

Availability through cooperation – towards a smarter solution for small navies

Commander Bernd Arjes – German Navy

Chair's Welcome

As a result, underwater technology development is being driven at a speed and in directions that we have seldom seen before. The requirements list is long: autonomy, endurance, reliability, reduced training, open-source software and standardisation – as military forces worldwide invest heavily in their underwater defence capabilities from anti-submarine warfare to mine and mine-countermeasures and combat diving.

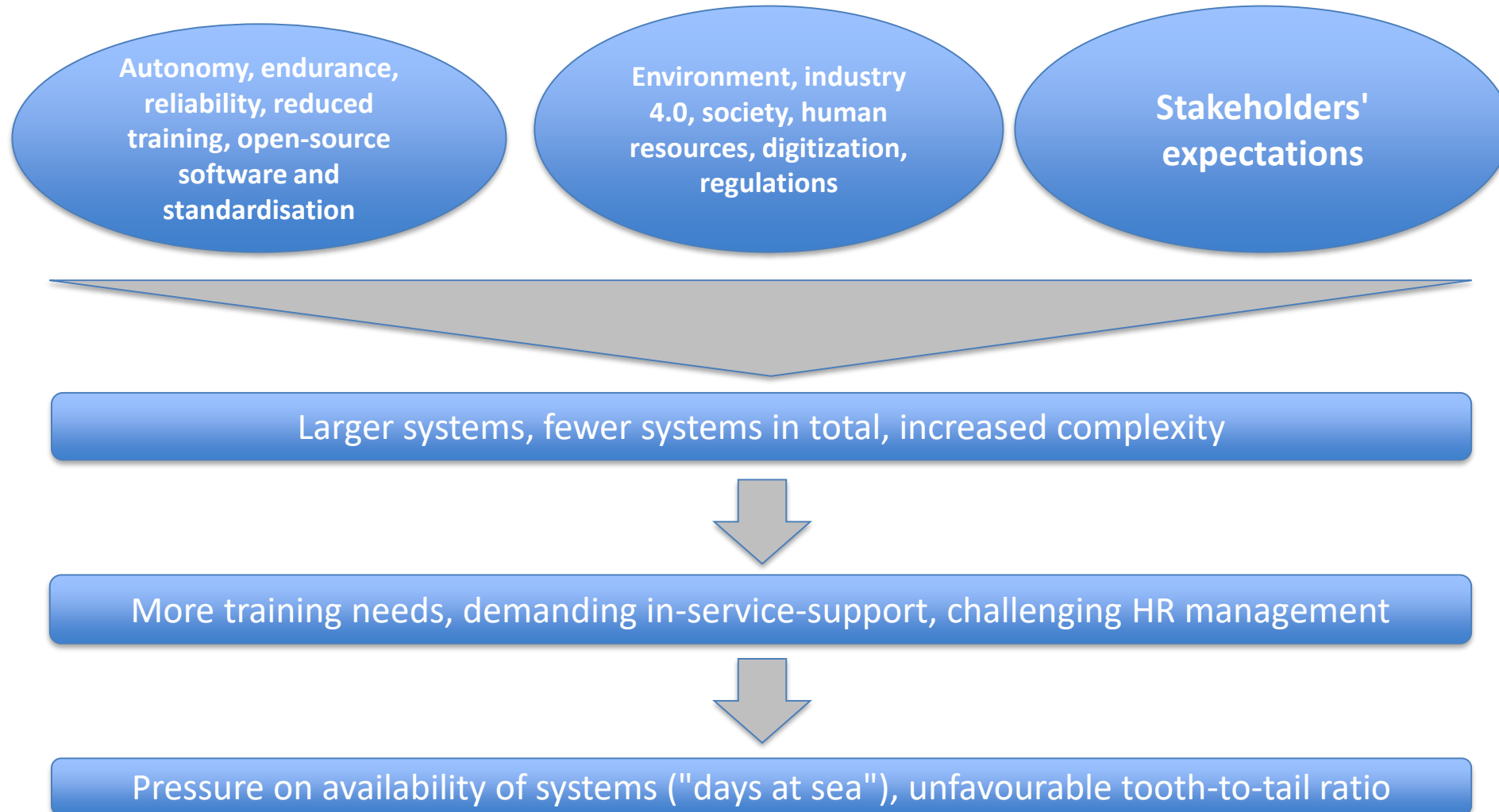
(Mr. Bert Johansson, UDT 2019 Committee Chair; www.udt-global.com/chairs-welcome)

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Maintaining availability through cooperation - Fields of cooperation, advantages and prerequisites regarding

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ORGANIZATION

TRAINING

MATERIEL

LEADERSHIP

PERSONNEL

FACILITIES

- **I**NTEROPERABILITY

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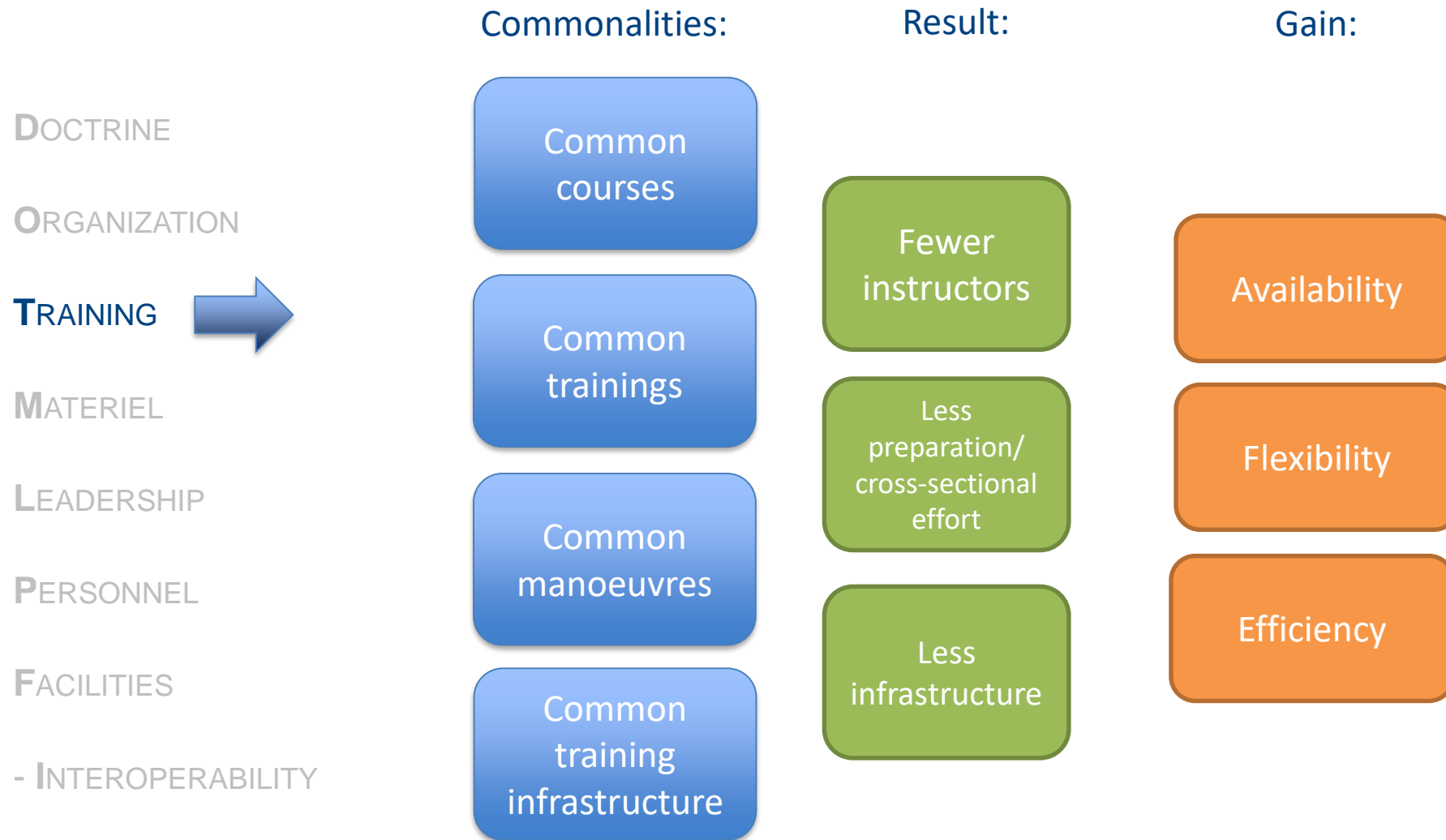
- INTEROPERABILITY



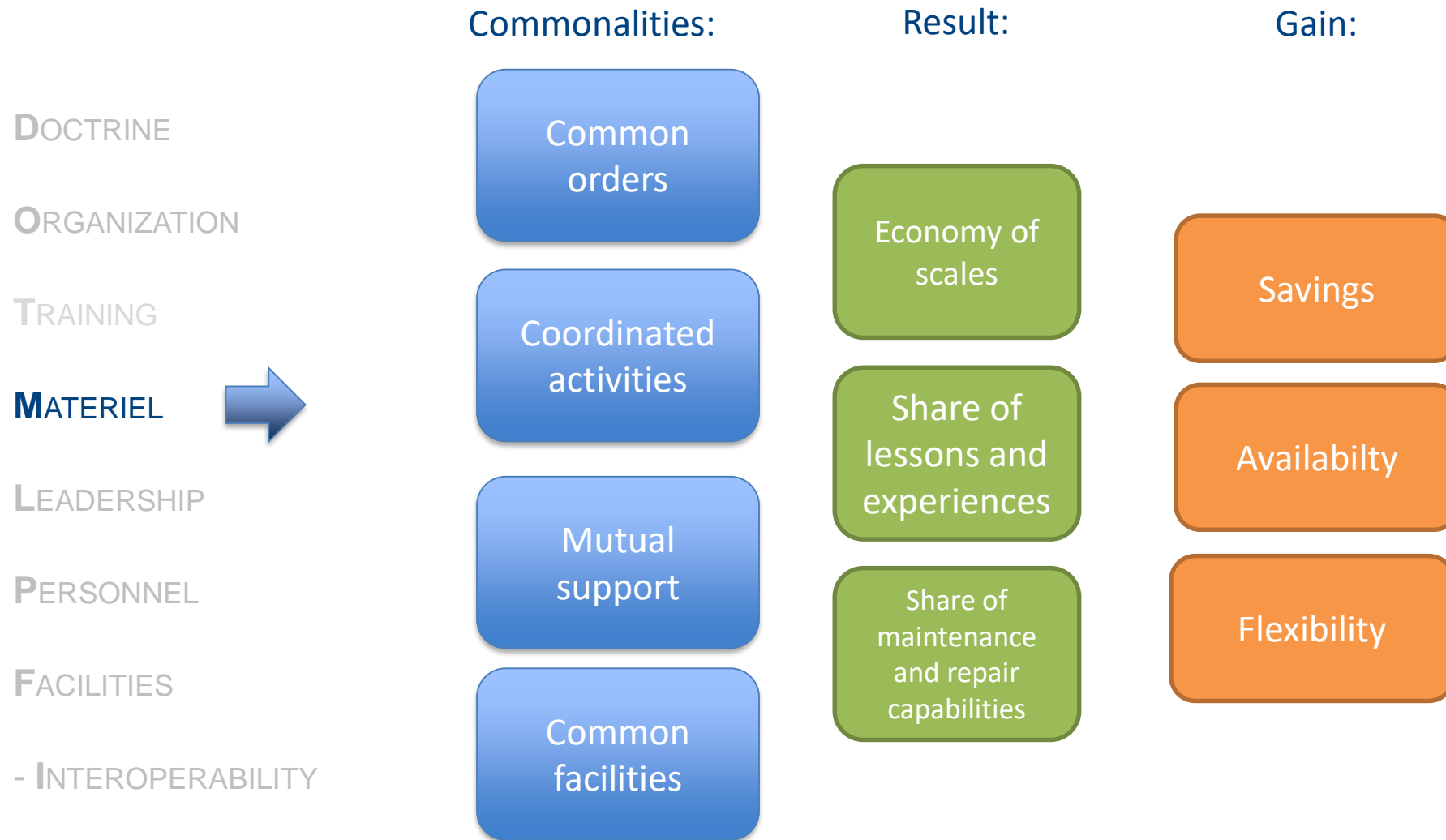
The diagram illustrates the relationship between various fields of cooperation and availability. On the left, a vertical list of terms is shown: DOCTRINE, ORGANIZATION, TRAINING, MATERIEL, LEADERSHIP, PERSONNEL, FACILITIES, and - INTEROPERABILITY. The terms TRAINING, MATERIEL, and PERSONNEL are rendered in a bold, dark blue font, while the others are in a lighter, grey font. Three blue arrows originate from the right side of the words TRAINING, MATERIEL, and PERSONNEL, pointing towards a blue rounded rectangular box on the right. This box contains the word 'Availability' in white, bold, sans-serif font.

Availability

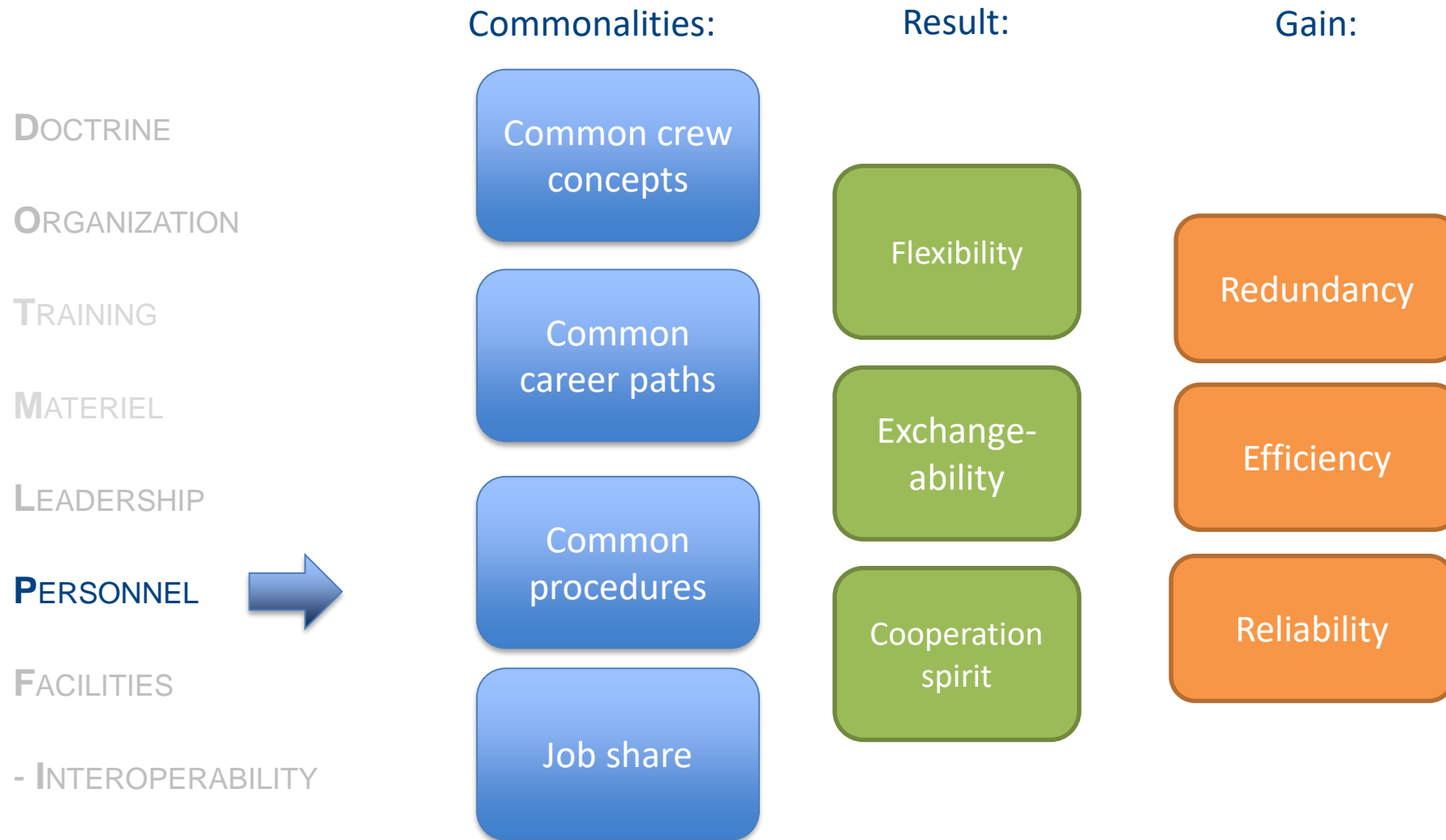
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Success factors of cooperation

- **willingness to cooperate**
- **ability to compromise**
- **requirements**
- **doctrines, regulations**
- **organization**
- **crew concepts and career paths**

... need to be harmonized as a prerequisite.

... guarantee success if as identical as possible.

Conclusion

- The operation of a small number of modern and highly complex weapon systems poses great challenges for many small navies.
- Cooperation, ideally beginning with the procurement of common systems, can be a way of meeting this challenge. It allows costs to be kept to a reasonable level and the human and material resources required to operate state-of-the-art weapon systems to remain manageable. Availability is easier to ensure in cooperation with partners.
- The factors for successful cooperation are willingness to compromise, openness and the will to cooperate at all levels. Doctrines and procedures need to be harmonised to a certain extent – identical terms of reference shared by all cooperation partners provide an ideal basis.
- The German Navy has years of positive experience with cooperation partners in the operation of submarines and will continue on this path with long-standing and new partners.



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