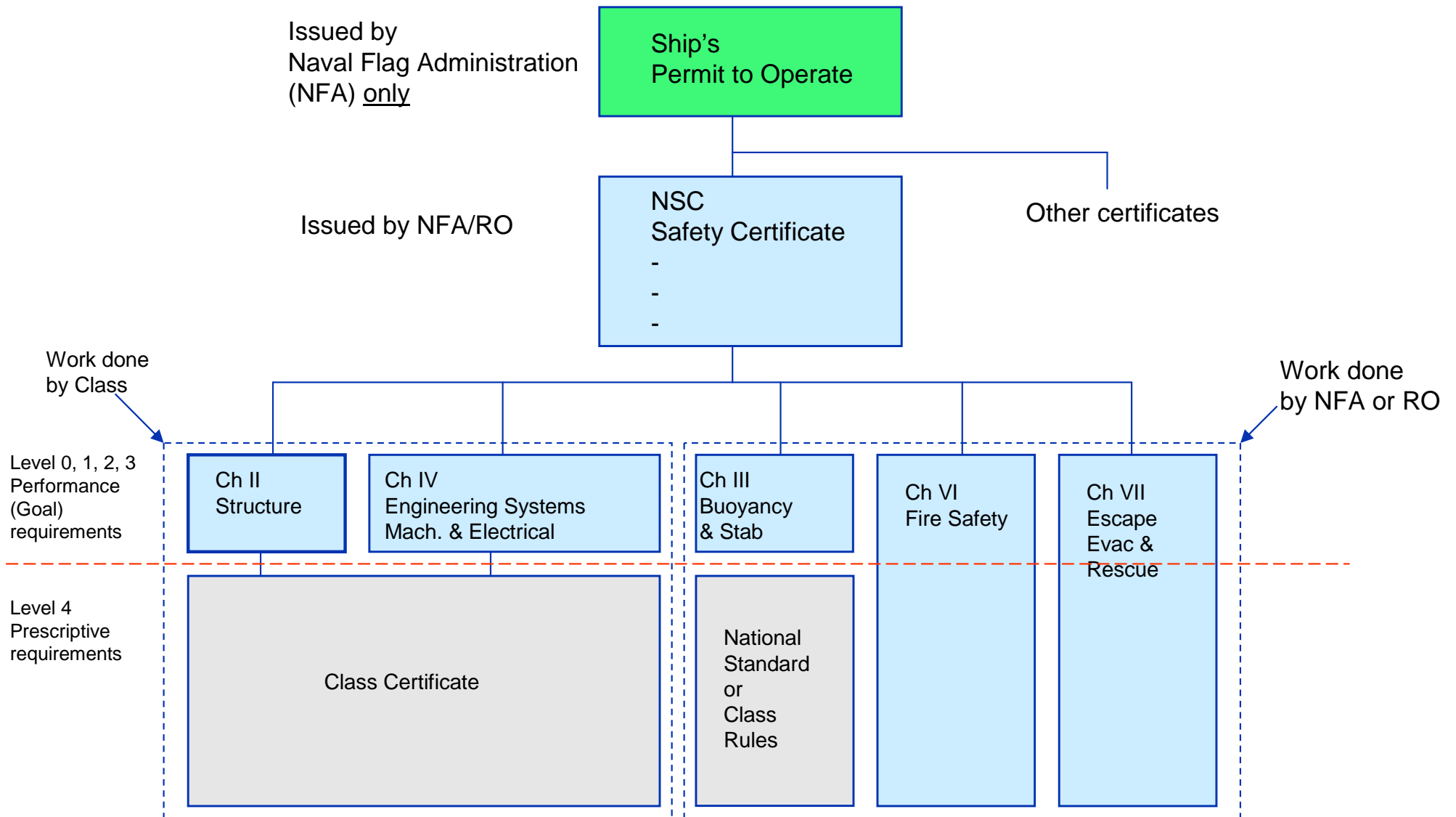
Definerer
Sikkerhetsnivå
for militært skip
(i fred)

Klasseregler
for marinefartøy

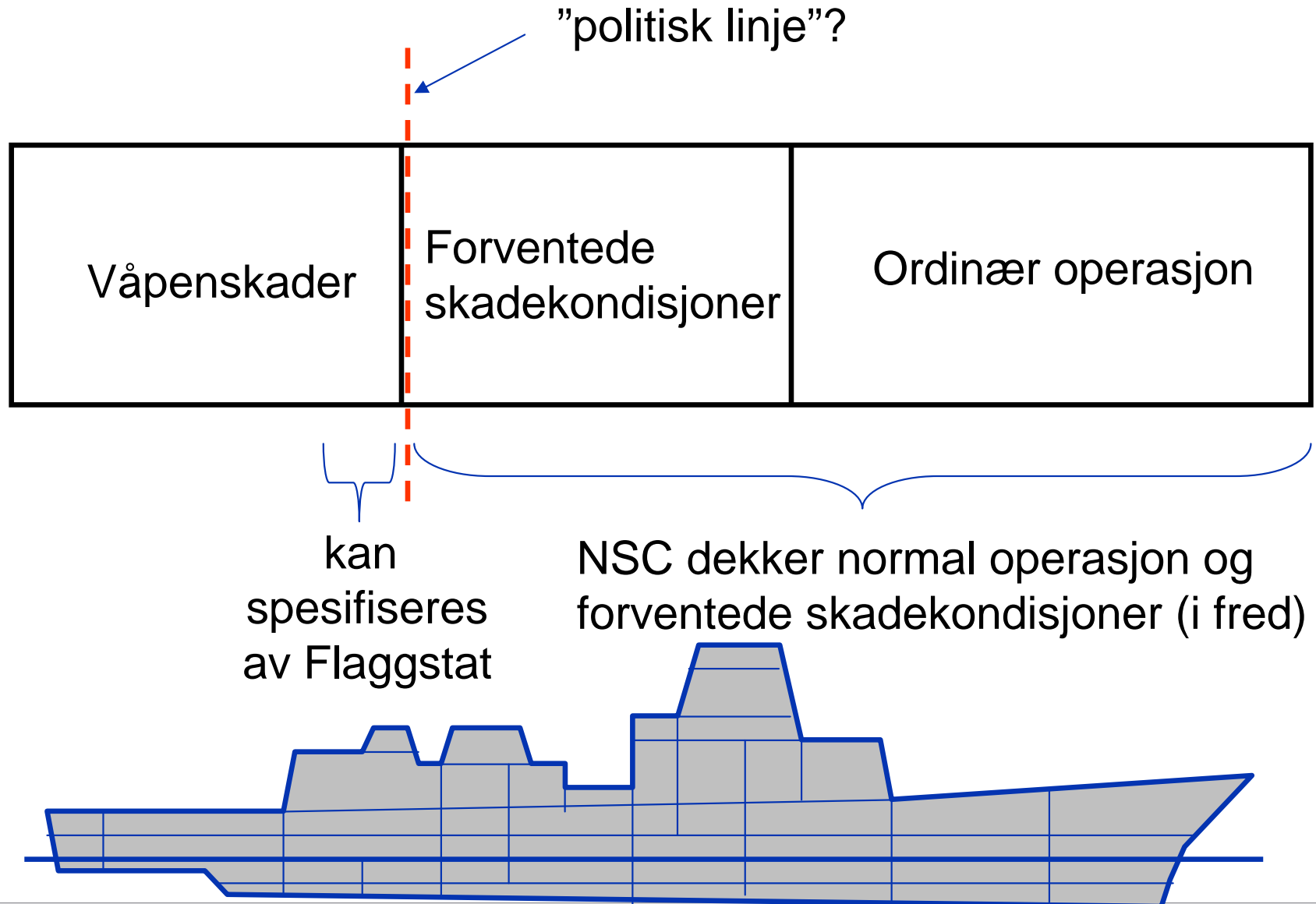
skrog (stabilitet)

maskin
elektro
automasjon

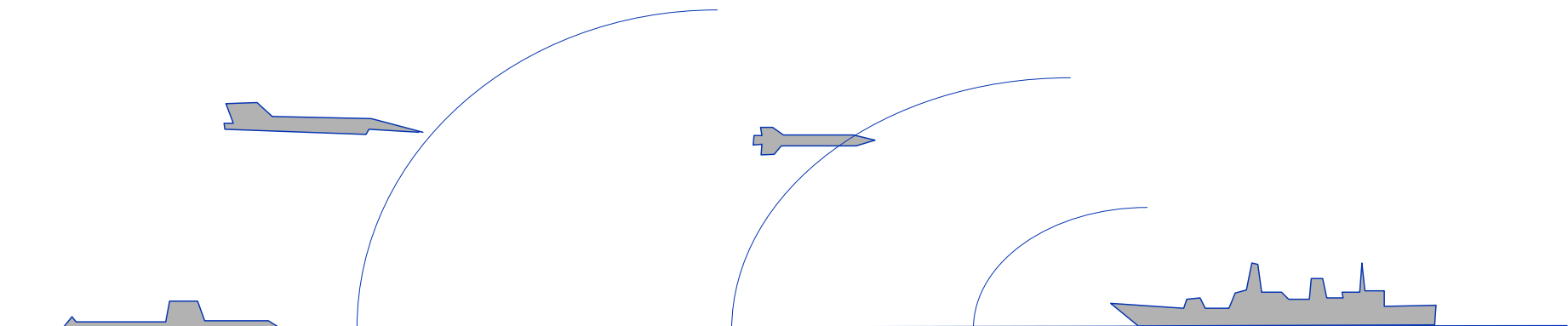
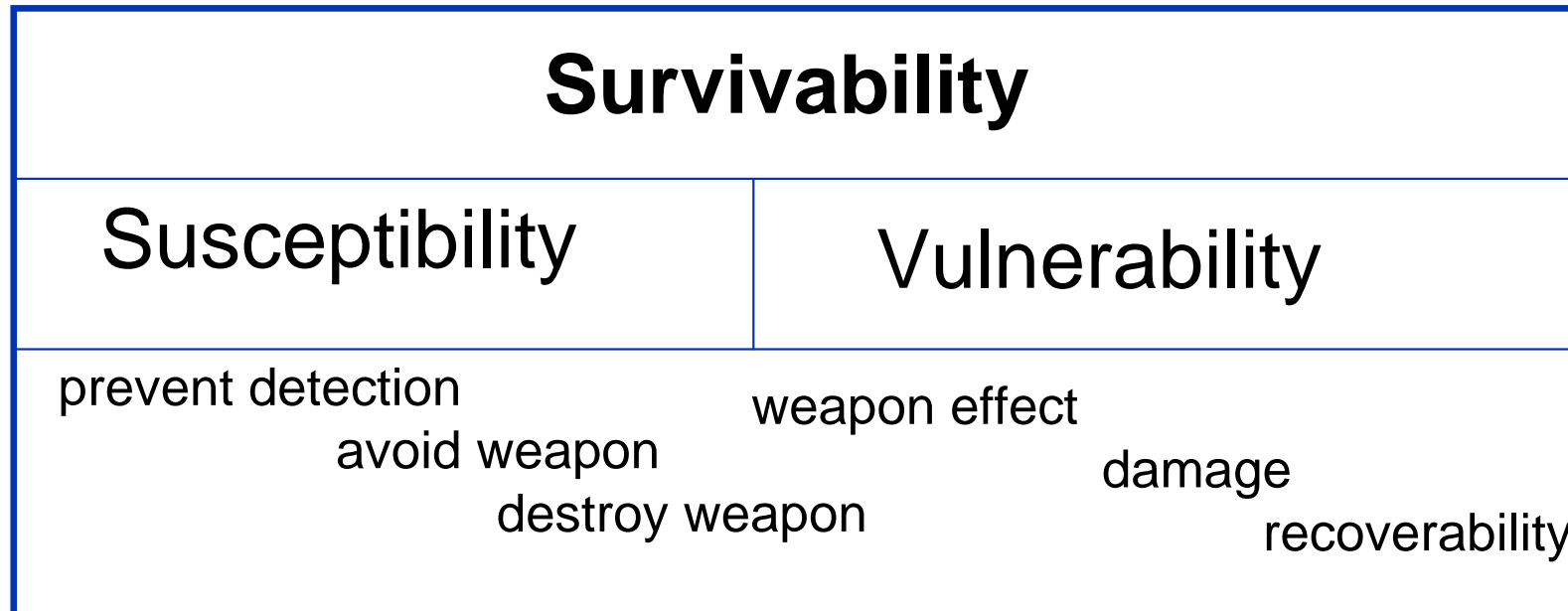
Naval Ship Code – oversikt pr idag



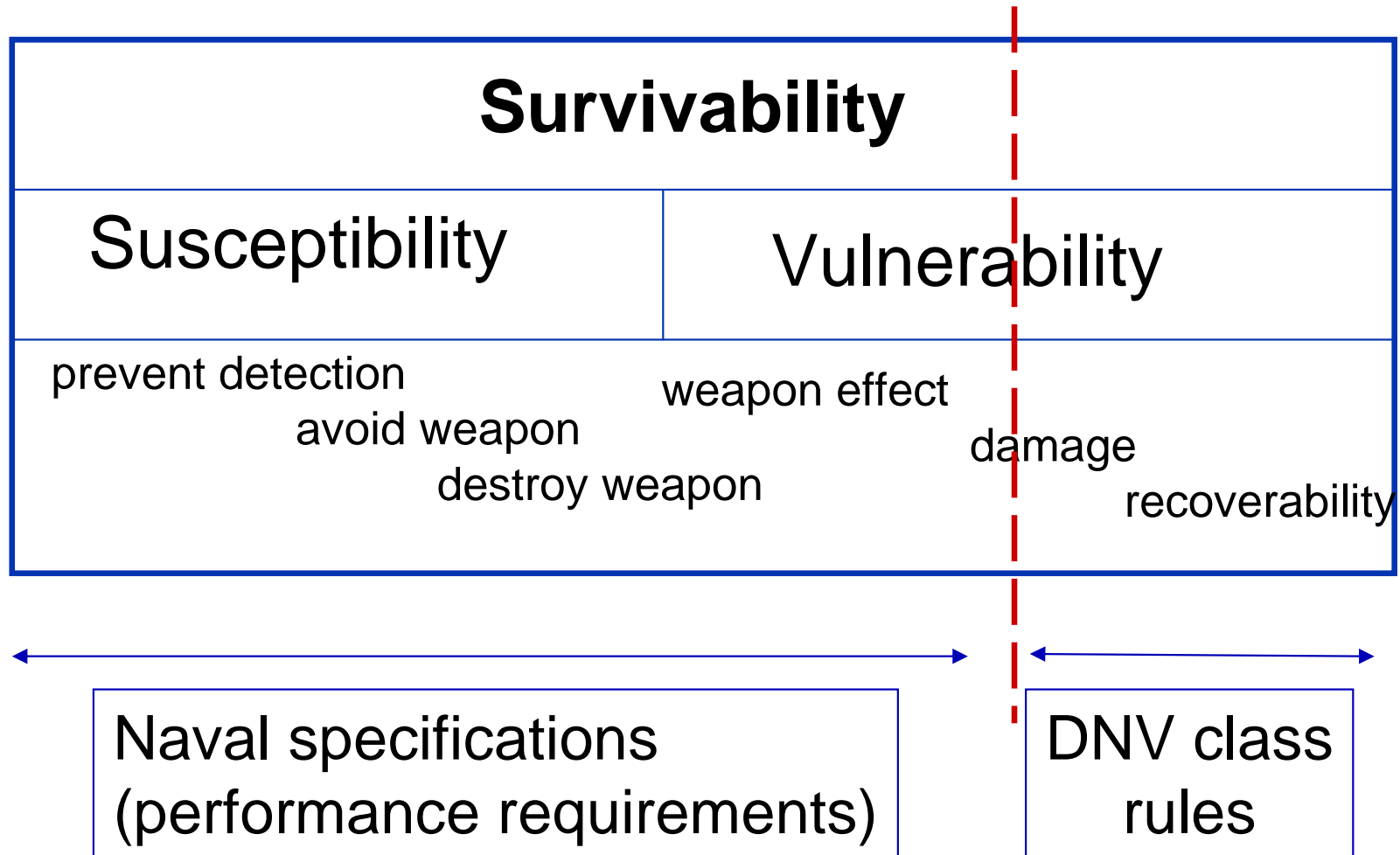
NSC og våpenskader



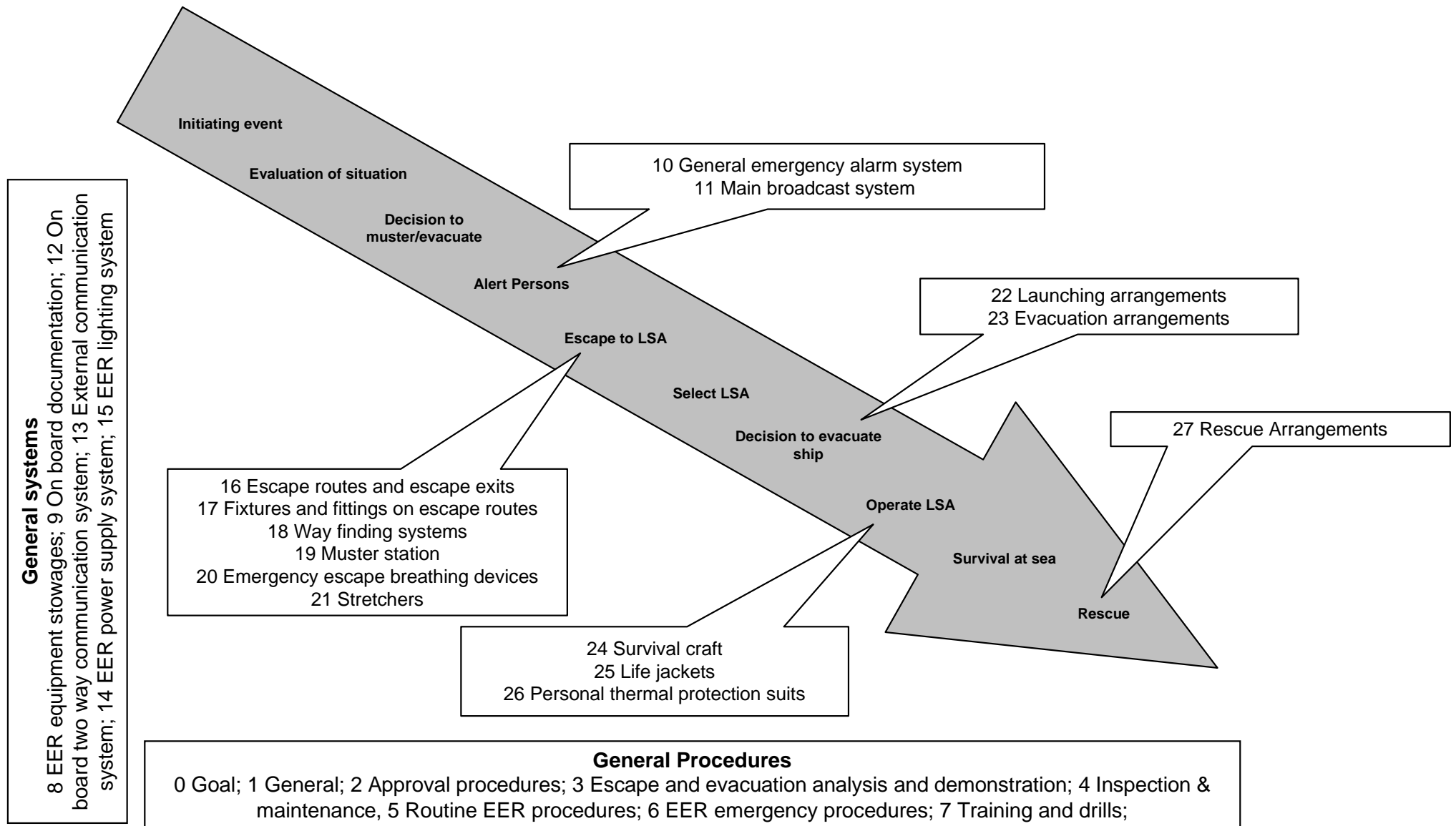
DNV regler - våpenskader



DNV regler - våpenskader



Eksempel: Kapittel 7 evakuering



Eksempel: Kapittel II Structure

	Goal The structure shall be designed, constructed and maintained to:
1	Provide weathertight and watertight integrity
2	Carry all loads that may be foreseen
3	Permit embarked persons to carry out their duties safely
4	Protect the embarked persons and essential safety functions in the event of all foreseeable emergencies and accidents at least until the persons have reached a place of safety or the threat has receded.

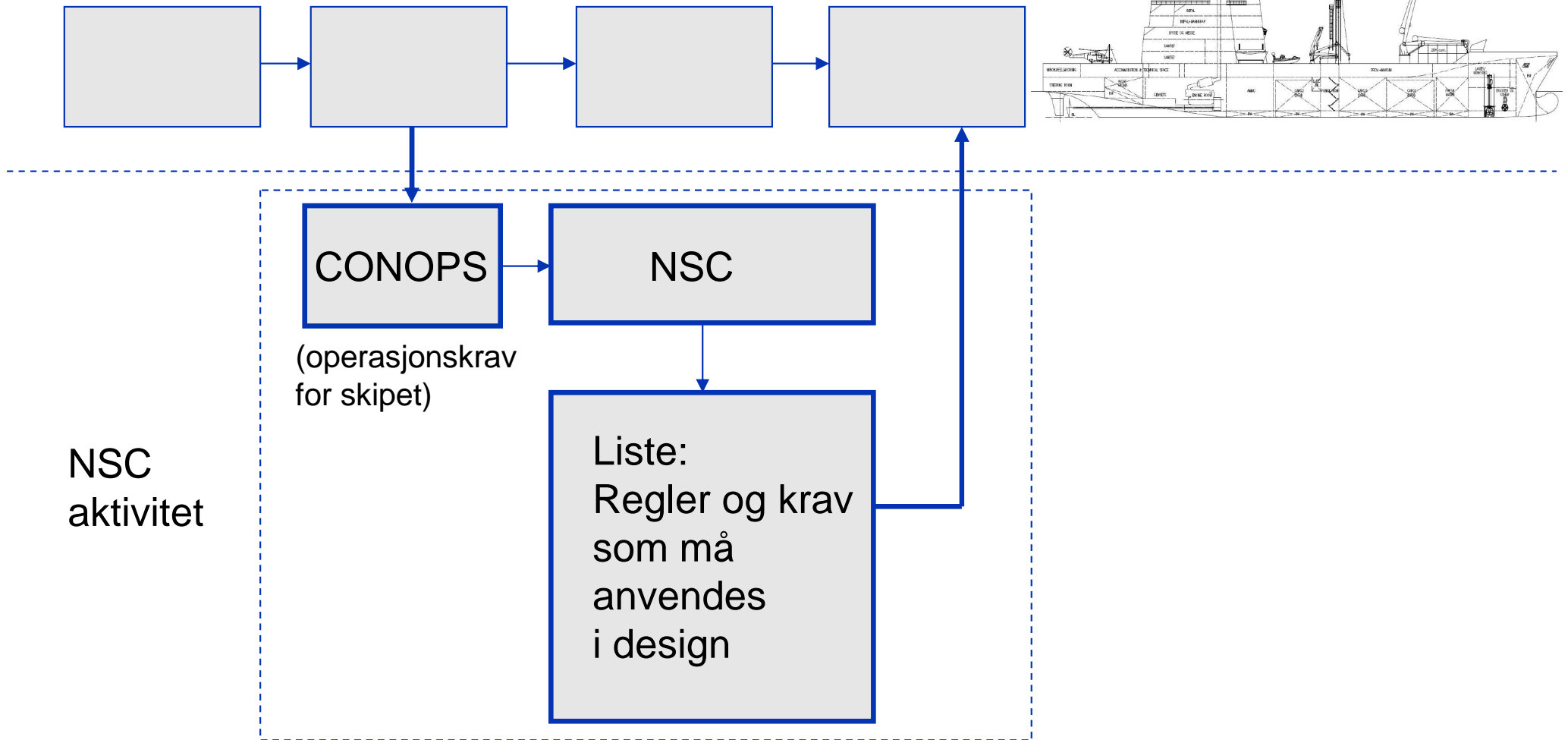
	Demands	Goal 1	Goal 2	Goal 3	Goal 4
Normal Operations	Natural environment	Y	Y	Y	NA
	Built and man-made environment	Y	Y	Y	NA
	Demands limited by capacity	Y	Y	Y	NA
	Unquantifiable demands	Y	Y	Y	NA
	Access, layout and arrangement	Y	Y	Y	NA
	Disregarded demands and disregarded capacity	NA	NA	NA	NA
Damage Scenarios	Foreseeable damage	C	C	C	Y
	Extreme threat damage	C	C	C	Y
	Access, layout and arrangement	C	C	C	Y
	Disregarded demands and disregarded capacity	NA	NA	NA	NA

Y= yes C= compromised NA= not applicable

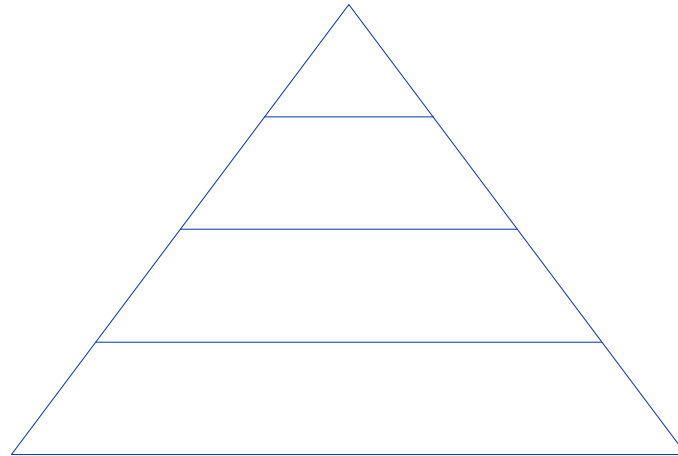
CONOPS (= Concept of Operation)

Prosjektet

Staff docs, spcification



Oppsummering: NSC - Innhold



NSC nivå 0-3: setter sikkerhetsnivået gjennom funksjonskrav/goals

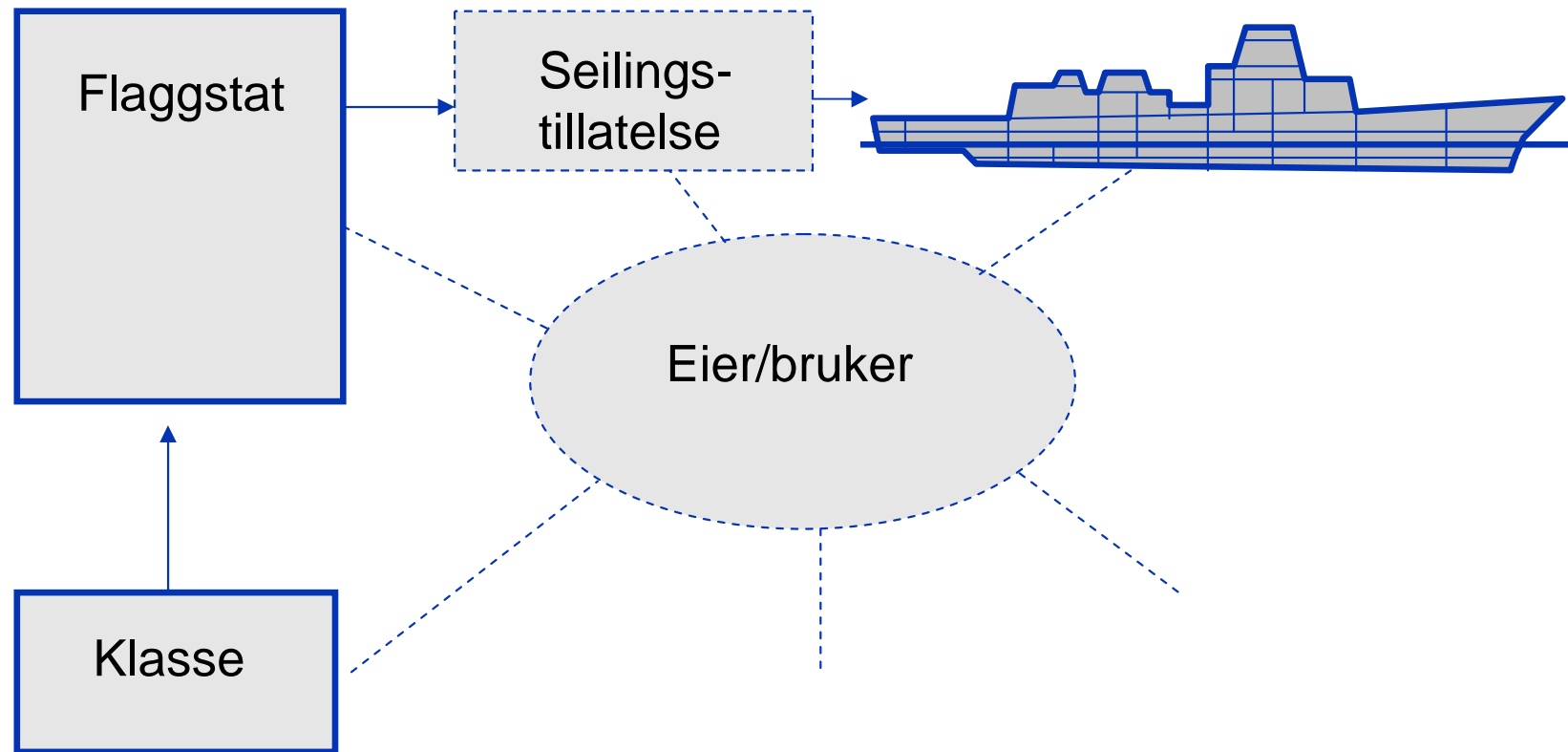
NSC nivå 4: Definerer løsningsstandard (NSC, Klasse, Nasjonale)

Bruk av Naval Ship Code

Roller
Kvalifisering
Proessen
Output

Roller

- NSC forutsetter at det er en uavhengig og ansvarlig Flaggstat på toppen
- I tillegg forutsetter NSC (indirekte) at noen aktiviteter gjøres av et klasseselskap



Eksempel: IMO krav til Flagstat (Res.A.847(20))

Implement policies & infrastructure wrt:

- personnel, expertise
- adm instruction
- facilities and personnell
- resources
- training
- impartial investigation
- certificate sithdrawal, suspension
- casualty investigation

Delgation of authority

- ref IMO res A739

Enforcement

- prohibit ships from sailing
- periodic inspection
- proceedings against ships vilolating international rules
- provide national laws and regulations for penalties

Control & monitoring

- casualty investigations
- collection of statistical data
- response to deficiencies wrt pollution
- regular review of: fleet loss, substandard ships, port states deficiencies, seriaous carualties, resources

Eksempel: IMO krav til Klaseselskap

IMO resolution A 739:

- Document extensive experience in design, construction assessment
- Publication and systematic maintenance of Rules
- Research capability for development and updating of Rules
- Rule development participation from Flag Authorities and parties concerned
- Governed by the principles of ethical behavior
- Geographical coverage and local representation
- Quality system to ensure that Rules & regulations are followed
- Instructions for actions for ships not complying
- Procedures for communication, reporting, maintaining records etc.
- Quality system at least as ISO 9000.
- Subject to certification of quality system and regular inspections
- System for qualification of staff, and updating of knowledge

Roller i NSC

Flaggstatens rolle i NSC:

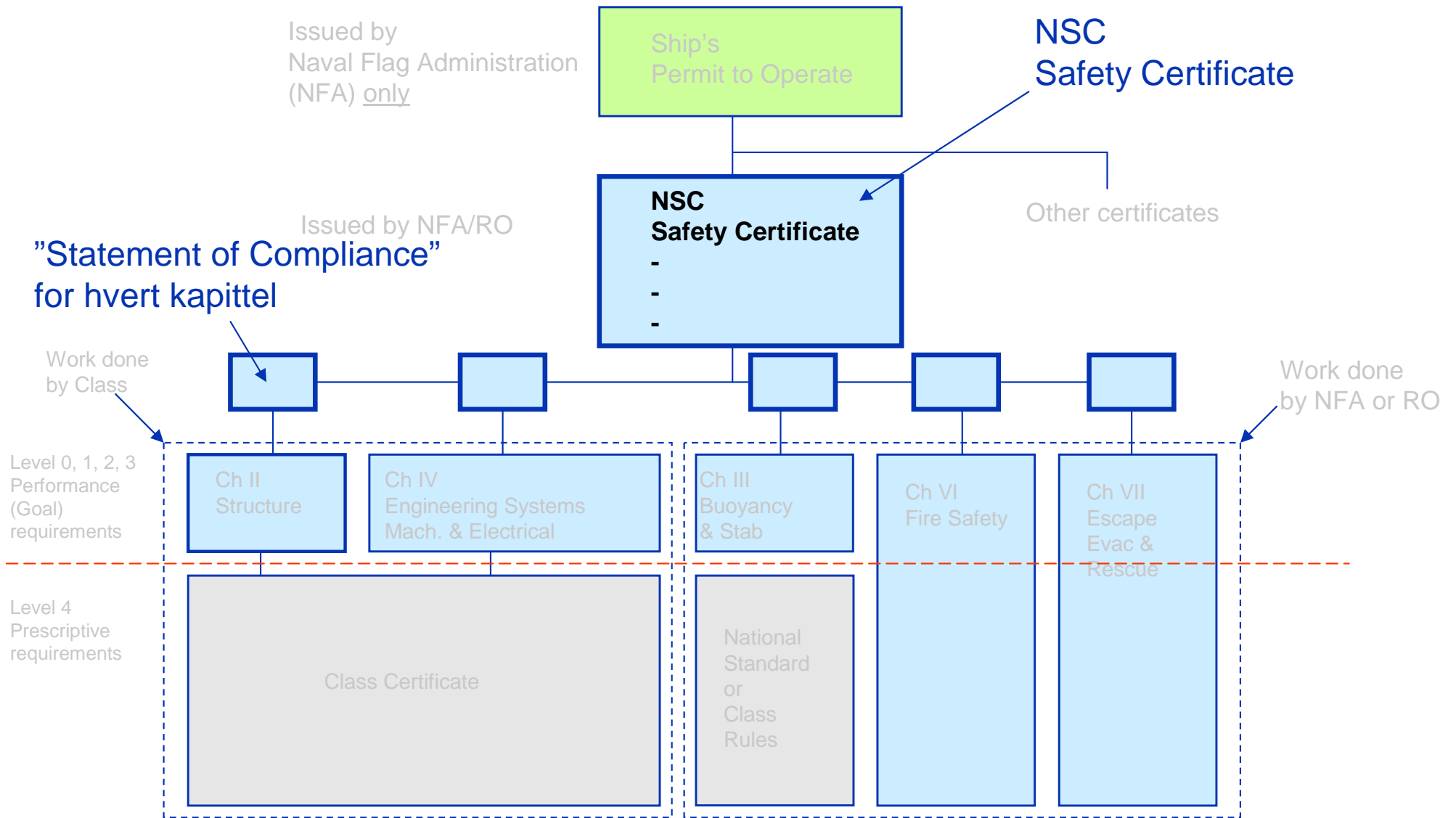
- Øverste forvaltningsmyndighet av sikkerheten
- Forvaltning av NSC
- Tolkning av NSC
- Utøvelse av NSC (nivå 0-3 + 4)

Klassens rolle i NSC:

- underleverenrandør til Flaggstaten
- dekker normalt skrog og maskin
- lager klasseregler (nivå 4)
- utfører klasses tjenester (Klassesertifikat)
- utfører delegerede verifikasjonstjenester (Myndighetssertifikater)

**Klare roller
ingen sammenblanding**

Naval Ship Code - Output



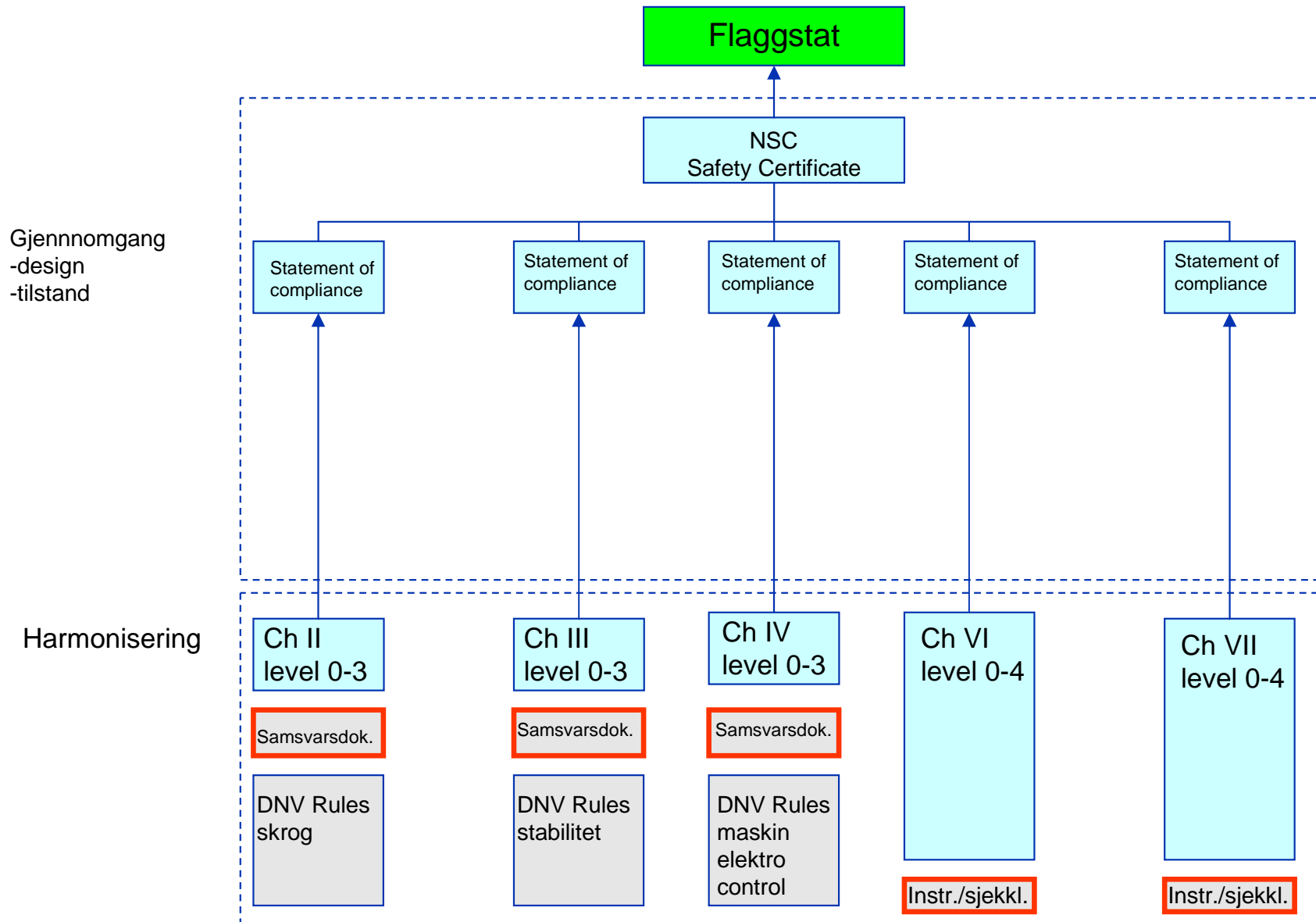
4. NSC og Prosessen for Sjøforsvarets fartøy

Arbeid med FN-fregatter klassegjennomgang

-harmonisere klassereglene (nivå 4) mot nivå (0-3) i NSC skrog, stabilitet, maskineri/elektro
-implementere NSC (nivå 4) med sjekklister etc.

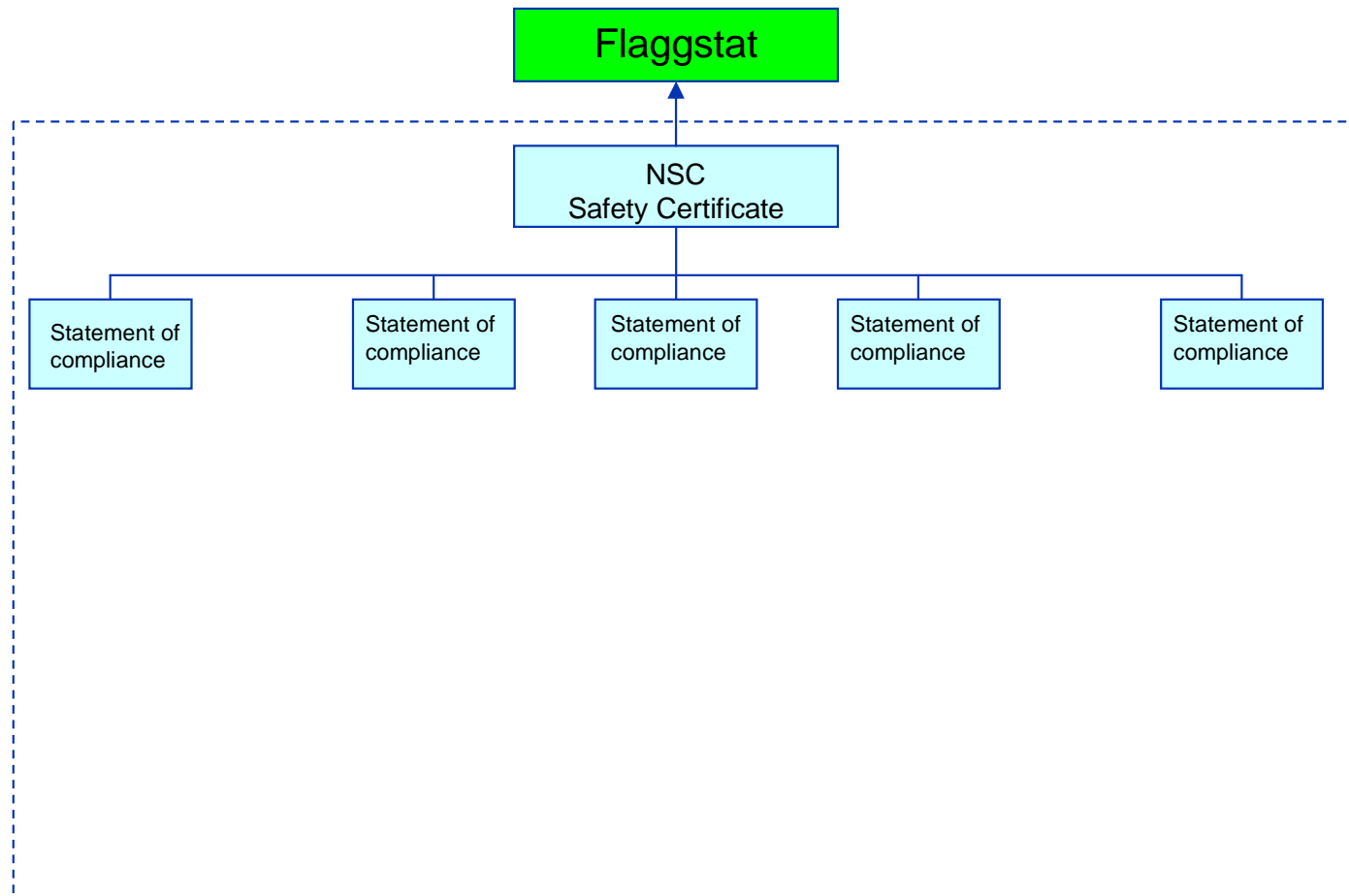
-gjennomgang FN-klassen mot NSC og Klasse

Harmonisering av regler – gjennomgang FN klassen



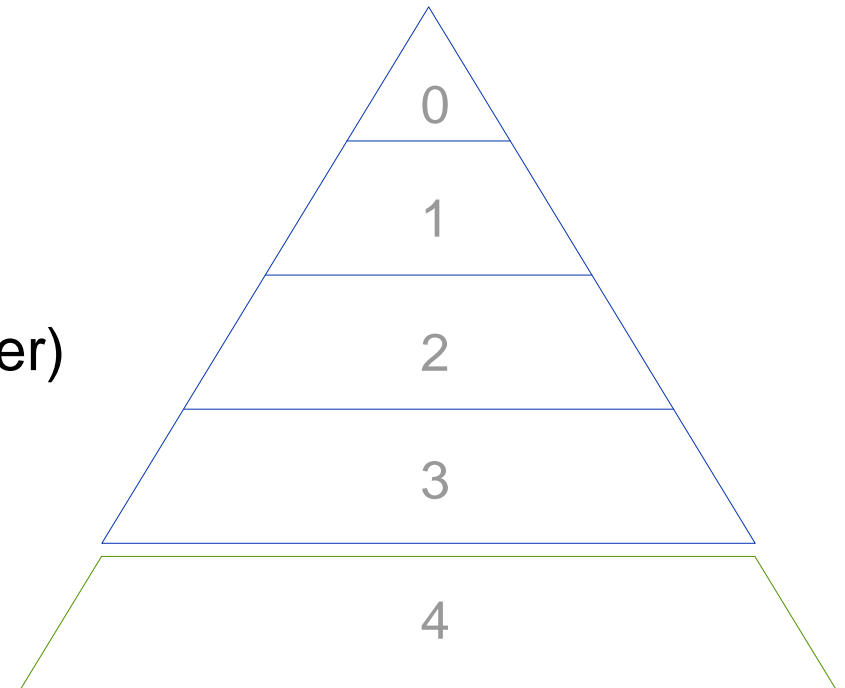
Gjennomgang nybygg

Gjennomgang
-design
-bygging



5. NSC Konklusjon og Avslutning

- NSC – setter sikkerhetsnivået
- NSC – forutsetter definerte roller
- NSC – forutsetter klasse
- NSC – gir "løsningsstandard" (noen kapitler)



Spørsmål?



Safeguarding life, property and the environment

www.dnv.com



MANAGING RISK