Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Federal Department of Defence,
Civil Protection and Sport DDPS

armasuisse

OFFSET POLICY

dated 01 July 2021

(The original German text prevails)

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1 BASIC PRINCIPLES

The following documents form the basis of the present Offset Policy:

- Principles of the Swiss Federal Council for the Armament Policy of the DDPS of 24 October 2018;
- Armaments Strategy of 1 January 2020;
- Revised Agreement on Government Procurement of 15 April 1994 (GPA 2012; SR 0.632.231.422).

2 PURPOSE

In accordance with the Principles of the Swiss Federal Council for the Armament Policy of the DDPS of 24 October 2018 and the Armaments Strategy of 1 January 2020, the Swiss Confederation has various control instruments available to strengthen the Security-relevant Technology and Industry Base (STIB)[1] of Switzerland. These include compensation transactions (hereinafter referred to as "offset transactions"), which the revised Agreement on Government Procurement of 15 April 1994 permits to protect essential security interests with regard to the procurement of arms, ammunition or war materials (hereinafter referred to as "defence materiel"). In order to promote the preservation and development of key security-relevant technologies and core industrial capabilities and capacities domestically despite procurements abroad, the Swiss Confederation obliges foreign armaments suppliers to an industrial cooperation with research institutions and companies in Switzerland (hereinafter referred to as "Swiss beneficiaries"). This aims to reduce dependence on foreign countries for defence materiel in the area of key security-relevant technologies and thus strengthen resilience and security of supply of Switzerland in the event of international crises.

With regard to achieving this goal, the Federal Office for Defence Procurement armasuisse regulates the execution, reporting, control and assessment of offset transactions in Switzerland in the present Offset Policy.

3 DEFINITION

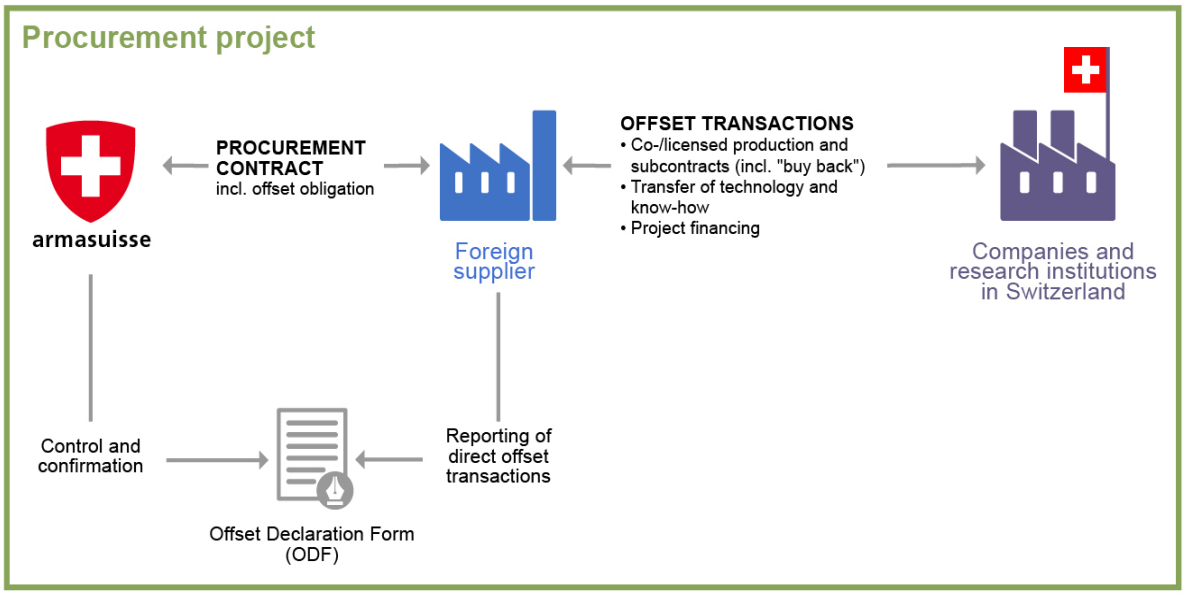
3.1 DIRECT OFFSETS

Direct offsets denote the industrial cooperation between a foreign armament supplier and the STIB within the framework of an offset obligation which flows into the defence materiel to be procured. Direct offset transactions can takes place, for example, in the form of full or partial licence production, sub-supplier relationships and joint ventures. This also includes the final assembly of the system, the installation of components, participation in the (further) development of the system and component maintenance.

[1] The STIB consists of research institutions and companies that have expertise, skills and resources in the field of security and defence technology in Switzerland.

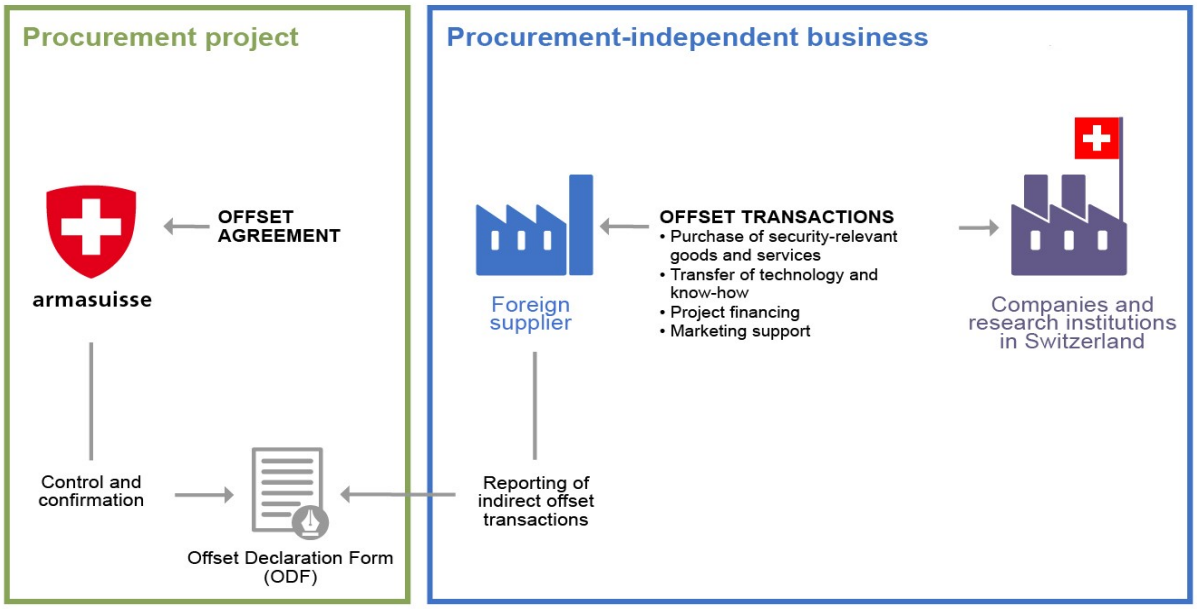
Orders for the same products (same part/article number) which the sub-supplier in Switzerland receives for other customers of the foreign supplier can be approved as indirect offset transactions (“buy back”).

Direct offsets are aimed to qualify the STIB for the most autonomous utilisation, maintenance, service life extension, value retention and upgrade of military systems as possible and thus reduce dependencies on foreign armament suppliers.



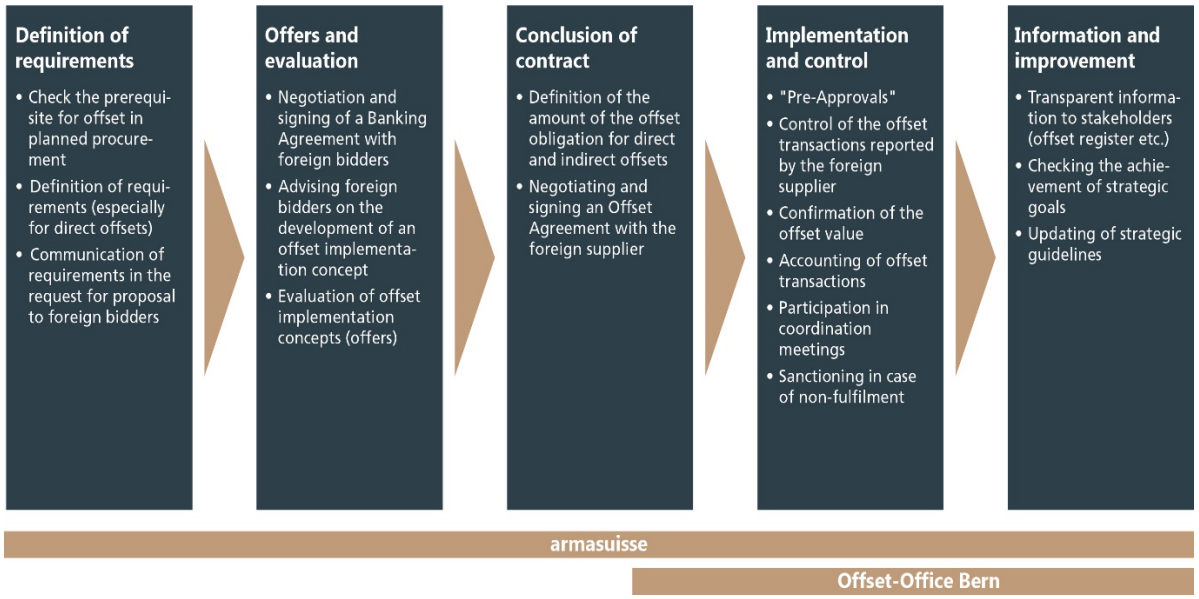
3.2 INDIRECT OFFSETS

Indirect offsets denote the industrial cooperation between a foreign armament supplier and the STIB within the framework of an offset obligation which does not flow into the defence materiel to be procured. Indirect offset transactions can take place, for example, in the form of industrial and research orders, technology and know-how transfer as well as marketing support. Indirect offsets aim to enable the STIB to have access to know-how, technologies and foreign markets.



3.3 PROCESS

The implementation of the Offset Policy as part of the procurement process is divided into five phases:



4 REQUIREMENTS

Taking into account the basic principles and framework conditions of the specific procurement, armasuisse checks the prerequisites for offset and defines requirements which are imposed on foreign bidders.

4.1 COMPETITIVE ABILITY

The competitiveness of the Swiss beneficiaries is a basic prerequisite for offset. This aims to prevent distortion of competition and encourage sustainable business relationships. The foreign supplier always chooses the Swiss beneficiaries themselves on the basis of their competitiveness and competencies. In the case of direct offsets, armasuisse can, in the interests of national security, set specifications (such as centre for maintenance, overhaul and repair).

4.2 OFFSET THRESHOLD

armasuisse imposes an offset obligation on a foreign supplier or a foreign sub-supplier of a supplier located in Switzerland whose share of delivery exceeds 50% of the contract value if it receives at least 20 million Swiss Francs for the procurement of defence materiel. In procurement on a lot basis, the individual lots are added to calculate this threshold value.

4.3 OFFSET OBLIGATION

The offset obligation of the foreign supplier is usually 100% of the value of the contract (excluding VAT) according to the procurement contract. Replenishments from foreign suppliers increase their offset obligation according to their value. In justified cases, armasuisse can define a different offset obligation or dispense with it completely (for example, lack of competitiveness, export restrictions).

4.4 PERFORMANCE PERIOD

The direct offset obligation of the foreign supplier must be fulfilled up to the last delivery of the defence materiel, excluding material warranty period. The indirect offset obligation must usually be fulfilled by two years after the end of the performance period for the direct offset obligation. As an exception, armasuisse can define a longer performance period for the indirect offset obligation, taking into account the amount of the offset obligation.

4.5 CONTRACTUAL PENALTY

If the offset obligation is not fulfilled, the contractual penalty amounts to at least 5% of the share which has not been performed and does not release the foreign supplier from complete fulfilment. Non-fulfilment of an offset obligation may be a ground for exclusion from future public contracts for defence materiel.

4.6 DIRECT OFFSETS

The foreign supplier should fulfil as high a share of its offset obligation as possible as direct offsets (guideline: 20%). armasuisse can define concrete requirements and demand an offset implementation concept from foreign bidders which can be an evaluation criterion for procurement and can be an annex to the procurement contract.

4.7 REGIONAL DISTRIBUTION

The foreign supplier should aim for a well-balanced regional distribution in the fulfilment of its offset obligation (around 65% in German-speaking, around 30% in French-speaking and around 5% in Italian-speaking Switzerland). The location of the provision of services is decisive. In individual cases, armasuisse can define a binding distribution key.

4.8 OFFSET AGREEMENT

The concrete requirements for direct offsets are a part of the respective procurement contract. The concrete requirements for indirect offsets will be regulated in an accessory Offset Agreement to the procurement contract between armasuisse and the foreign supplier. The Offset Agreement will be signed at the earliest with the option contract and at the latest with the procurement contract.

4.9 COSTS

Any costs incurred by the foreign supplier in the preparation and/or fulfilment of its offset obligation (including “banking”) should be included in its offer for the respective procurement of defence materiel. These costs cannot be claimed for offset and may not be charged either to the Swiss beneficiary or armasuisse.

5 CREDITABILITY

5.1 SECURITY RELEVANCE

Offset transactions, in other words, the goods, services and technologies concerned must be security-relevant. This is the case if the foreign supplier fulfils its offset obligation in the economic sectors listed in Appendix 1.

5.2 TRANSACTION TYPES AND ASSESSMENT

The following transaction types can basically be credited as offset. The foreign supplier must have offset transactions under Clause 5.2 a), c) and d) approved by armasuisse in advance in writing ("pre-approval").[2] For offset transactions under Clause 5.2 b) and e) such a “pre-approval” is optional. The control and assessment of offset transactions is performed based on substantiating documents from the foreign supplier and the express consent of the Swiss beneficiary.

a) Co-/licensed production and subcontracts (*direct* offsets)
+ same orders for third parties [“buy back”] (*indirect* offsets)

- Offset value = order value of the service to be executed.[3]

b) Purchase of security-relevant goods and services (*indirect* offsets)

- Offset value = order value of the purchased goods or services.[3]

c) Transfer of technology and know-how (*direct/indirect* offsets)
(i.e. cost-free provision of machines, equipment, software, documentation, intellectual property rights, licences, training, advisory service, technical assistance, testing/inspection facilities, etc.)

- Offset value = one annual turnover of products which result from the transfer of technology or know-how.[4]

If the offset value cannot be determined based on the annual turnover, or is not adequately reflected here, it can be alternatively determined as follows:

- Market value of the transferred technology or know-how; or
- Costs for the development of the transferred technology or know-how.

d) Project financing (*direct/indirect* offsets)
(including earmarked payment into one of the project funds recognised by armasuisse)

- Offset value = amount of non-repayable project financing as well as one annual turnover of products which result from project financing.

[2] The final approval will take place after initiation of the transaction or after the disclosure of the annual turnover based on the signed Offset Declaration Form. Any deviations from the "pre-approval" will be taken into account.
[3] As long as the order has been issued within the performance period, the value that has been agreed as fixed can be credited to the offset obligation, even if the purchased goods and services are only due after the performance period.
[4] The selected annual turnover must lie within three years after the transfer or start of production.

e) Marketing support (*indirect* offsets)
(such as procurement of orders)

- Offset value = sales revenue resulting from the support (according to table).

Degression table		
Sales revenue (million CHF)	Creditable (%)	Offset value (million CHF)
0 - 10	100%	0 - 10
10 - 30	60%	6 - 18
30 - 50	40%	12 - 20
50 - 100	26%	13 - 26
100 - 150	19%	19 - 28.5
150 - 200	15%	22.5 - 30
200 - 300	12%	24 - 36
300 - 400	10%	30 - 40
400 - 500	8%	32 - 40
500 -	5%	25 -

5.3 ADDITIONALITY

Offset transactions are subject to the requirement of additionality. They may not be placed within the framework of existing business transactions ("daily business"). In direct offset transactions (including "buy back"), this requirement is generally met based on its correlation with a new procurement of defence materiel. With indirect offset transactions, one of the following requirements must be met.[5]

Code 1: New offset transaction

a) First business relationship with the Swiss beneficiary;
b) The business contains different goods/services or significant alterations in comparison to previous business with the Swiss beneficiary;[6] or
c) Resumption of business relationship with the Swiss beneficiary after an interruption of at least 24 months.

Code 2: Follow-up orders

a) Follow-up order to an offset transaction recognised by armasuisse with an order value that is at least 50% higher in comparison; or
b) Follow-up order to an offset transaction recognised by armasuisse whose supported technology exhibits a high or critical security relevance (see Appendix 2).

[5] Offset transactions with an affiliated company in Switzerland can only be approved if the foreign supplier can demonstrate that the offset transaction has taken place under competitive conditions.
[6] This means a significant tangible (technical) or intangible (intellectual) deviation from previous goods or services (not simply a different colour or software).

5.4 ORDER THRESHOLD

The threshold for individual offset transactions is 10,000 Swiss Francs or a corresponding amount in another currency. Offset transactions below this threshold are generally not creditable. Offset transactions can be added if they have the same order date and have been concluded between the same contractual parties.

5.5 SWISS ADDED VALUE

armasuisse determines the offset value, taking into account the Swiss added value. The difference between the order value agreed with the Swiss beneficiary and the value of the foreign deliveries and underdeliveries or services associated with this order applies as the Swiss added value. Material and services which the Swiss beneficiary procures from third parties (such as sub-suppliers, distributors), must therefore be deducted from the Swiss value-added share, if they are of foreign origin. As a rule:

- Offset transactions for which the Swiss value-added share is 61% or more will be credited at 100%.
- Offset transactions for which the Swiss value-added share is between 20% and 61% will be credited proportionately.
- Offset transactions for which the Swiss value-added share is below 20% will not be credited.

5.6 MULTIPLIER

The national security value of an offset transaction can be higher than the financial expenditure of the foreign supplier. To compensate, armasuisse can multiply the transaction value by a factor of 1 to 3.

The foreign supplier can apply for a multiplier for co/licensed productions and subcontracts (see Clause 5.2 a)[7]; transfer of technology and know-how (see Clause 5.2 c) and project financing (see Clause 5.2 d) from armasuisse in advance in writing (“pre-approval”). armasuisse decides in each case on the application and amount of a multiplier based on the security relevance of the promoted core industrial capabilities and capacities as well as technologies (see Appendix 2, *indirect* offset transactions) and on the gained operational or support autonomy with respect to the defence materiel procured (*direct* offset transactions). The decision shall be comprehensibly justified to the foreign supplier in writing.

5.7 PARTNERS

The foreign supplier can be supported in the fulfilment of its offset obligations by the following foreign partners if it lists them at conclusion of the contract in the Appendix to its Banking/Offset Agreement and can prove the respective business relationship:

- its affiliated companies;
- subcontractors, sub-suppliers and consortium partners involved in the procurement, to which it transfers a part of its offset obligation, as well as their affiliated companies.

[7] The multiplier for “buy back” is basically identical with the underlying offset transaction.

5.8 TRANSFER OF OFFSET CREDIT

In individual cases, the foreign supplier can have existing offset credit of up to 20% credited to its indirect offset obligation.[8] Offset credits may be transferred up to five years from the order date of the underlying offset transaction. The foreign supplier can apply in writing to armasuisse for a transfer. For this purpose, it submits a final list of the offset transactions to be transferred (Offset Declaration Form no.) and if applicable a written consent of partners involved.

The following transfers are possible:

- **Transfer from advance performance ("banking")**

  Offset credit from an advance performance ("banking") can be transferred to an offset obligation of the same foreign supplier or a partner (see below).

  - In order for offset transactions to be performed before an offset obligation, a written Banking Agreement between armasuisse and the foreign bidder must be concluded. This can be concluded if an offset obligation is probable within the framework of up-coming procurement of defence materiel.

- **Transfer from over-fulfilment**

  Offset credit from an over-fulfilment of a concluded offset obligation can be transferred to an ongoing offset obligation or an ongoing "banking" of the same foreign supplier or a partner (see below).

- **Transfer between partners (see Clause 5.7)**

  Offset credits can be transferred between two foreign suppliers if

  a) the recipient was a partner of the transferring party in its offset obligation or "banking" in which this offset credit originated; or
  b) the transferring party is a partner of the recipient in its offset obligation or "banking".

5.9 INTERGOVERNMENTAL SET-OFF TRANSACTION ("SWAP")

In exceptional cases, armasuisse can set off in whole or in part an offset obligation of a foreign supplier in Switzerland with an offset obligation of a Swiss company in the country of the foreign supplier. The foreign supplier can apply to armasuisse for such a "swap" by submitting the written consent of all parties involved, including its national offset authorities.

[8] Transfers of offset credits between two ongoing offset obligations of the same foreign supplier are possible without an upper limit.

6 REPORTING

The foreign supplier shall provide proof of the performance and scope of offset transactions as well as their compliance with the specifications.

6.1 CONTACT PERSON

The foreign supplier shall determine a contact person in order to guarantee regular information exchange with armasuisse, the Offset Office Bern and the STIB.

6.2 REPORTS

The foreign supplier shall report to armasuisse on a half-yearly basis regarding its latest conducted offset transactions. For this purpose, it shall use the Offset Declaration Form specified by armasuisse, the contents of which it has confirmed by the Swiss beneficiary with their signature. It encloses with it the necessary proofs, declarations and “pre-approvals” required to assess the offset transaction.
Offset transactions must be reported to armasuisse for approval within 12 months after the order date. armasuisse must be informed immediately of any subsequent changes to reported offset transactions, which can cause a correction to the recognised offset value.
The foreign supplier and the Swiss beneficiary can be sanctioned by armasuisse for intentionally false declarations on offset transactions with an exclusion of up to five years from future public orders for defence materiel and from future offset transactions, respectively.

6.3 COORDINATION MEETINGS

The foreign supplier has a coordination meeting with armasuisse and the Offset Office Bern in Switzerland at least once a year. If necessary, foreign partners and/or Swiss beneficiaries can be invited. The coordination meeting serves to monitor the offset obligation (fulfilment status, regional distribution, etc.) and to clarify questions.

7 OPERATIONAL CONTROL

7.1 TASKS OF ARMASUISSE

armasuisse monitors legal compliance, is the point of contact for the foreign supplier in the event of offset queries and is mainly responsible for the control and approval of offset transactions according to the contractual provisions.

In particular, armasuisse performs the following tasks:

- "pre-approvals" for requested *direct and indirect* offset transactions, as necessary, queries to the foreign supplier and/or Swiss beneficiaries;
- control and assessment of reported *direct* offset transactions, as necessary, queries to the foreign supplier and/or Swiss beneficiaries (on the Basis of the Offset Declaration Form);
- written confirmation of the approved value for *direct and indirect* offset transactions to the foreign supplier with comprehensible justification;
- internal documentation (filing of correspondence, including reports and decisions);
- regular inspection at the Swiss beneficiary to verify the *direct* offset transactions on the basis of the respective Offset Declaration Form; and
- sanctioning the foreign supplier in the event of non-fulfilment of the offset obligation or intentionally false declarations on *direct and indirect* offset transactions.

7.2 TASKS OF OFFSET OFFICE BERN

The Offset Office Bern is the point of contact for the STIB for any offset queries, provides business contacts as necessary and supports armasuisse in the control and electronic entry of offset transactions.

In particular, the Offset Office Bern performs the following tasks:

- control and assessment of reported *indirect* offset transactions, as necessary, queries to the foreign supplier and/or Swiss beneficiaries (on the basis of the Offset Declaration Form);
- detailed accounting of all *direct and indirect* offset transactions as well as the current fulfilment statuses of all offset obligations and "bankings"(internal transparency); and
- commissioning of regular audits by an independent external inspection body at the Swiss beneficiaries to verify *indirect* offset transactions on the basis of the respective Offset Declaration Form.[9]

8 STRATEGIC CONTROL

In order to check the achievement of the goals set out in the Principles of the Swiss Federal Council for the Armament Policy of the DDPS of 24 October 2018 and the Armaments Strategy of 1 January 2020, armasuisse periodically examines the effect of offset on the strengthening of the STIB. If potential for improvement is identified, the corresponding structures, processes and documents are adjusted. armasuisse reports regularly to the head of the DDPS regarding the implementation and control of offset transactions as well as on the achievement of strategic goals.

[9] armasuisse is informed by ASIPRO openly regarding the test results and decides, after consultation with the Offset Office Bern, on any measures.

9 COOPERATION WITH THE STIB

In order to guarantee as efficient, target-oriented and sustainable implementation of the Offset Policy as possible, as well as a regular exchange of information with the STIB, armasuisse has concluded an agreement with the association ASIPRO (Association for Swiss Industry Participation in Security and Defence Procurement Programs).[10] ASIPRO represents the interests of the STIB, in particular of the associated industry associations, in offset issues and operates the Offset Office Bern for this purpose.[11] 0.1% of the amount recognised for indirect offset transactions (including "swaps"), is levied by the Swiss beneficiaries, without taking into account any multiplier, in order to finance the Offset Office Bern, a trust company, an auditor and an external inspection body.

An offset supervisory body, consisting of representatives from armasuisse and the Executive Board of ASIPRO controls and monitors the professional cooperation between armasuisse and the Offset Office Bern. It decides conclusively on the creditability and assessment of *indirect* offset transactions which deviate from the Offset Policy in exceptional cases. Decisions are usually made mutually. The National Armaments Director is chairman and decides conclusively if there are any differences of opinion.

10 COMMUNICATION

All figures and information on individual offset transactions are considered as business secrets. Publication requires the prior written consent of the respective foreign supplier, the Swiss beneficiary and armasuisse.

With respect to general offset topics, armasuisse ensures, together with the Offset Office Bern, open and regular communications at an early stage with the relevant stakeholder groups (politics, media, STIB, etc.). For this purpose, armasuisse and the Offset Office Bern hold regular information events and publish, among other materials, the Offset Policy, the Offset Declaration Form, contact data and the most important key figures on current offset obligations (Offset Register) on the internet.[12]

[10] See the Agreement between the Federal Office for Defence Procurement armasuisse and ASIPRO regarding Cooperation in the Area of Offset, concluded on 22 April 2021.
[11] Membership in an industry association is not a prerequisite for offset transactions and has no impact on its control and assessment. Information and contacts will be made available to the entire STIB.
[12] Website: Offset. Federal Office for Defence Procurement armasuisse.
https://www.ar.admin.ch/en/beschaffung/ruestungspolitik-des-bundesrates/offset.html.

11 FINAL PROVISIONS

This Offset Policy will come into force on 1 July 2021. It shall replace the Offset Policy of 15 December 2009 (updated 01 January 2019).

1 July 2021

Federal Office for Defence Procurement
armasuisse

Digital signiert von Martin Sonderegger
2021-06-25 (mit Zeitstempel)

Martin Sonderegger

National Armaments Director

APPENDIX 1: SECURITY-RELEVANT ECONOMIC SECTORS[13]

Status: 1 July 2021

20 **Manufacture of chemicals and chemical products**
(NOGA 2051; 2052; 2059; 2060)

Formerly: Sector 18 Chemical products

22 **Manufacture of rubber and plastic products**
(NOGA 2211; 2219; 2221; 2222)

Formerly: Sector 17 Rubber and plastic products

23 **Manufacture of other non-metallic mineral products**
(NOGA 2320; 2343; 2344)

Formerly: Various sectors

24 **Manufacture of basic metals**

Formerly: Sector 12 Metal industry

25 **Manufacture of fabricated metal products, except machinery and equipment**

Formerly: Sector 12 Metal industry

26 **Manufacture of computer, electronic and optical products**

Formerly: Sector 13 Electrical and electromechanical industry; Sector 14 Optical industry; Sector 15 Watch-making industry

27 **Manufacture of electrical equipment**

Formerly: Sector 13 Electrical and electromechanical industry

28 **Manufacture of machinery and equipment n.e.c.**

Formerly: Sector 11 Engineering industry

29 **Manufacture of motor vehicles, trailers and semi-trailers**

Formerly: Sector 16 Vehicle, truck and railway industry

30 **Manufacture of other transport equipment**

Formerly: Sector 16 Vehicle, truck and railway industry

32 **Other Manufacturing**
(NOGA 3299)

Formerly: Various sectors

33 **Repair and installation of machinery and equipment**

Formerly: Various sectors

[13] Basis: General Classification of Economic Activities (NOGA). Federal Statistical Office. 01/01/2008. https://www.bfs.admin.ch/bfs/en/home/statistics/industry-services/nomenclatures/noga.html.

51 **Air transport**
(NOGA 5122)

Formerly: Sector 19 Aircraft and aerospace industry

61 **Telecommunications**

Formerly: Sector 13 Electrical and electromechanical industry; Sector 20 IT industry/Software engineering

62 **Computer programming, consultancy and related activities**

Formerly: Sector 20 IT industry/Software engineering

63 **Information service activities**

Formerly: Sector 20 IT industry/Software engineering

71 **Architectural and engineering activities; technical testing and analysis**
(NOGA 7120)

Formerly: Various sectors

72 **Scientific research and development**
(NOGA 7211; 7219)

Formerly: Sector 21 Co-operation with universities and research institutions

95 **Repair of computers and personal and household goods**
(NOGA 9511; 9512; 9521; 9522; 9525)

Formerly: Sector 13 Electrical and electromechanical industry; Sector 15 Watch-making industry; Sector 20 IT industry/Software engineering

Status: 31 March 2025

APPENDIX 2: SECURITY-RELEVANT TECHNOLOGIES

Nr.	Technology-Cluster	Technology / Application	**Capability areas** 1 Command and control and networks 2 Intelligence network and sensors 3.1 Effects against targets in the air 3.2 Effects against targets on the ground 3.3 Effects in cyberspace and in the electromagnetic spectrum 4 Logistics 5 Medical services 6.1 Unprotected mobility on the ground 6.2 Protected mobility on the ground 6.3 Air mobility	**Security relevance** 3 critical 2 high 1 medium (0.5 low)
1	Antenna technologies	Adaptive antennas	1, 2	3
2	CBRNE sensor technologies	B-antibodies	2, 5	3
3	CBRNE sensor technologies	Immunoassay detectors	2, 5	3
4	CBRNE sensor technologies	Ge-gamma detectors	2, 5	3
5	Communication technologies	COMINT ESM	1	3
6	Communication technologies	COMINT ECM/ECCM	1, 2, 3.3	3
7	Communication technologies	Routing technology	1	3
8	Communication technologies	Software defined radio technologies	1, 2	3
9	Communication technologies	Software encryption (cryptology)	1	3
10	Communication technologies	Optical networking	1	3
11	Communication technologies	Wireless network technologies	1-6	3
12	Computer technologies	Operating systems	1-6	3
13	Computer technologies	Virtualization (desktops, networks, datacenters)	1-6	3
14	Cyber security technologies	VPN technologies	1-6	3
15	Cyber security technologies	Firewalls	1-6	3
16	Cyber security technologies	Authentification technology	1, 2	3
17	Cyber security technologies	Vulnerability assessment (computing)	1-6	3
18	Cyber security technologies	Cryptology	1-6	3
19	Cyber security technologies	Digital forensics	1-6	3
20	Cyber security technologies	Trusted execution environment	1-6	3
21	Energy technologies	Batteries and accumulators	1-6	3
22	Energy technologies	Power generator	1-5	3
23	Energy technologies	Mobile power generator	1-5	3
24	Energy technologies	Mains power	1-6	3
25	Energy technologies	Off the grid power supply	1-6	3
26	Energy technologies	Liquid fuel	6	3
27	Energy technologies	Internal combustion engine	1-6	3
28	Information technologies	Big data analytics	1, 2	3
29	Information technologies	Data fusion	1-6	3
30	Information technologies	Management information systems	1, 2, 4, 5	3
31	Information technologies	Supercomputer	1, 2	3
32	Information technologies	Constructive Simulation	1-5	3
33	Information technologies	Virtual Simulation	1-6	3
34	Information technologies	Blockchain Technlogies	1, 2	3
35	Information technologies	Artificial Intelligence	1-6	3
36	Physical effect technologies	Ballistics (interior-, transitional-, external- and terminal ballistics)	3.1, 3.2	3
37	Physical protection technologies	Vulnerability models	1-6	3
38	Platform technologies	Fixed wing jet fighters	2, 3, 6.3	3
39	Platform technologies	Uncrewed Aerial Vehicles (UAV)	2, 3, 6	3
40	Platform technologies	Small UAV	2, 3	3
41	Platform technologies	Loitering Munition	2, 3, 6	3
42	Radar technologies	Primary radar	2	3
43	Radar technologies	Recognized air picture	2	3
44	Radar technologies	Identification friend or foe	2	3
45	Space technologies	Time References ("clocks")	1-3	3
46	Antenna technologies	AESA	1, 2	2
47	Antenna technologies	MIMO technology	1, 2	2
48	Antenna technologies	Adaptive beamforming	1, 2	2
49	Antenna technologies	Multifrequency antennas	1, 2	2
50	Antenna technologies	Conformal/Integrated antennas (textiles, aircraft)	1, 2	2
51	CBRNE sensor technologies	Ion drift detectors	2, 5	2
52	CBRNE sensor technologies	Mass sprectrometers	2, 5	2
53	CBRNE sensor technologies	Gamma ray detectors	2, 5	2
54	Communication technologies	HF radio technology	1	2
55	Communication technologies	VHF/UHF radio technology	1	2
56	Communication technologies	VoIP	1	2

57	Communication technologies	Wireless WAN/MAN/LAN technology	1	2
58	Communication technologies	Mobile adhoc networks (MANET)	1	2
59	Communication technologies	Cognitive radio technology	1, 2	2
60	Communication technologies	Directional beam technology	1	2
61	Communication technologies	Hardware encryption	1	2
62	Communication technologies	Wired network technologies	1	2
63	Communication technologies	Time allocation (synchronization)	1, 2	2
64	Communication technologies	Electronic Warfare	3.3	2
65	Computer technologies	Internet of things	1-6	2
66	Computer technologies	High Performance Computing	1-6	2
67	Countermeasure technologies	Military camouflage	2, 3, 6	2
68	Countermeasure technologies	Multi-spectral camouflage	2, 3, 6	2
69	Countermeasure technologies	Active camouflage	2, 3, 6	2
70	Countermeasure technologies	Stealth technology	1-6	2
71	Countermeasure technologies	Radiation-absorbent material	2, 3, 6.3	2
72	Countermeasure technologies	Chaff countermeasure	2, 3, 6.3	2
73	Countermeasure technologies	Flare countermeasure	2, 3, 6.3	2
74	Countermeasure technologies	Hardening against electromagnetic pulse	1-6	2
75	Cyber security technologies	Hardware security module	1-6	2
76	Cyber security technologies	Software verification	1-6	2
77	Cyber security technologies	Antivirus software	1-6	2
78	Cyber security technologies	Intrusion detection	1-6	2
79	Cyber security technologies	Denial-of-service techniques	1-6	2
80	Cyber security technologies	Traffic analysis	1-6	2
81	Cyber security technologies	Privacy-preserving technologies	1-6	2
82	Energy technologies	Propellants	3	2
83	Energy technologies	Pyrotechnics	3	2
84	Information technologies	Cloud computing security	1-6	2
85	Information technologies	Natural language processing	1, 2	2
86	Information technologies	Knowledge graph	1, 2	2
87	Information technologies	Reinforcement learning	1-6	2
88	Information technologies	Computer Vision	1-6	2
89	Information technologies	Multi-Agent Systems	1-6	2
90	Information technologies	Wargaming	1-6	2
91	Information technologies	Generative Artificial Intelligence	1-6	2
92	Navigation technologies	Satellite-based navigation (GNSS). Ie. GSP, GLONASS, Galileo)	1, 2	2
93	Navigation technologies	Geoinformation technology	1, 2	2
94	Navigation technologies	GNSS ECM/ECCM	1, 2	2
95	Navigation technologies	Inertial navigation systems	2	2
96	Navigation technologies	Multilateration	2	2
97	Optical sensor technologies	Digital camera	2	2
98	Optical sensor technologies	Infrared sensor	2	2
99	Optical sensor technologies	Hyperspectral imaging sensor	2	2
100	Optical sensor technologies	UV detectors	2	2
101	Optical sensor technologies	Photocathode	2	2
102	Optical sensor technologies	Optical amplifier	2	2
103	Optical sensor technologies	LIDAR sensor	2	2
104	Optical sensor technologies	Imagery intelligence	2	2
105	Physical effect technologies	Assault rifle	3	2
106	Physical effect technologies	Grenade launcher / Mortar	3	2
107	Physical effect technologies	Artillery guns	3	2
108	Physical effect technologies	Medium calibre guns	3	2
109	Physical effect technologies	Explosives	3	2
110	Physical effect technologies	Software impact models	3	2
111	Physical effect technologies	Software for mission planning and simulators	3	2
112	Physical effect technologies	Software and networks for fire control	1, 2, 3	2
113	Physical effect technologies	Rocket ballistics	3	2
114	Physical effect technologies	Fragmentation grenades	3	2
115	Physical effect technologies	Shape charge cartridges	3	2
116	Physical effect technologies	Projectile-forming charges	3	2
117	Physical protection technologies	Active protection technologies	3, 6.2	2
118	Physical protection technologies	ERA technology	3, 6.2	2
119	Physical protection technologies	NERA technology	3, 6.2	2
120	Physical protection technologies	Ceramics and composite materials	3, 6.2	2
121	Physical protection technologies	Electromagnetic armour	3, 6.2	2
122	Physical protection technologies	Mine detection technology	3.2, 6.2	2
123	Platform technologies	Fixed wing propellars	2, 3, 4, 6.3	2
124	Platform technologies	Helicopters	1-6	2
125	Platform technologies	Uncrewed Ground Vehicle (UGV)	1-6	2
126	Platform technologies	Uncrewed combat aerial vehicle	1, 2, 3, 6	2

127	Platform technologies	First Person View UAV (FPV Drone)	2, 3, 4, 6	2
128	Platform technologies	Military Robot	1-6	2
129	Platform technologies	Swarm Robots	3	2
130	Platform technologies	Lightly armoured vehicles	1-6	2
131	Radar technologies	Synthetic-aperture radar	2	2
132	Radar technologies	Radar tracker	2	2
133	Radar technologies	Cognitive radio	2	2
134	Radar technologies	MIMO radar	2	2
135	Radar technologies	Multistatic radar	2	2
136	Radar technologies	Radar signal processing	2	2
137	Radar technologies	Geo warping	2	2
138	Radar technologies	Multi-Sensor Data Fusion	2	2
139	Radar technologies	Classification algorithms	2	2
140	Radar technologies	Signals intelligence	2	2
141	Radar technologies	TCAS Traffic collision avoidance system	2	2
142	Radar technologies	ADS-B Automatic Dependent Surveillance–Broadcast	2	2
143	Space technologies	S/W SSA&SDA Analytics	1, 2	2
144	Space technologies	RAD active SSA&SDA	1, 2	2
145	Space technologies	S/W SIGINT Analytics	1, 2	2
146	Space technologies	OPT Inter-Satellite-Links	1, 2	2
147	Space technologies	OPT Up- and Down-Links	1, 2	2
148	Acoustic sensor technologies	Analogue and digital microphones	2	1
149	Acoustic sensor technologies	Microphone arrays	2	1
150	Acoustic sensor technologies	Artillery sound ranging	2	1
151	Acoustic sensor technologies	Infrasound	2	1
152	Acoustic sensor technologies	Acoustic location	2	1
153	Antenna technologies	Reconfigurable antenna	1, 2	1
154	Communication technologies	EHF/SHF radio technology	1	1
155	Communication technologies	Terahertz technology	1, 2	1
156	Communication technologies	Repeater- and amplyfying technologies	1	1
157	Communication technologies	Quantum encryption	1	1
158	Computer technologies	Active RFID technologies	1, 2, 4	1
159	Computer technologies	Passive RFID technologies	1, 2, 4	1
160	Computer technologies	Middleware	1-6	1
161	Computer technologies	Database systems	1-6	1
162	Computer technologies	Human computer interaction	1-6	1
163	Computer technologies	DNA digital data storage	1, 2	1
164	Computer technologies	Onboard Data handling	1, 2	1
165	Computer technologies	Edge computing	1, 2	1
166	Cyber security technologies	Deception technology	1, 2	1
167	Cyber security technologies	Reverse engineering of Malware	1, 2	1
168	Cyber security technologies	Big data security analytics	1, 2	1
169	Energy technologies	Hydropower technologies	1-6	1
170	Energy technologies	Solar collector technologies	1-6	1
171	Energy technologies	Wind Energy technologies	1-6	1
172	Energy technologies	BioEnergy technologies	1-6	1
173	Energy technologies	Geothermal power	1-6	1
174	Energy technologies	Small modular reactor	1-6	1
175	Energy technologies	Power-to-X	1-6	1
176	Information technologies	Machine learning	1, 2	1
177	Information technologies	Search engines	1, 2	1
178	Information technologies	Web crawling technologies	1, 2	1
179	Information technologies	Crowd sourcing technologies	1	1
180	Information technologies	Quantum Computing	1-6	1
181	Information technologies	Adversarial machine learning	1, 2	1
182	Information technologies	Distributed artificial intelligence	1, 2	1
183	Information technologies	Live Simulation	1-6	1
184	Information technologies	Digital twin	1, 2	1
185	Information technologies	Virtual reality	1-6	1
186	Information technologies	Augmented Reality	1-6	1
187	Information technologies	Mixed Reality	1-6	1
188	Manufacturing technologies	Digital Manufacturing	4, 5	1
189	Manufacturing technologies	4D Printing	4, 5	1
190	Manufacturing technologies	3D Printing	4, 5	1
191	Multi-purpose technologies	Deep learning	1, 2	1
192	Navigation technologies	Vision-based navigation	2	1
193	Optical sensor technologies	Spectral imaging	2	1
194	Optical sensor technologies	Interferometry	2	1
195	Optical sensor technologies	Laser	2	1
196	Optical sensor technologies	Image stitching	2	1

197	Optical sensor technologies	Panoramic cameras	2	1
198	Optical sensor technologies	Projection mapping	1, 2	1
199	Optical sensor technologies	Change detection	2	1
200	Optical sensor technologies	Smart camera	2	1
201	Physical effect technologies	Rifle cartridges	3	1
202	Physical effect technologies	Small arms and handguns	3	1
203	Physical effect technologies	Pistol cartridges	3	1
204	Physical effect technologies	Hollow-point bullet	3	1
205	Physical effect technologies	Armor-piercing ammunition	3	1
206	Physical effect technologies	Smoothbore guns	3	1
207	Physical effect technologies	Metallurgy and barrel production	3	1
208	Physical effect technologies	Explosive mines	3	1
209	Physical effect technologies	Solid propellant rocket technology	3	1
210	Physical effect technologies	Liquid propellant rocket technology	3	1
211	Physical effect technologies	Flash-bang grenades	3	1
212	Physical effect technologies	Shotgun rubber cartridges	3	1
213	Physical effect technologies	Materials science/ metal alloy	3	1
214	Physical effect technologies	APFSDS technology	3	1
215	Physical effect technologies	Metallurgy for APFSDS	3	1
216	Physical effect technologies	HESH charges	3	1
217	Physical effect technologies	Pressure charges	3	1
218	Physical effect technologies	Thermobaric technology	3	1
219	Physical effect technologies	Mechanical fuzes	3	1
220	Physical effect technologies	Electronic fuzes	3	1
221	Physical effect technologies	Frangible technology	3	1
222	Physical effect technologies	AHEAD technology	3	1
223	Physical effect technologies	Bunker penetrators	3	1
224	Physical effect technologies	High energy laser weapons	3	1
225	Physical effect technologies	High power microwaves	3	1
226	Physical effect technologies	Precision guided munition	3	1
227	Physical effect technologies	Hypersonic Weapon	3	1
228	Physical effect technologies	Directed-energy weapons	3	1
229	Physical effect technologies	Lethal autonomous weapons	3	1
230	Physical protection technologies	Concrete technology (HPFRC)	4	1
231	Platform technologies	Track technology	2, 6.1, 6.2	1
232	Platform technologies	Multi-wheel off-road technology	2, 6.1, 6.2	1
233	Platform technologies	Terramechanics	2, 4, 6.1, 6.2	1
234	Platform technologies	Drive and drive transmission technology	2, 4, 6.1, 6.2	1
235	Platform technologies	Ground robots (e.g. IED, Rescue)	2, 3, 4, 6.1, 6.2	1
236	Platform technologies	Avionics	2, 3, 6.3	1
237	Platform technologies	Aerodynamics	3, 6	1
238	Platform technologies	Sense and avoid technology	1, 2, 3, 6.3	1
239	Platform technologies	Flight simulator technologies	6.3	1
240	Platform technologies	Driving simulator technologies	6.1, 6.2	1
241	Platform technologies	Uncrewed Underwater Vehicles (UUV)	2, 4, 6	1
242	Platform technologies	Uncrewed Surface Vehicle (USV)	2, 3, 4, 6	1
243	Platform technologies	Medium altitude long endurance UAV (MALE UAV)	1, 2, 3, 4, 6.3	1
244	Platform technologies	High altitude long endurance UAV (HALE UAV)	1, 2, 3, 4, 6.3	1
245	Platform technologies	Humanoid Robot	2, 3, 4	1
246	Platform technologies	Payload-Technologies for uncrewed vehicles	3, 4	1
247	Platform technologies	Interoceptive Sensors	5	1
248	Platform technologies	Exteroceptive Sensors	1, 2	1
249	Platform technologies	Autnomous Navigation	1, 2	1
250	Platform technologies	Locomotion Subsystem	2, 4, 6.1, 6.2	1
251	Platform technologies	Navigation Subsystem	1, 2	1
252	Platform technologies	Mission Subsystem	2, 3	1
253	Platform technologies	Energy Subsystem	1-6	1
254	Platform technologies	Communication Subsystem	1, 2	1
255	Platform technologies	Self-Protection Subsystem	6	1
256	Platform technologies	Flight termination system	6.3	1
257	Platform technologies	Fault detection, isolation and recovery system (FDIR)	1-6	1
258	Platform technologies	Heavily armoured vehicles	2, 3.2, 6.2	1
259	Radar technologies	Airport surveillance radar	2	1
260	Radar technologies	Remote sensing	2	1
261	Radar technologies	Pulse compression	2	1
262	Radar technologies	Moving target indication	2	1
263	Radar technologies	6G Sensing	1, 2	1
264	Radar technologies	Passive Radar	2	1
265	Radar technologies	Quantum Sensing	1, 2	1
266	Radar technologies	Intelligent sensors	2	1

267	Robotics technologies	Human-Robot Collaboration	2, 3, 4, 5	1
268	Robotics technologies	Swarm intelligence	3	1
269	Space technologies	Adaptive Optics for terrestrial telescopes	1, 2	1
270	Space technologies	Space-based SIGINT Sensors	1, 2	1
271	Space technologies	Satellite-Prime Competencies	1, 2	1
272	Space technologies	Phased Array Antennas	1, 2	1
273	Space technologies	SATCOM Solutions	1, 2	1
274	Bio Technologies	Self-healing material	5	0.5
275	Bio Technologies	Human Enhancement	1-6	0.5
276	Communication technologies	Data compression	1-6	0.5
277	Energy technologies	Lubricants	4, 6	0.5
278	Energy technologies	Hybrid electric drivetrain	4, 6	0.5
279	Energy technologies	Electric drivetrain	4, 6	0.5
280	Information technologies	Hardware in the Loop Simulation	4, 6	0.5
281	Optical sensor technologies	Analog camera	2	0.5
282	Platform technologies	Diagnostic systems	4, 5	0.5
283	Platform technologies	Transport vehicles	4, 5, 6	0.5
284	Platform technologies	Autonomous or semi-autonomous vehicles	2, 4, 6	0.5
285	Platform technologies	Alternative drive concepts (e.g. legged)	2, 4, 6	0.5
286	Platform technologies	Soft robotics	2, 3, 4, 5	0.5
287	Platform technologies	Industrial Robots	4, 5	0.5