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THINKING (A) TOMORROW'S SUBMARINE TO FACE
OPERATIONAL CHALLENGES IN A CONSTRAINED
ENVIRONMENT

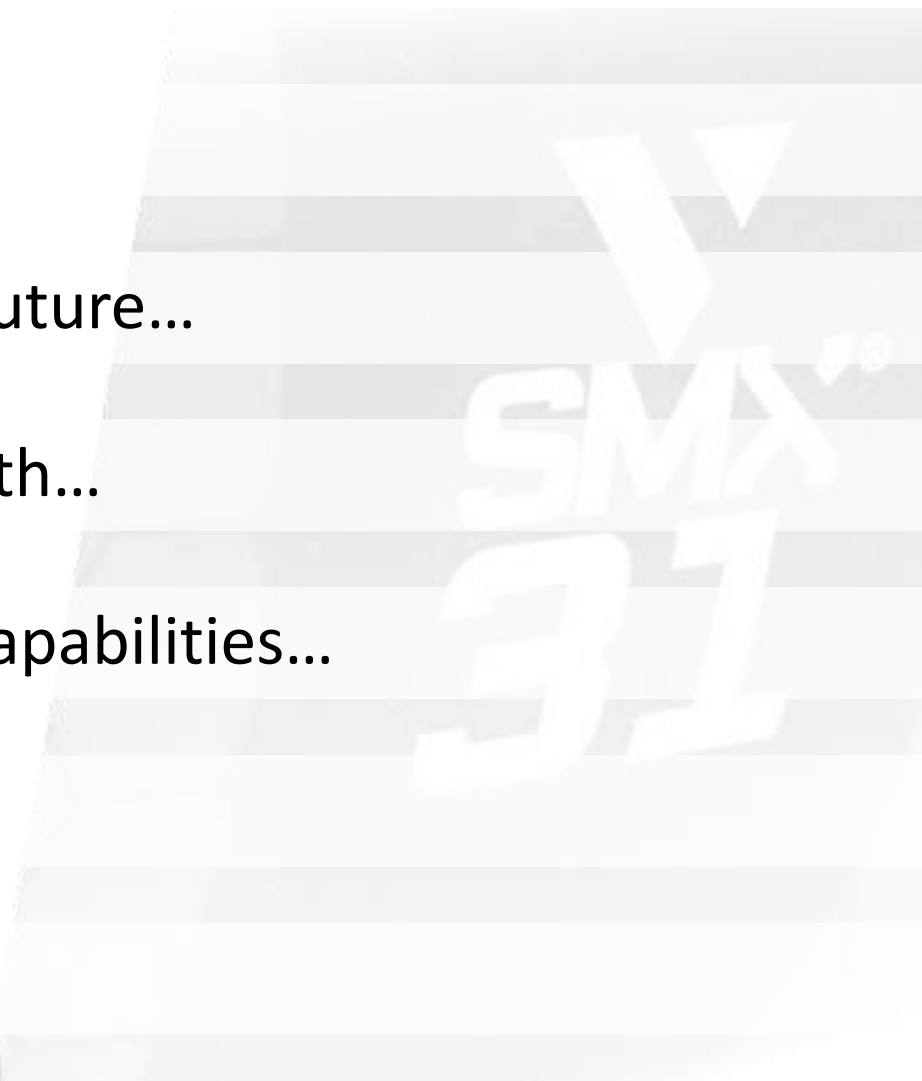
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THE ELECTRIC



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THINKING (A) TOMORROW'S SUBMARINE TO FACE OPERATIONAL CHALLENGES IN A CONSTRAINED ENVIRONMENT

- Here is the point.
- Operational constraints in the future...
- ...mean seeking ultimate stealth...
- ...and enhanced operational capabilities...
- ...in a smart sub.
- This is how SMX 31 orients R&D



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THINKING (A) TOMORROW'S SUBMARINE TO FACE OPERATIONAL CHALLENGES IN A CONSTRAINED ENVIRONMENT

PIONEERING

Objectives may not shift.

Environment does.

And threats change.

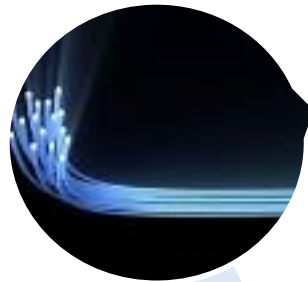
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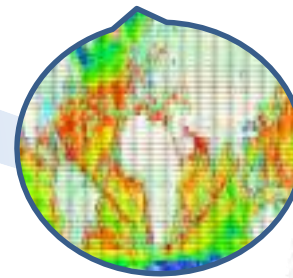


TOMORROW. PIONEERING

Subsea



Demographics



Traffic

- Introduction
- Operational constraints
- Ultimate stealth...
- Operational capabilities
- A smart sub
- Conclusion

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THINKING (A) TOMORROW'S SUBMARINE TO FACE OPERATIONAL CHALLENGES IN A CONSTRAINED ENVIRONMENT

ONE OBJECTIVE. 3 PILLARS.

Informational superiority

Superiority at engagement

Resilience at sea

Sovereignty

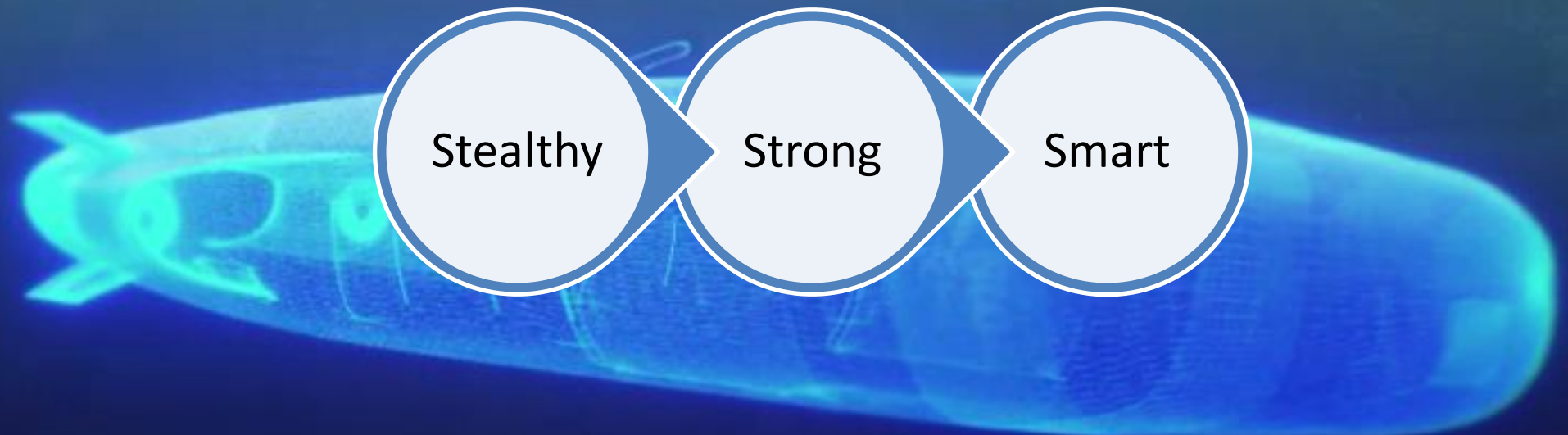
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TOMORROW

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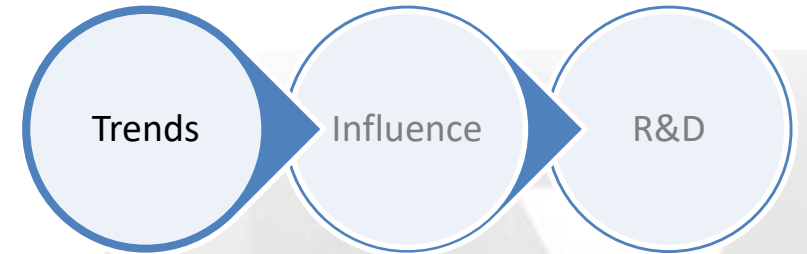
THINKING (A) TOMORROW'S SUBMARINE TO FACE OPERATIONAL CHALLENGES IN A CONSTRAINED ENVIRONMENT

STEALTHY

Extremely low &
monitored
signatures

Submerged
endurance

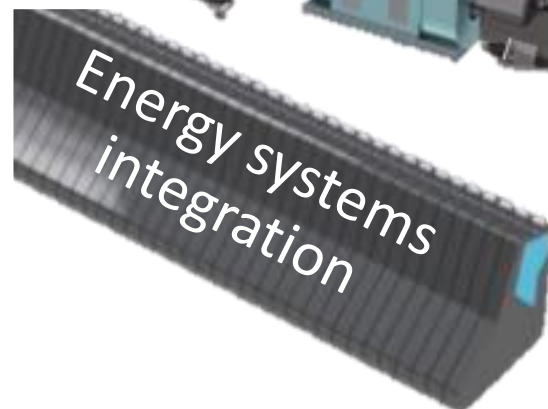
To be one with it's
environment



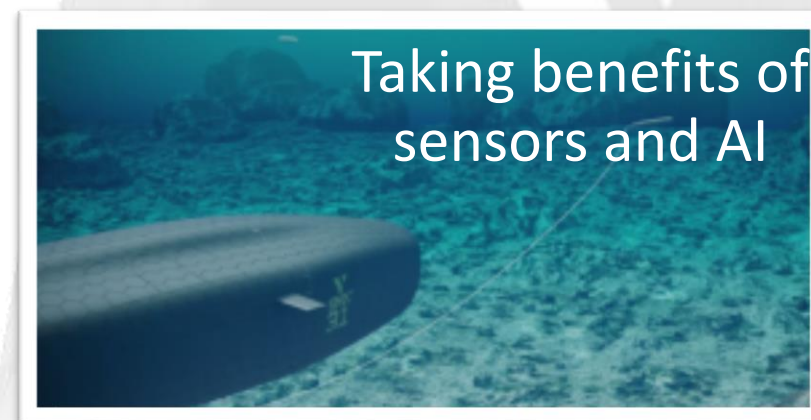
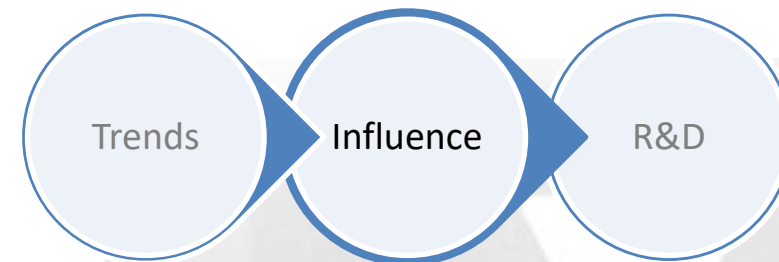
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STEALTHY



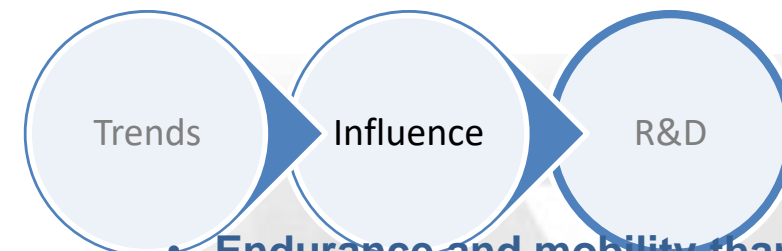
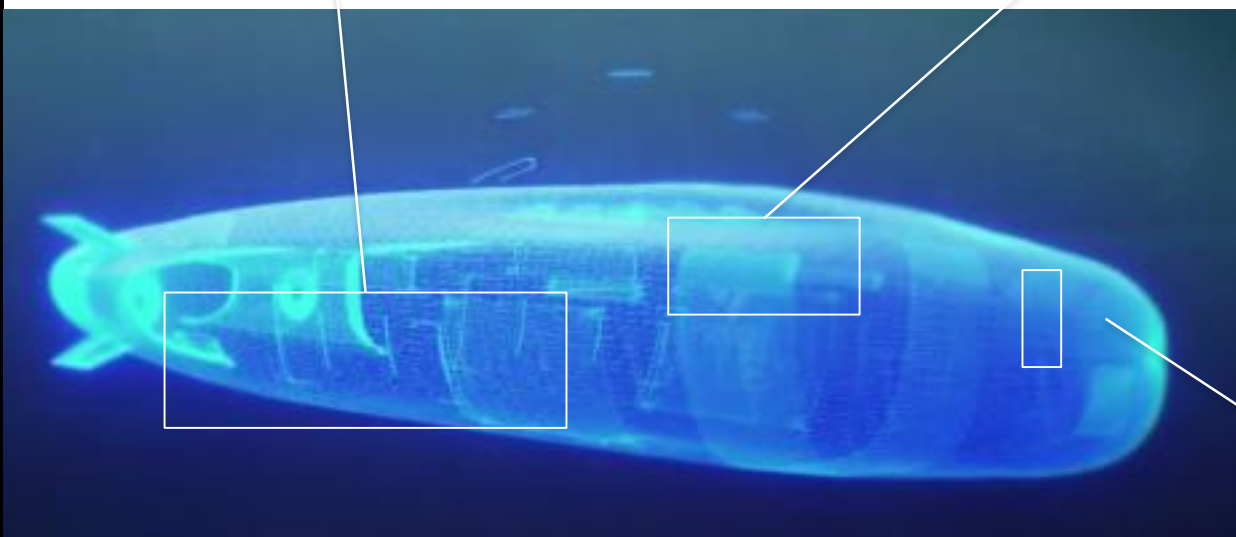
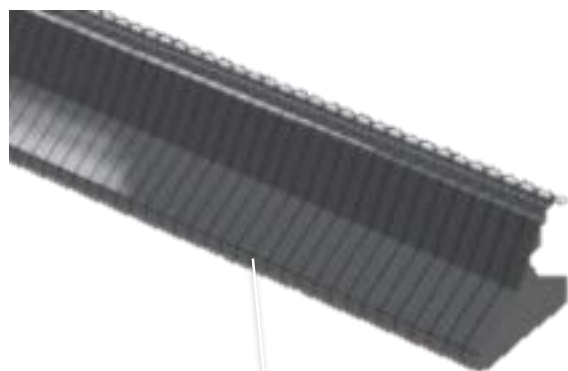
Shapes



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STEALTHY



• Endurance and mobility thanks to powerful energy capacities

- Super high efficiency batteries
- Gas turbines for fast charging
- Smart energy management system

• Extremely low signatures

- Shapes inspired by biomimicry
- Hydrodynamic design
- Multifunction skin covering

• To be one with it's environment

- Monitored signatures
- Use of AI to maximize stealth

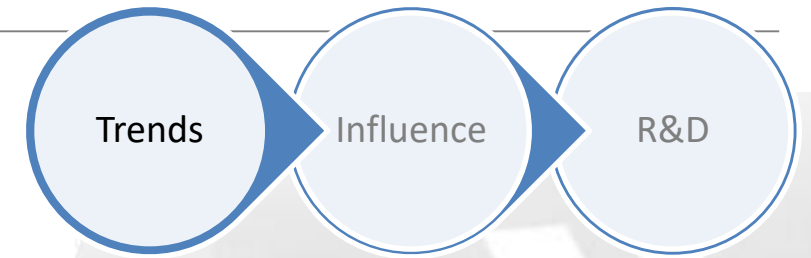


POWER AT SEA

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Strong ▶ ENHANCED CAPABILITIES

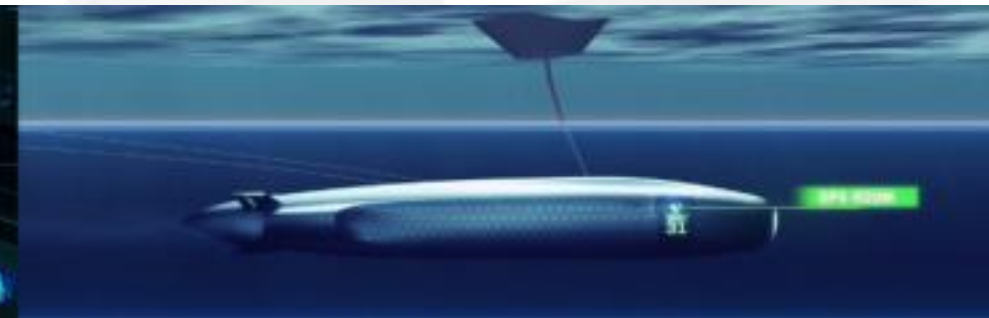


Extended

Evolutionary

Heavy
capacities

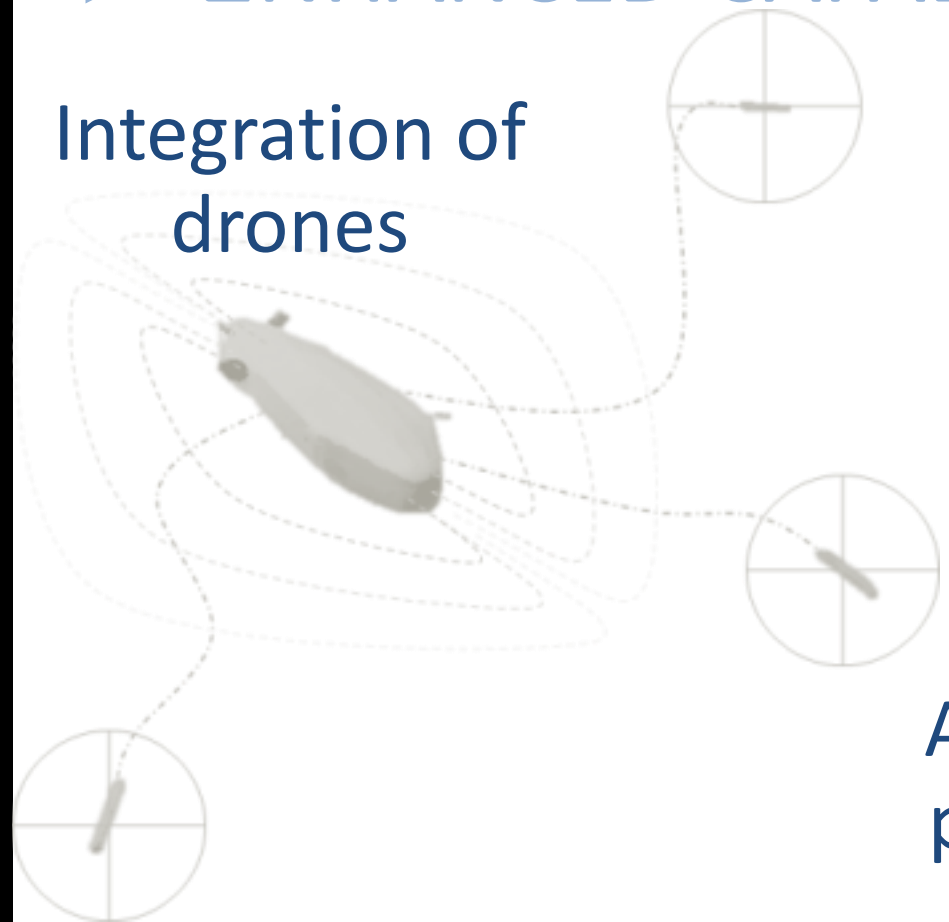
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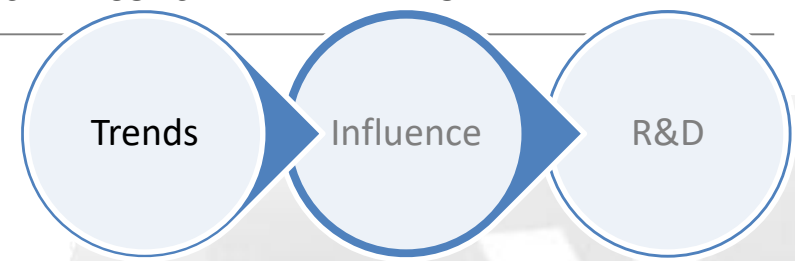
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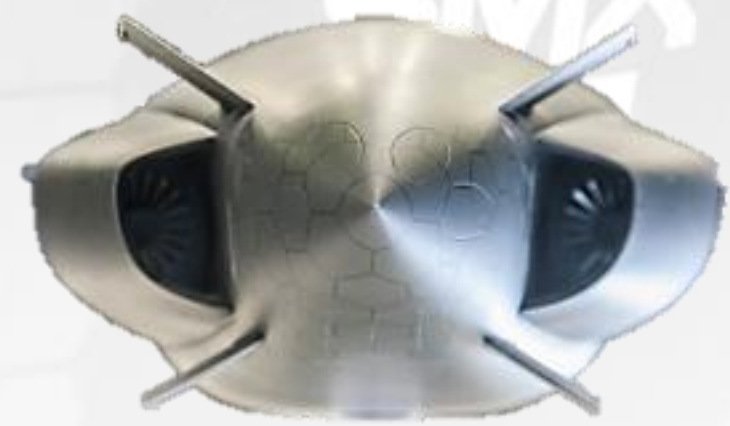
Integration of
drones



Adaptive
platform



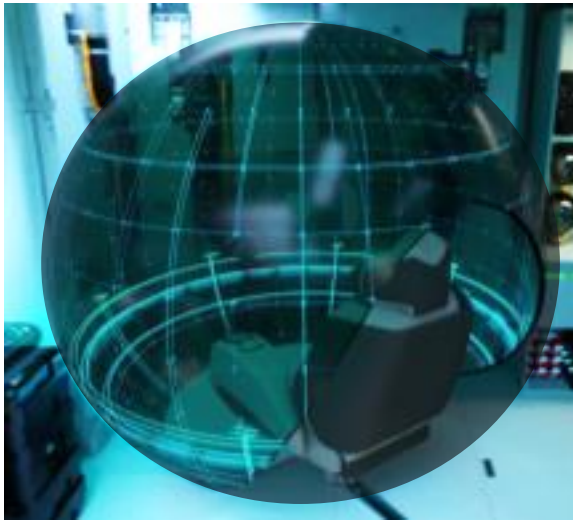
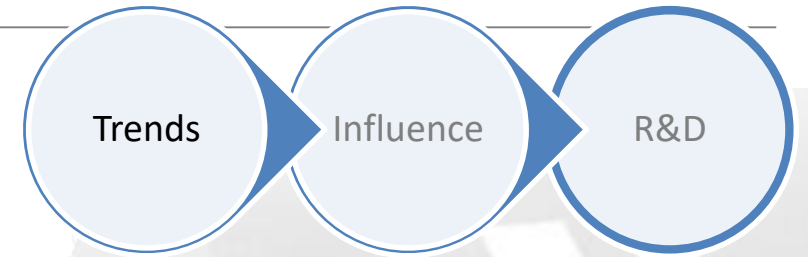
Think over
propulsion



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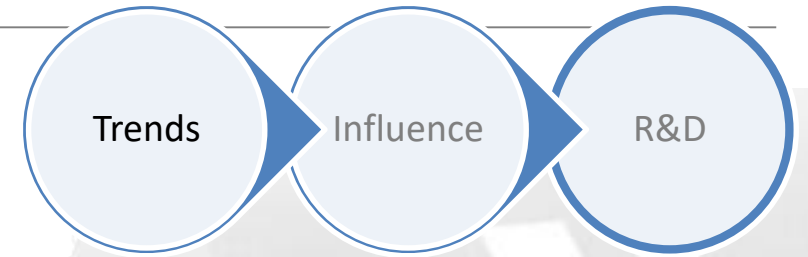


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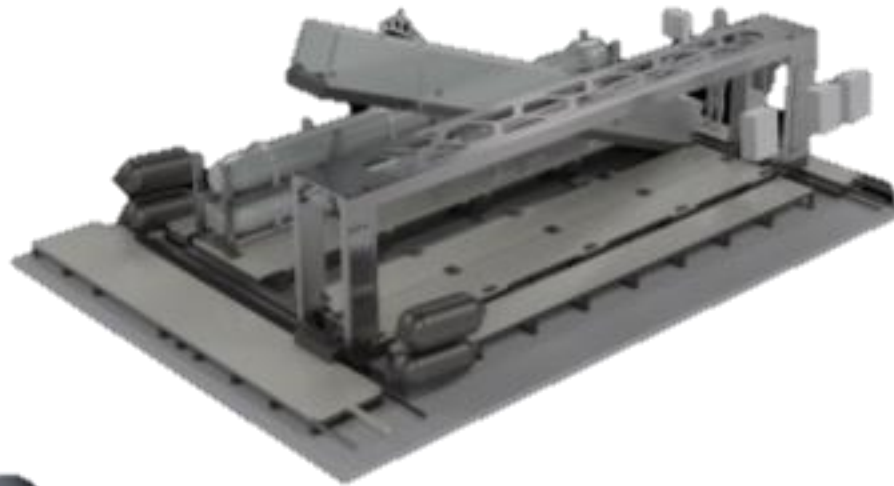
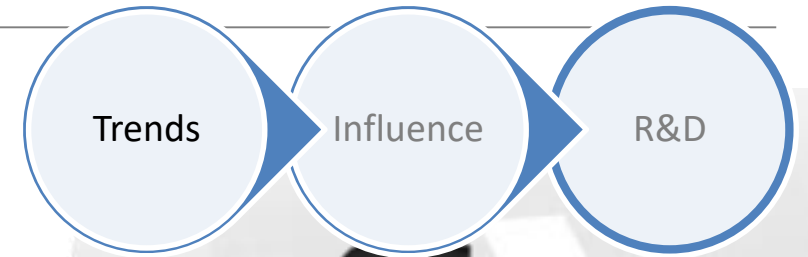
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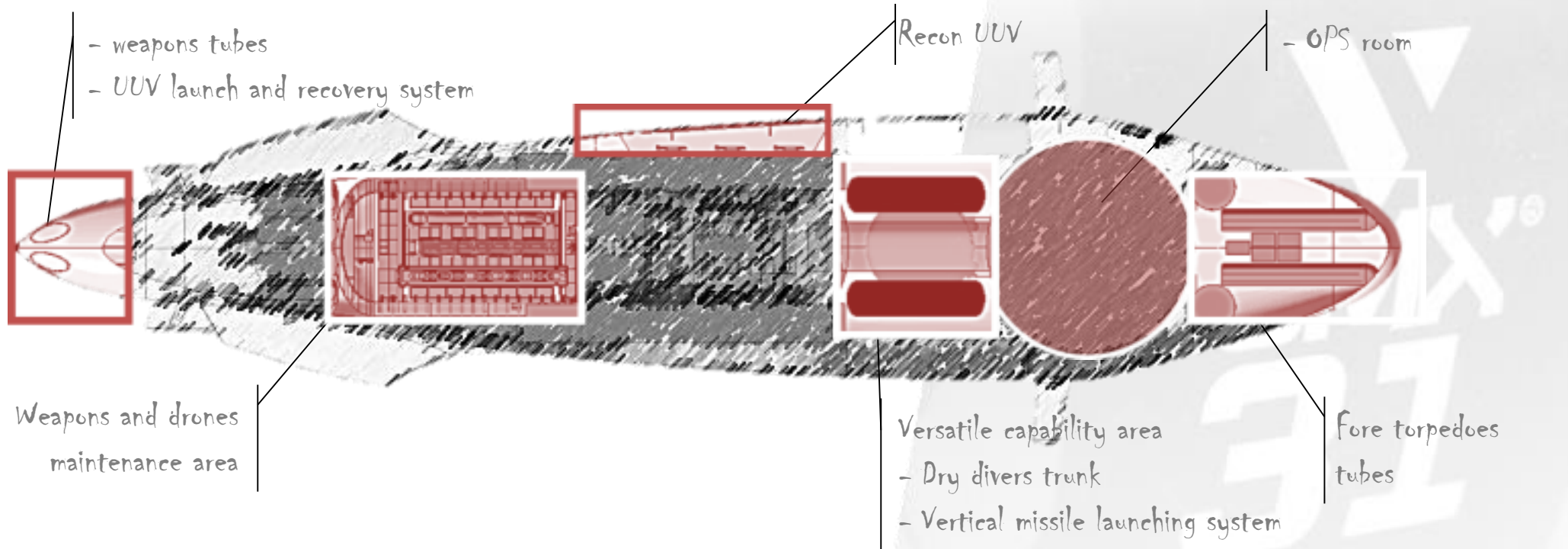


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ENHANCED CAPABILITIES

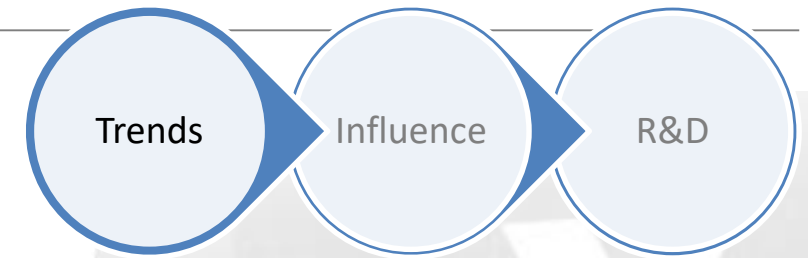


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Remote
sensors

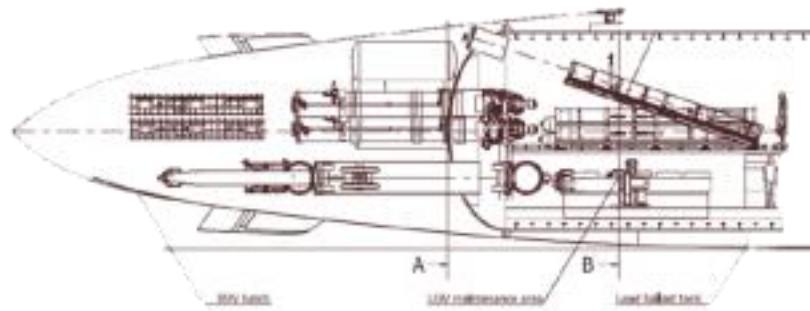
Artificial
intelligence

Cognitive
comfort



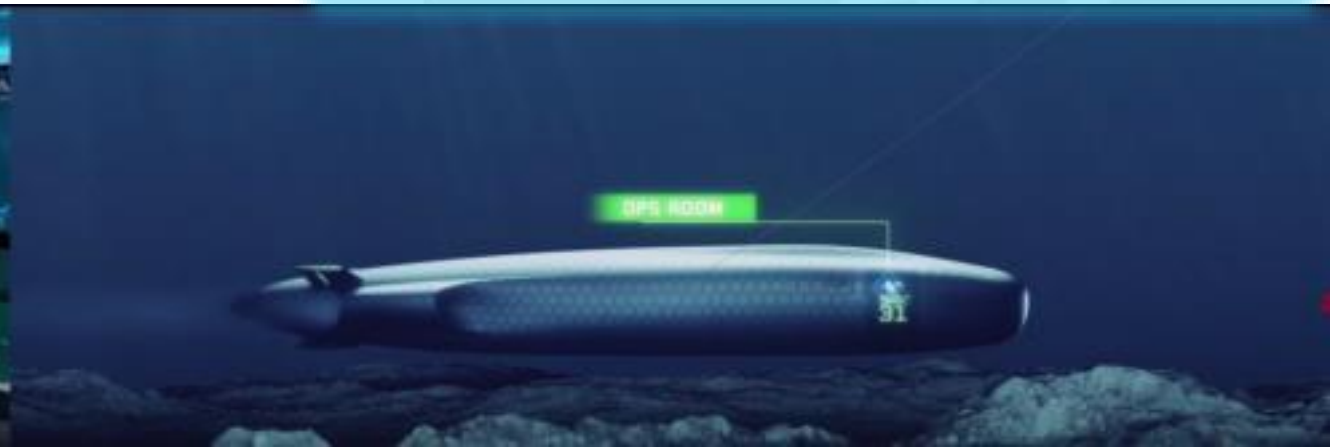
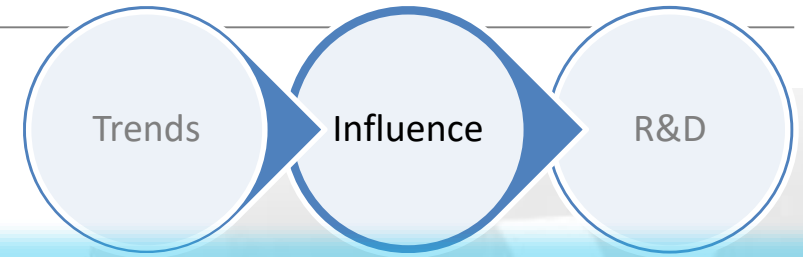
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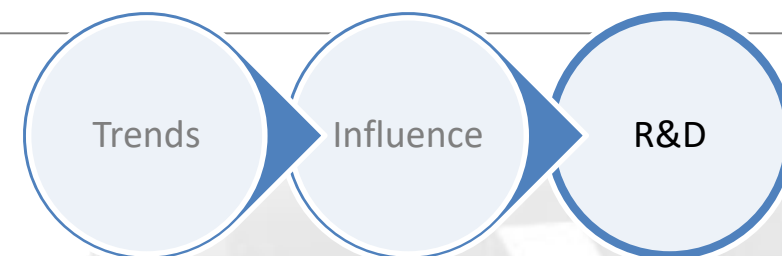
Effectors
integration

Control
Room



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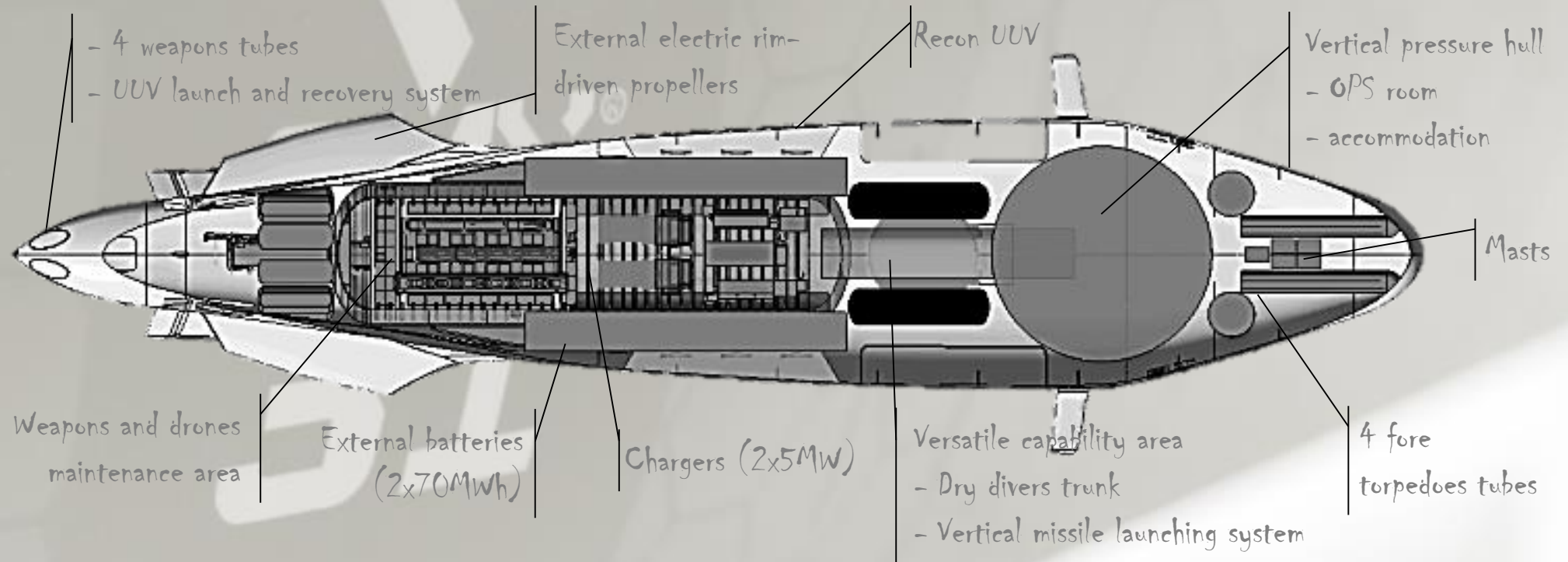
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- Signatures monitoring
- Navigation assistance
- UxV integration
- Future control rooms



Arrangement & characteristics



UDT 
Undersea Defence Technology
13-15 May 2019
Stockholmsmässan, Sweden

 #UDT2019

NAVAL
GROUP

POWER AT SEA