

4ART Holding AG, Steinhausen

Valuation of shares

31 July 2024

PRIVATE AND CONFIDENTIAL



4ART Holding AG
Mr. Niko Kipourus, Chairman
Mr. Vladimir Oster, CFO
Turmstrasse 30
CH-6312 Steinhausen

Dear Sirs,

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BDO Ltd
Schiffbaustrasse 2
8005 Zurich

Telephone: +41 44 444 35 55
Facsimile: +41 44 444 35 35
www.bdo.ch

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Yours faithfully

Zurich, 31 July 2024

BDO Ltd

Oliver Ambs

Jiaming Li

Definitions, abbreviations and glossary of terms

Abbreviation	Meaning
4ART	4ART Holding AG, Steinhausen and its investments
ARPU	Average revenue per user
B2B	Business to Business
B2C	Business to Customer
BDO	BDO Ltd, Zurich
CHF	Swiss Franc
DCF	Discounted Cash Flow (-method)
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation and amortisation
EUR	Euro
EV	Enterprise value
k	thousands
n.a.	Not applicable
NOPLAT	Net operational profit less adjusted taxes
USD	US Dollar
Valuation Date	30 June 2024
WACC	Weighted Average Cost of Capital

Contents

Imprint:

The following staff from BDO were involved in the preparation of this valuation report:

Oliver Ambs

Director
Head Valuation, Modeling & Analytics Switzerland

Direct: +41 44 444 37 52
Email: oliver.ambs@bdo.ch

Jiaming Li

Senior Manager
Valuation, Modeling & Analytics Switzerland

Direct: +41 44 444 59 86
Email: jiamig.li@bdo.ch

Cover image: BDO database

1 Project introduction	5
About 4ART Holding AG	6
Context of our work	7
2 Market, Business Plan and Assumptions	8
Art Market	9
Business plan: Marketing spending & active users	11
Business plan: Expected active users	12
Business plan: Revenues projections	13
Business plan: Costs projections	17
3 Discounted Free Cash Flow	18
Discounted cash flow method	19
Comparable Rates of Return for Start-Up Companies	20
Discounted cash flow method - result of valuation	21
Discounted free cash flow method - result of valuation	22

Section 1

Project introduction

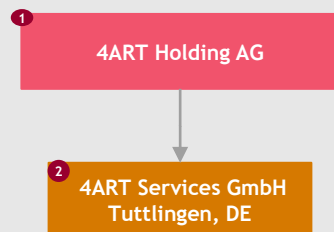
Project introduction	Page
About 4ART Holding AG	6
Context of our work	7

About 4ART Holding AG

Initial Situation and Assignment to BDO

4ART Holding AG

- ❶ 4ART Holding AG (hereinafter “4ART” or “Company”), the former Ovega Capital Holding AG established in Mai 2018 in Hünenberg, Switzerland. Since Mai 2019 is 4ART renamed as 4ART Holding AG and since February relocated in Steinhausen (also in Canton of Zug).
- ▶ 4ART is a private limited company under Swiss law. The company's share capital amounts to CHF 500'000 and consists of 50 million registered shares with a nominal value of CHF 0.01.
- ▶ 4ART Holding AG holds 100% of shares of following company as direct investment:
 - ❷ 4ART Services GmbH in Tuttlingen, DE.



About 4Art

- ▶ 4ART provides a platform with secured token technology for dealing, lending, shipping and collecting artworks.
- ▶ The technologies develop by 4Art provides an unmistakable unique identification of artworks with a digital fingerprint based on nano surface technology. Each digital fingerprint is secured in a blockchain.

4ART Holding AG

- ▶ The technology allows, among other features:
 - to identify an artwork as original,
 - to track an artwork when shipped,
 - to track damages on an artwork if sold or lent and
 - to secure and store all data in a blockchain
- ▶ Supposed clients are:
 - Art dealers and collectors
 - Museums
 - Insurance companies
 - Logistic companies

4ART Services GmbH

- ▶ 4ART Service GmbH provides Call center services for the application users.

Initial Situation and Assignment to BDO

- ▶ As of today, one product of Artpro is already in the market and will be relaunched in Q4 2024. Other products are ready-to-market and are going to be launched in Q4 2024 as well.
- ▶ Discussions with potential clients have been started. A road show is planned in cooperation with Google/Alphabet.
- ▶ To finance the ready-to-market steps, board and management of 4ART require a valuation analysis showing the potential of the company based on the possibilities of the developed technology and the market share.

Context of our work

Provided information and background

Scope of our work and valuation process

- ▶ Board of directors and management of 4ART engaged BDO to determine the current fair market value of the shares of the Company by using generally accepted valuation methodologies.
- ▶ The 30 of June 2024 has been determined as valuation date.
- ▶ The valuation is used for a financial round in order to raise capital from existing and new investors.
- ▶ The details of the scope of our engagement are set out in our offer, dated 14 June 2024 and agreed upon by the representatives of 4ART on 18 June 2024.
- ▶ With regards to the valuation analysis, we have had contact with the following representatives of 4ART or associated representatives:
 - Mr. Niko Kipouros, Chairman and Founder
 - Mr. Kai Zeh, CEO
 - Mr. Vladimir Oster, CFO
- ▶ As of 16 July 2024 BDO made a site visit at the premises of 4ART in Steinhausen/Zug in the company of Mr. Zeh where also the technology was demonstrated on an example.
- ▶ It was not in BDO's scope of work to review the technology in any way. Our entire work is based on the assumption that the technology is viable and that the present planning takes into account all possible costs that are necessary to make the technology ready-to-market.
- ▶ The valuation is based on the current business model and operational orientation of 4ART. Effects of future acquisitions and possible synergies that could be achieved through cooperations with investors were not taken into account. The basis for our work is therefore a "stand-alone" view.
- ▶ This report is not supposed to be a stand-alone report, providing all necessary information, it is an amendment only to all other information and documentation provided by the Company.

Received documents and assessment basis

- ▶ The following documents were provided and reflected in this report:
 - Business Plan
 - Audited financial statements of 4ART Holding AG from 2020 to 2022
 - Provisional financial statements of 4ART Holding AG 2023
 - Investors presentation as of July 2024
- ▶ BDO based its assessment on provided documents and information. In preparing this analysis, BDO assumed that financial information and other data relating to 4ART is accurate and complete and relied on said information without accepting any responsibility for the independent verification of such information.
- ▶ The information and criteria in this document are based on the prevailing market, corporate, economic and financial conditions as per 31 July 2024. Any circumstances thereafter may impact the information, which has been used as a basis for the analysis. BDO has no obligation to update, verify or confirm any information contained analysis.

Other sources of information

- ▶ All sources are quoted where used:
 - theartmarket.artbasel.com
 - Statista.com
 - Publicly available sources on the internet

Provided reports / current status

- ▶ Our work took place in June and July 2024. The following reports were provided in the course of our work:
- ▶ First full draft report provided on 31 July 2024

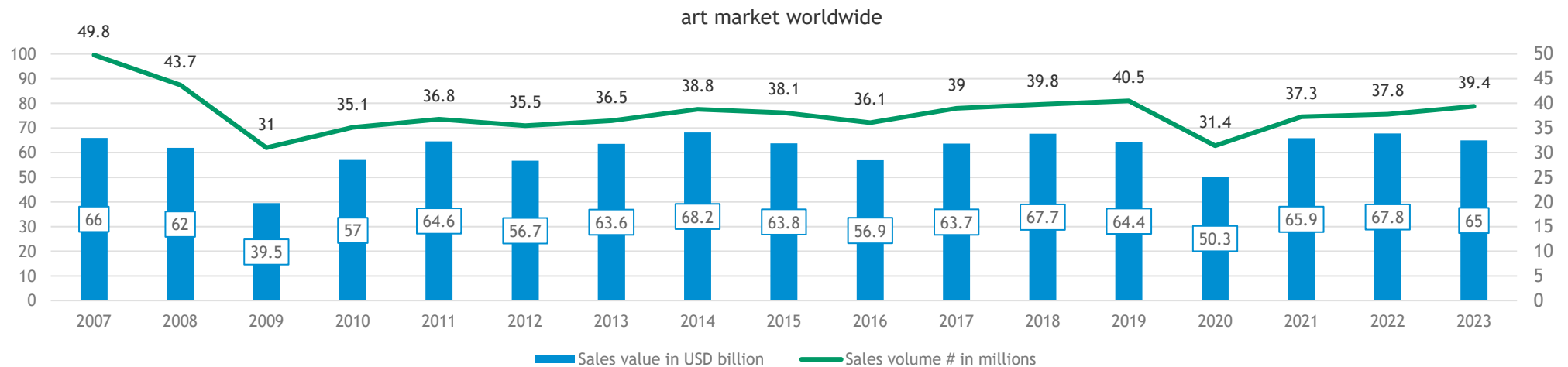
Section 2

Market, Business Plan and Assumptions

Market, Business Plan and Assumptions	Page
Art Market	9
Business plan: Marketing spending & active users	11
Business plan: Expected active users	12
Business plan: Revenues projections	13
Business plan: Costs projections	17

Art Market

Art market in the past from 2007 to 2023



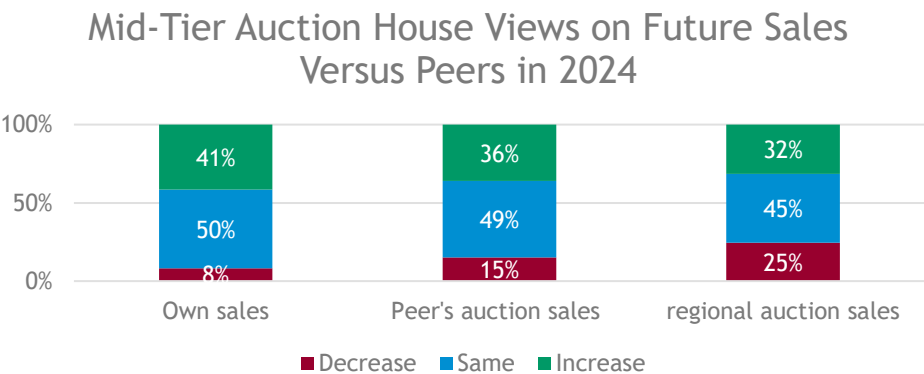
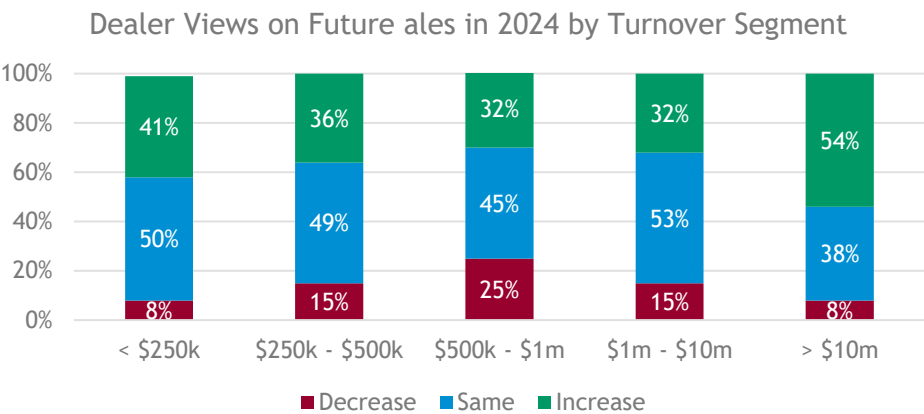
Source: statista, analysis BDO

Art market in the past

- ▶ The above depicted graphic shows the sales value and volume in the global art market from 2007 to 2023:
- ▶ There were two significant declines during this historical period:
 - 2009 financial crisis
 - 2020 global pandemic
- ▶ The market recovered quickly.
- ▶ A slightly drop in 2023 could be related to many factors, such as geopolitical issues, higher inflation, higher interest rate etc.
- ▶ As each transaction value can have very broad range. Therefore, the increase in sales volume does not mean an increase in sales value. This is the case in 2023.

Art Market

Outlook for 2024



Dealer Views on Future sales in 2024 by Turnover Segment

- 1 ▶ Dealers are divided according to their turnovers in different groups. Looking into 2024, in each group, only less than 25% of dealers predicted a decline in 2024.
- 1a ▶ Almost half of dealers in each segment, expect the optimistic biggest dealers, have the expectation that the market in 2024 remains the same as previous year.
- 1b ▶ At least one third of the dealers in each segment expected an improvement in sales.

Mid-Tier Auction House Views on Future Sales Versus Peers in 2024

- ▶ Also in auction sector, only minority had a pessimistic view for 2024.
- ▶ At least a same year as previous year is a dominated opinion.

Assumptions of 4ART for 2024

- 2a ▶ 4ART has the same view as the major dealers here. Therefore, 4ART assumes that the art market sales, both value and volume, will be about the same as 2023 in their business plan.
- 2b

2

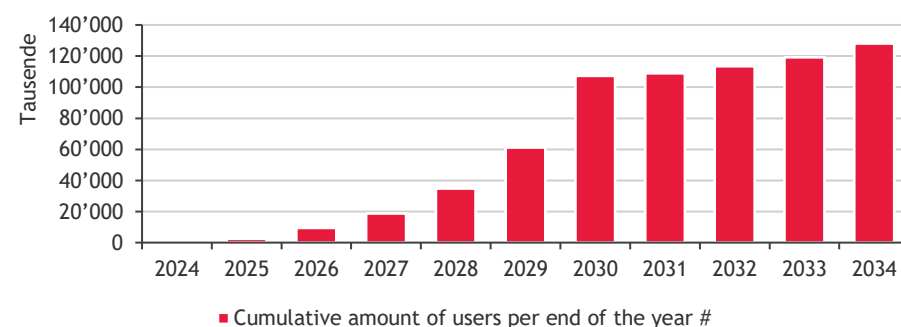
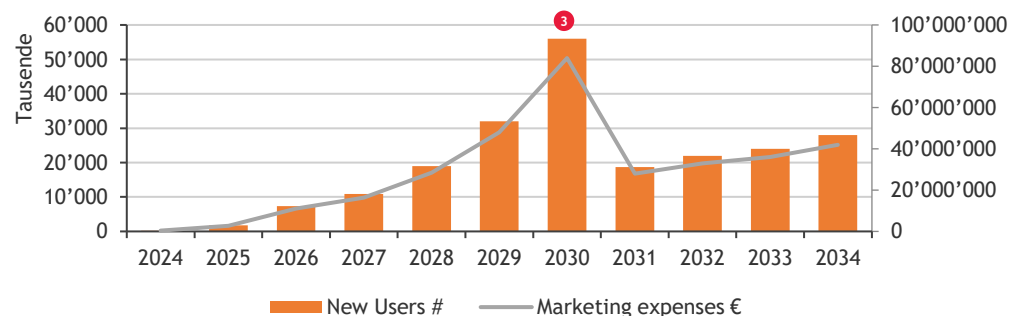
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Source: Outlook – The Art Basel & UBS Art Market Report 2024 By Arts Economics

Business plan: Marketing spending & active users

Budget and projection for the period from mid 2024 to 2034

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Marketing expenses €	372'000	2'677'000	11'000'000	16'300'000	28'500'000	48'000'000	84'000'000	28'000'000	33'000'000	36'000'000	42'000'000
4 Marketing Spending per new User €	2.20	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
New Users #	169'090	1'784'666	7'333'333	10'866'666	19'000'000	32'000'000	56'000'000	18'666'666	22'000'000	24'000'000	28'000'000
5 retention rate	84% start one year later										
Cumulative amount of users per end of the year #	742'066	2'408'001	9'356'053	18'725'750	34'729'629	61'172'888	107'385'226	108'870'255	113'451'013	119'298'849	128'211'034



- 1 To gain new users for the applications for artwork digitization and handling security, 4ART has to spend money for marketing.
- 2 For the period from 2024 to 2028, 4ART has a relative detailed budget for marketing spending. Those amounts depend mostly on the disposable capital.
- 3 2030 is the last year of the current decade milestone. Sometimes people use these time points to change or update something. Therefore, 4ART is planned to take advantage of this turning point and would like to spend more for marketing and advertising to gain much more new users than usual.
- 4 4Art are going to launch two new products in Q4 2024 and relaunch one existing product. The first step is always the hardest. Therefore, 4ART needs to invest more to gain a new user. At the beginning of next year, other new products will come into the market as well. 4ART believes that they can also acquire new users through word-of-mouth. The marketing spending per user should be reduced over time. In addition, an inflation of costs is considered as well. That is why the assumptions on marketing spending per user looks constant over time.
- 5 Based on the statistics*, industry average customer retention rate for both media and professional services sectors is 84%. This retention rate is applied here to calculate the cumulative amount of active users.

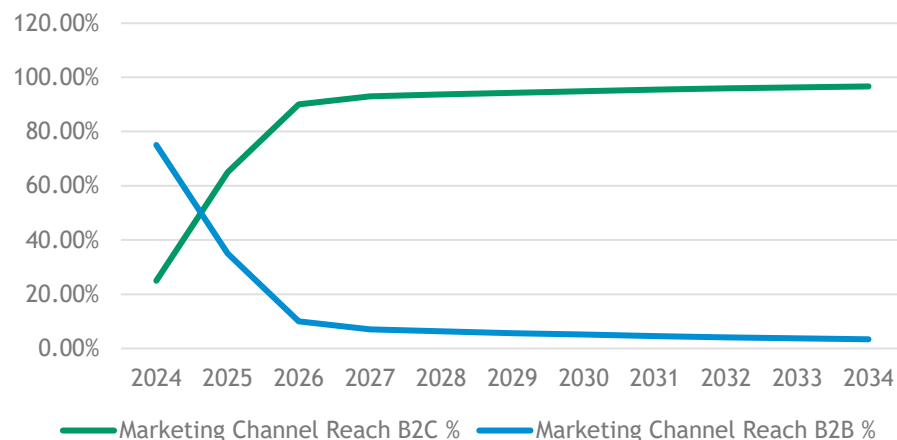
*Source: <https://explodingtopics.com/blog/customer-retention-rates> (queried on 19. July 2024)

Business plan: Expected active users

Split for B2C and B2B customers

Split of B2C & B2B shares	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cumulative amount of users per end of the year #	742'066	2'408'001	9'356'053	18'725'750	34'729'629	61'172'888	107'385'226	108'870'255	113'451'013	119'298'849	128'211'034
1 Marketing Channel Reach B2B %	75.00%	35.00%	10.00%	7.00%	6.30%	5.67%	5.10%	4.59%	4.13%	3.72%	3.35%
Cumulative amount of users per end of the year - PRO User # - B2B	556'549	842'800	935'605	1'310'802	2'187'966	3'468'502	5'479'868	5'000'084	4'689'418	4'438'020	4'292'605
7 Average amount of platform users - PRO User # - B2B	371'000	699'675	889'203	1'123'204	1'749'384	2'828'234	4'474'185	5'239'976	4'844'751	4'563'719	4'365'313
5 Marketing Channel Reach B2C %	25.00%	65.00%	90.00%	93.00%	93.70%	94.33%	94.90%	95.41%	95.87%	96.28%	96.65%
Cumulative amount of users per end of the year - Frequent Users # - B2C	185'517	1'565'201	8'420'448	17'414'948	32'541'663	57'704'386	101'905'358	103'870'171	108'761'595	114'860'829	123'918'429
7 Average amount of platform users - Frequent Users # - B2C	92'759	875'359	4'992'825	12'917'698	24'978'306	45'123'025	79'804'872	102'887'765	106'315'883	111'811'212	119'389'629

6 Split of B2C & B2B shares



B2B portion in cumulative active user per end of year

- 1 As the products of 4ART can save a lot of costs for art collectors, galleries, insurance and logistical companies, higher portion of customers are expected to be B2B customers.
- 2 4ART projected the first three years portions in detail.
- 3 In 2027, 70% of 2026's proportion is expected.
- 4 From 2028 onwards, each year's proportion is projected as 90% of previous year.

B2C portion in cumulative active users per end of year

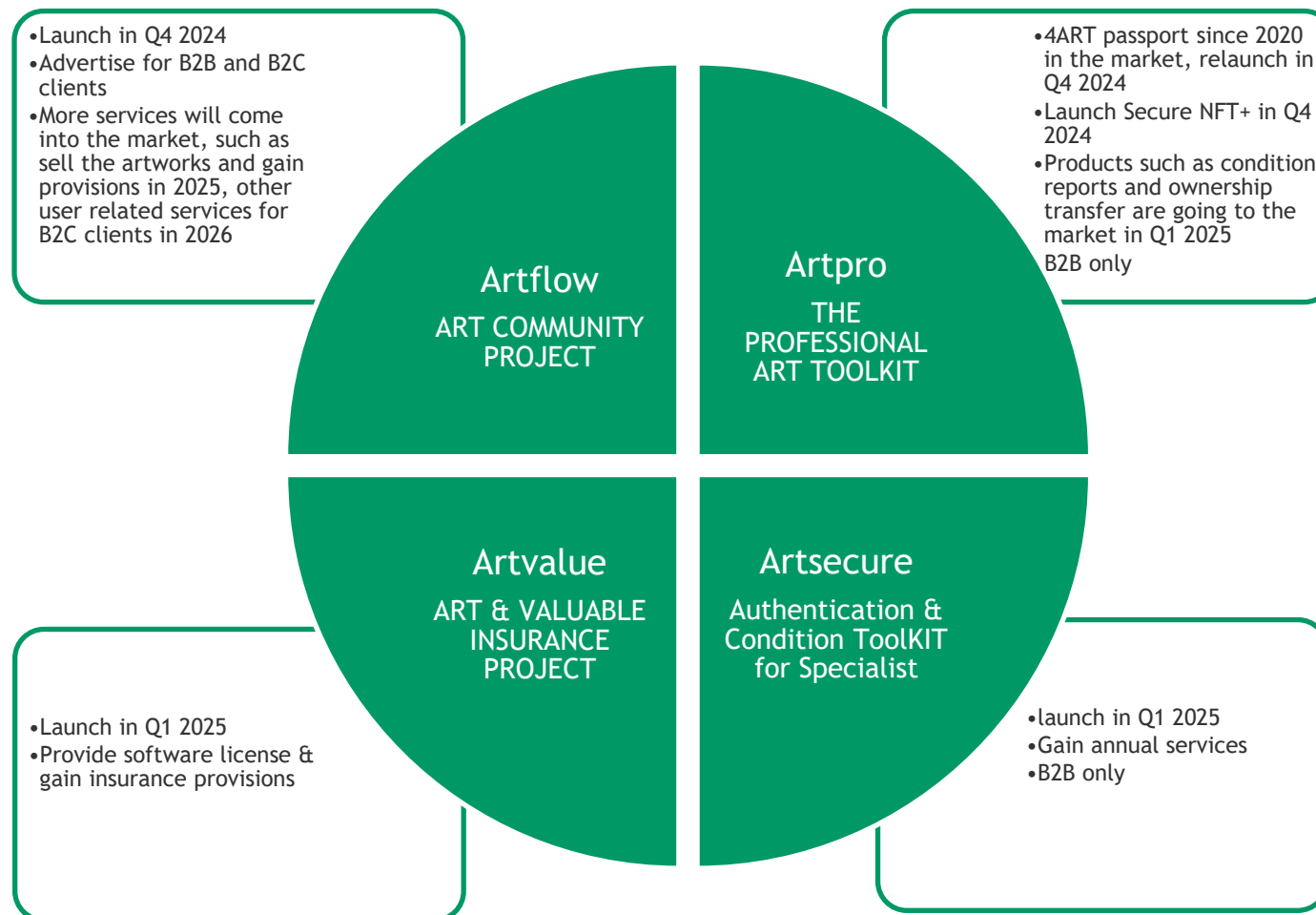
- 5 The rest part of active users are B2C customers.

Split of B2C & B2B proportions

- 6 After all, the number of customers of B2B customers is limited. As time goes by, the proportion of B2C customers among cumulative active users will become higher and higher.
- 7 Average amount of platform users are calculated as average of amounts of current of previous year.

Business plan: Revenues projections

Products introduction



Business plan: Revenues projections

ARTPRO

ARTPRO - THE PROFESSIONAL ART TOOLKIT	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Artworks/Artist AVG #	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs	10 AWs
2 Active Selling Artists %	0.05%	0.20%	1.50%	4.00%	8.00%	13.00%	18.00%	20.00%	22.00%	24.00%	26.00%
4ART Passport Creations (Artworks * Selling * PRO Users) # - B2B	1'855	13'993	133'380	449'281	1'399'507	3'676'704	8'053'533	10'479'952	10'658'452	10'952'926	11'349'813
3 4ART Passport Creations (10€/pcs bis 13€/pcs) € - B2B	18'550 €	139'935 €	1'467'184 €	4'942'095 €	15'394'579 €	44'120'450 €	96'642'396 €	125'759'424 €	138'559'879 €	142'388'033 €	147'547'563 €
4 Ownership Transfer (Platform Sales * 2) # - B2B	0 €	843 €	7'017 €	26'216 €	87'519 €	225'453 €	493'188 €	500'008 €	515'836 €	532'562 €	558'039 €
5 Ownership Transfer (100€ bis 150€) € - B2B	0 €	84'280 €	771'874 €	2'883'764 €	10'502'237 €	27'054'316 €	64'114'456 €	65'001'092 €	72'217'037 €	74'558'736 €	83'705'798 €
6 Condition Reports (No of Ownership Transfers * 1,5) # - B2B	0 €	1'264 €	10'526 €	39'324 €	131'278 €	338'179 €	739'782 €	750'013 €	773'754 €	798'844 €	837'058 €
7 Condition Reports (Price 100€ bis 150€ AVG) € - B2B	0 €	126'420 €	1'157'811 €	4'325'647 €	15'753'355 €	40'581'473 €	96'171'683 €	97'501'638 €	108'325'556 €	111'838'104 €	125'558'696 €
8 Create Secure NFT+ (est. same as 4ART Passport) # - B2B	464 €	13'993 €	133'380 €	449'281 €	1'399'507 €	3'676'704 €	8'053'533 €	10'479'952 €	10'658'452 €	10'952'926 €	11'349'813 €
9 Create Secure NFT+ (Price 20€ bis 45€ AVG) € - B2B	9'275 €	279'870 €	3'334'509 €	11'232'035 €	41'985'216 €	110'301'126 €	281'873'655 €	366'798'320 €	426'338'088 €	438'117'024 €	510'741'563 €
TOTAL REVENUE	27'825 €	630'505 €	6'731'379 €	23'383'541 €	83'635'387 €	222'057'365 €	538'802'190 €	655'060'474 €	745'440'560 €	766'901'897 €	867'553'619 €

- 1 To project the number of 4ART passport creations, 4ART assumed that the active selling artists will sell 10 artworks on average per year.
- 2 The proportion of the active selling artists is expected from 0.05% of B2B users in 2024 to increase to 26% in 2034.
- 3 4ART set the price for one passport as EUR 10 in 2024 and will increase this to EUR 13 in 2032 and keep the price constant afterwards.
- 4 The number of ownership transfers are considered as two times of the sold artworks in the platform.
- 5 4ART planned to charge the B2B users for each ownership transfer from EUR 100 on average. In 2034, they expected the average ownership transfer fee will be about EUR 150 on average.
- 6 Condition report provides the details about the condition of an artwork at a time point, such as before / after shipment. Therefore, 4ART projected the amount of condition reports as 1.5 times of numbers of ownership transfers.
- 7 The planned average revenue from condition reports is the same as for ownership transfer.
- 8 The amount of secure NFT+ creations are projected as the same as 4ART passports. The only difference is in 2024. The reason is, the 4ART passport creation is already on the market. In Q4 2024, there is only a relaunch for this product. But secure NFT1 creation will be the first time in the market.
- 9 The average price for secure NFT+ creation is estimated to be EUR 20 in 2024 and gradually increase to EUR 45 in 2034.

Business plan: Revenues projections

ARTFLOW

ARTFLOW - ART COMMUNITY PROJECT	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Advert Income per user	0.30 €	0.60 €	1.00 €	1.40 €	1.80 €	2.30 €	2.80 €	3.30 €	3.90 €	4.50 €	5.10 €
2 Advert Income on AVG platform users - Total - B2C	27'828 €	525'215 €	4'992'825 €	18'084'777 €	44'960'950 €	103'782'956 €	223'453'642 €	339'529'623 €	414'631'944 €	503'150'454 €	608'887'108 €
Advert Income on AVG platform users - Total - B2B	111'300 €	419'805 €	889'203 €	1'572'485 €	3'148'891 €	6'504'938 €	12'527'718 €	17'291'921 €	18'894'529 €	20'536'736 €	22'263'094 €
Other Services per user	0.00 €	0.00 €	0.30 €	0.40 €	0.50 €	0.60 €	0.70 €	0.80 €	0.90 €	1.00 €	1.10 €
3 Other Services - Total - B2C	0 €	0 €	1'497'847 €	5'167'079 €	12'489'153 €	27'073'815 €	55'863'410 €	82'310'212 €	95'684'295 €	111'811'212 €	131'328'592 €
4 Artwork Sales 25% of Active Selling Artists # - B2B	0 AS	421 AS	3'509 AS	13'108 AS	43'759 AS	112'726 AS	246'594 AS	250'004 AS	257'918 AS	266'281 AS	279'019 AS
5 Artwork Sales Provision (AVG Sales Price of 1,1k€ / 15% PROV) € - B2B	0 €	69'531 €	578'906 €	2'162'823 €	7'220'288 €	18'599'842 €	40'688'020 €	41'250'693 €	42'556'468 €	43'936'398 €	46'038'189 €
TOTAL REVENUE	139'128 €	1'014'551 €	7'958'780 €	26'987'165 €	67'819'282 €	155'961'551 €	332'532'790 €	480'382'448 €	571'767'236 €	679'434'800 €	808'516'982 €

- 1 4ART expected that the advert income per user will increase from EUR 0.30 in 2024 till EUR 5.10 in 2034.
- 2 The annual average platform users for both B2C and B2B segments are applied to project the revenues.
- 3 As aforementioned, 4ART planned to provide new services for B2C users in 2026. The revenue per use is estimated as EUR 0.3 in 2024 and expected to reach EUR 1.10 per user.
- 4 4ART assumed that 25% active selling artists will sell their artworks.
- 5 4ART will get 15% of artwork sales as provisions. To project the provisions, 4ART assumed that the average sale price of artworks is around EUR 1'100.

Business plan: Revenues projections

ARTVLAUE & ARTSECURE

ARTVALUE - ART & VALUABLE INSURANCE PROJECT	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Number of Users (0,15% - 0,6%)	0 USR	1'313 USR	9'986 USR	32'294 USR	74'935 USR	157'931 USR	319'219 USR	462'995 USR	531'579 USR	614'962 USR	716'338 USR
2 SW License per User (12€ bis 21€) € - B2C	12.00 €	12.00 €	13.00 €	14.00 €	15.00 €	16.00 €	17.00 €	18.00 €	19.00 €	20.00 €	21.00 €
SW License Total € - B2C	0 €	15'756 €	129'813 €	452'119 €	1'124'024 €	2'526'889 €	5'426'731 €	8'333'909 €	10'100'009 €	12'299'233 €	15'043'093 €
3 Insurance Provision (150€ - SW License) * Growth rate per User € - B2C	138.00 €	138.00 €	142.14 €	146.40 €	150.80 €	155.32 €	159.98 €	164.78 €	169.72 €	174.81 €	180.06 €
4 Insurance Provision TOTAL € - B2C	0 €	181'199 €	1'419'360 €	4'728'013 €	11'299'910 €	24'529'813 €	51'068'677 €	76'291'944 €	90'221'037 €	107'504'075 €	128'982'848 €
TOTAL REVENUE	0 €	196'956 €	1'549'174 €	5'180'133 €	12'423'934 €	27'056'702 €	56'495'408 €	84'625'853 €	100'321'046 €	119'803'309 €	144'025'941 €

- 1 4ART applied average B2C users as the basis to project the B2C clients here. In 2025, 4ART estimated that only 0.15% of the average B2C users will use the software license of ARTVALUE. And this portion is estimated to increase gradually to 0.6% in 2034
- 2 The software license price is expected to increase from EUR 12 in 2025 to EUR 21 per user
- 3 Insurance provision is based on a basis price of EUR 150 less license fees for the first two years, from 2026 onwards the provision is supposed to growth by 3% annually based on analysis by management
- 4 The number of users is like B2B numbers

ARTSECURE - Authentication & Condition ToolKIT for Specialist	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
5 Number of Certified Expert Users (0,1% to 1,4%)	0 USR	843 USR	2'807 USR	6'554 USR	15'316 USR	31'217 USR	54'799 USR	55'001 USR	56'273 USR	57'694 USR	60'096 USR
6 Yearly Service Fee € - B2B	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €	499.00 €
Yearly Service Fee TOTAL € - B2B	0 €	420'557 €	1'400'601 €	3'270'451 €	7'642'565 €	15'577'042 €	27'344'541 €	27'445'461 €	28'080'235 €	28'789'436 €	29'988'139 €
TOTAL REVENUE	0 €	420'557 €	1'400'601 €	3'270'451 €	7'642'565 €	15'577'042 €	27'344'541 €	27'445'461 €	28'080'235 €	28'789'436 €	29'988'139 €

- 5 Number of certified expert users are projected on the basis of end of year B2B clients. In 2025, the portion of certified expert users is estimated as 0.1% and increase gradually to 1.4% in 2034.
- 6 Annual service fee is fixed as EUR 499. Whether an expert joint at the beginning of year or middle of year, the fees will be charged fixed. That is why 4ART use the end of year B2B Clients as the projection basis.

Business plan: Costs projections

Split for B2C and B2B customers

COST PROJECTION 2024-2034											
in EUR	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Marketing Cost	372'000	2'677'000	11'000'000	16'300'000	28'500'000	48'000'000	84'000'000	28'000'000	33'000'000	36'000'000	42'000'000
1 Human Ressources	660'000	1'100'000	3'527'987	11'764'258	34'304'234	84'130'532	191'034'986	249'502'847	289'121'815	318'985'888	370'016'936
2 Social Insurance	125'400	209'000	670'317	2'235'209	6'517'804	15'984'801	36'296'647	47'405'541	54'933'145	60'607'319	70'303'218
3 Product Development	350'000	750'000	950'000	2'941'064	8'576'058	21'032'633	47'758'746	62'375'712	72'280'454	79'746'472	92'504'234
4 Product Maintenance	15'000	22'626	176'399	588'213	1'715'212	4'206'527	9'551'749	12'475'142	14'456'091	15'949'294	18'500'847
5 IT Infrastructure	216'000	324'000	486'000	729'000	1'093'500	1'640'250	2'460'375	3'690'563	5'535'844	8'303'766	12'455'648
6 Operating Expenses	231'000	385'000	1'234'795	4'117'490	12'006'482	29'445'686	66'862'245	87'325'997	101'192'635	111'645'061	129'505'928
7 Distribution Costs	45'000	67'877	529'198	1'764'639	5'145'635	12'619'580	28'655'248	37'425'427	43'368'272	47'847'883	55'502'540
TOTAL COST	2'014'400	5'535'503	18'574'697	40'439'873	97'858'925	217'060'009	466'619'997	528'201'228	613'888'256	679'085'683	790'789'351

- 1 ▶ **Human Resources:** Projected costs for the first two years are management's budgets. From 2026 onwards, the costs are estimated as 20% of total revenues.
- 2 ▶ **Social insurance contribution** are planned as 19% of costs for human resources expenses over the entire period.
- 3 ▶ **Product development:** Projected costs for the first three years are management's budget. From 2027 onwards, the costs are estimated as 5% of total revenues.
- 4 ▶ **Production Maintenance:** The projected expenses for 2024 is based on management's budget. From 2026 onwards, the costs are estimated as 1% of total revenues.
- 5 ▶ 4ART budgeted USD 216k for **IT infrastructure expenses** in 2024. Afterwards 4ART planned to spend 1.5 times of previous years expenses.
- 6 ▶ 4ART projected the **operating expenses** as 35% of human resources expenses over the entire period.
- 7 ▶ 4ART budgeted USD 45k for **distribution costs** in 2024. Afterwards 4ART projected this costs as 3% of total annual revenues.

Section 3

Discounted Free Cash Flow

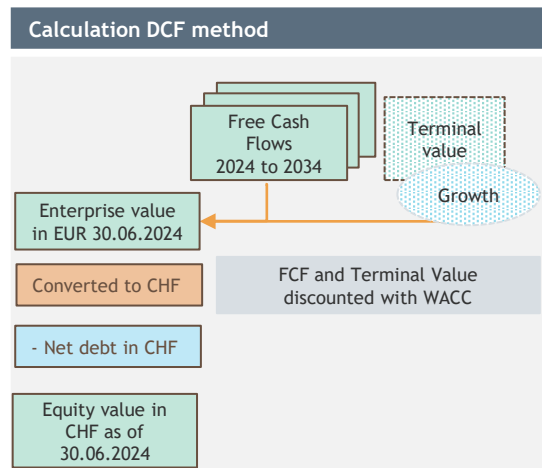
Discounted Free Cash Flow	Seite
Discounted cash flow method	19
Comparable Rates of Return for Start-Up Companies	20
Discounted cash flow method - result of valuation	21
Discounted free cash flow method - result of valuation	22

Discounted cash flow method

This method is the primary method to evaluate 4ART

Calculation Free Cash Flows
Cash Flow (EBITDA)
- Depreciation
= EBIT
- Tax
+ Depreciation
± Changes to Net Working Capital
- Capital expenditures
= Free Cash Flow (FCF)

Source: BDO



Source: BDO

Discounted Cash Flow method (DCF method)

- ▶ The DCF method is based on the theoretical approach that when determining the value of a company the expected net income of an investor should be discounted according to the time value of money and the inherent risk. When valuing companies, the expected future free cash flows are used and discounted to their net present value. Free cash flows are based on the operating gross cash less any investments in fixed assets and net working capital.
- ▶ The valuation is based on a long-term business plan prepared by the management team.
- ▶ The enterprise value is derived as the sum of the discounted free cash flows. In order to define the 4ART's value, i.e. the value of all shares, any interest-bearing debt and debt-like items have to be deducted while non-operating assets are added.

Valuation principles

- ▶ Following the principles of going-concern and stand-alone, only information and assumptions are contained in the valuation that are known and documented as of the date of the valuation.
- ▶ The current planning from management is based on many assumptions. Especially, the most products are not in the market yet. Therefore, there are several uncertainties regarding acceptance of the products. Such uncertainties are not covered with a regular discount rate (WACC) but must be reflected otherwise:
 - We consider to apply Venture Capital Rates of Return for company in the appropriate stage as discount rate to reflect the risks.

Comparable Rates of Return for Start-Up Companies

According to description, 4ART is now in the second / expansion stage

Venture Capital Rates of Return

- ▶ Rates of return required during each stage of financing according to studies performed by QED Research, Inc. and Entrepreneurial Finance are summarized in the following chart:

Venture Capital Rates by Stage of Development		
Stage	QED Median (%)	Entrepreneurial Finance (%)
Start-up	50-70	50-100 or more
First Stage	40-60	40-60
Second Stage	35-50	30-40
Third stage	30-50	20-30
Fourth stage	30-40	20-30
Initial Public Offering	25-35	20-30

Stage of development	Plummer ¹⁾	Scherlis and Sahlman ²⁾	Sahlman, Stevenson, and Bhidé ³⁾
Start-up	50-70	50-70	50-100
First Stage or early development	40-60	40-60	40-60
Second Stage or expansion	35-50	35-50	30-40
Bridge / IPO	25-35	20-35	20-30

The stages of development are defined as follows:

- ▶ **First Stage** - In the first stage of development, investments proceed if prototypes are established enough to alleviate some technical risk and the addressable market appears promising. Discount rates for companies in this category are between 40% and 60%.
- ▶ **Second Stage** - In the second stage of development, sufficient products are shipped to gain representative feedback from the market. The company is still unprofitable or only at break-even point. Discount rates for companies in this category are between 30% and 50%.
- ▶ **Third Stage** - Sales growth for companies in this stage of development is usually steep and downside investment risk is lower. However, the rapid expansion requires more working capital than can be generated from internal cash flow. Discount rates for companies in this category are between 20% and 50%.
- ▶ **Fourth Stage** - Companies in this stage may still need outside cash to sustain rapid growth, but are successful and stable enough, so that the downside risk to outside investors is significantly reduced. Discount rates for companies in this category are between 20% and 40%.
- ▶ **Start-up investments** - are typically made in enterprises that are less than a year old. The venture funding is to be used for product development, prototype testing, and test marketing.
- ▶ **Early development-stage investments** - are made in enterprises that have developed prototypes that appear viable and for which further technical risk is deemed minimal, although commercial risk might be significant.
- ▶ **Enterprises in the expansion stage** - usually have shipped products to customers (including beta versions).
- ▶ **Bridge/IPO financing** - covers activities such as pilot plant construction, production design, and production testing, as well as bridge financing in anticipation of a later IPO.

Sources:

[1] James L. Plummer, QED Report on Venture Capital Financial Analysis

[2] Daniel R. Scherlis and William A. Sahlman, A method for Valuing High-Risk, Long-Term Investments

[3] William A. Sahlman, Howard H. Stevenson, Amar V. Bhidé, et al., Financing Entrepreneurial Ventures

Discounted cash flow method - result of valuation

Based on DCF method, the enterprise value of 4ART amounts to EUR 237.4 million as of the valuation date

DCF			01.01.2024	01.01.2025	01.01.2026	01.01.2027	01.01.2028	01.01.2029	01.01.2030	01.01.2031	01.01.2032	01.01.2033	01.01.2034	
	EoP	30.06.2024	31.12.2024	31.12.2025	31.12.2026	31.12.2027	31.12.2028	31.12.2029	31.12.2030	31.12.2031	31.12.2032	31.12.2033	31.12.2034	
EUR		30.06.2024	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TV
Total Revenues			166'953	2'262'569	17'639'933	58'821'290	171'521'168	420'652'661	955'174'929	1'247'514'236	1'445'609'076	1'594'929'441	1'850'084'681	
Third-party Costs			-8'348	-113'128	-881'997	-2'941'064	-8'576'058	-21'032'633	-47'758'746	-62'375'712	-72'280'454	-79'746'472	-92'504'234	
1 Production yield			158'605	2'149'440	16'757'936	55'880'225	162'945'110	399'620'028	907'416'183	1'185'138'524	1'373'328'622	1'515'182'969	1'757'580'447	
2 Total operational costs			-2'014'400	-5'535'503	-18'574'697	-40'439'873	-97'858'925	-217'060'009	-466'619'997	-528'201'228	-613'888'256	-679'085'683	-790'789'351	
EBITDA			-1'855'795	-3'386'062	-1'816'760	15'440'352	65'086'185	182'560'019	440'796'186	656'937'296	759'440'366	836'097'286	966'791'095	
EBITDA Margin			-1111.57%	-149.66%	-10.30%	26.25%	37.95%	43.40%	46.15%	52.66%	52.53%	52.42%	52.26%	
3 D&A			-6'600	-17'600	-52'880	-170'522	-513'565	-1'348'270	-3'247'620	-5'707'369	-8'480'944	-11'327'761	-14'186'625	
EBIT			-1'862'395	-3'403'662	-1'869'640	15'269'829	64'572'620	181'211'749	437'548'566	651'229'927	750'959'422	824'769'525	952'604'471	
4 EBIT Margin			-1174.24%	-158.35%	-11.16%	27.33%	39.63%	45.35%	48.22%	54.95%	54.68%	54.43%	54.20%	
./. Fictitious taxes	11.85%		0	0	0	-963'895	-7'651'855	-21'473'592	-51'849'505	-77'170'746	-88'988'692	-97'735'189	-112'883'630	
NOPLAT			-1'862'395	-3'403'662	-1'869'640	14'305'935	56'920'764	159'738'157	385'699'061	574'059'181	661'970'731	727'034'336	839'720'841	
5 Add-on Depreciation			6'600	17'600	52'880	170'522	513'565	1'348'270	3'247'620	5'707'369	8'480'944	11'327'761	14'186'625	
CAPEX			-33'000	-55'000	-176'399	-588'213	-1'715'212	-4'206'527	-9'551'749	-12'475'142	-14'456'091	-15'949'294	-18'500'847	
4 Changes in working capital			-1'058'984	-628'685	-4'613'209	-12'354'407	-33'809'964	-74'739'448	-160'356'680	-87'701'792	-59'428'452	-44'796'109	-76'546'572	
Free Cash-flow (FCF)			-2'947'779	-4'069'747	-6'606'369	1'533'837	21'909'154	82'140'452	219'038'251	479'589'615	596'567'132	677'616'693	758'860'047	774'037'248
6 Discount rate	40.00%		40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
Mid-year discounting			0.2500	1.2500	2.2500	3.2500	4.2500	5.2500	6.2500	7.2500	8.2500	9.2500	10.2500	10.2500
PV-Factor			0.9193	0.6567	0.4690	0.3350	0.2393	0.1709	0.1221	0.0872	0.0623	0.0445	0.0318	0.0836
Yearfrac			0.5000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Present value FCF			-1'354'980	-2'672'437	-3'098'666	513'882	5'243'019	14'040'575	26'743'592	41'825'536	37'162'338	30'150'864	24'118'446	64'738'987
PV FCF 2023-2031			172'672'170											
PV TV Growth rate in TV	2%		64'738'987											
7 Enterprise value (100% shares) as of 30.06.2024 in EUR			237'411'156											
CHF/ EUR per 30.06.2024			0.96295											
8 Enterprise value in CHF			228'615'073											
+ Cash			18'778											
- Short-term loan			-1'168'340											
- Long-term loan			-396'443											
9 Equity value as of 30.06.2024 in CHF			227'069'069											

Value based on DCF approach

- 1 Total revenues are sum of the projected revenues from all the four core businesses.
- 2 4ART considered 5% of total revenues as third-party costs.
- 3 According to the business plan, 4ART is expected to achieve a positive EBITDA-margin in 2027 and to reach 52.66% in 2031 as stay on the level afterwards.
- 4 4ART planned to invest 5% of annual human resources expenses as fixed assets. A useful life of five year is considered for depreciation.
- 5 Tax rate of 11.85% is average corporate tax in canton Zug.
- 6 Net Working Capital is assumed to be 30% of total revenues.
- 7 Growth rate in terminal value is assumed to be 2%. This applied on FCF level of 2034.
- 8 Business plan is created in EUR, financial reports are presented in CHF. Therefore, the enterprise value is translated to CHF by using the exchange rate as of the valuation date.
- 9 The last available balance sheet is as of 31.12.2023. We assumed there are no significant changes since then.

Discounted free cash flow method - result of valuation

Sensitivity analysis

Results of sensitivity analysis

- Changes in the discount rate and terminal growth rate results in a sensitivity range of **1** EUR 130 million to **2** EUR 458 million for enterprise value.
- To translate the value in CHF and consider the net debt position, the equity value of 4ART as of the valuation date ranges from **3** CHF 124 million to **4** CHF 440 million.

in EUR		TV growth		
Enterprise value		1.00%	2.00%	3.00%
Discount rate	50.00%	1 130'045'102	131'168'429	132'352'476
	40.00%	235'132'761	237'411'156	239'812'709
	30.00%	448'049'068	452'918'991	2 458'052'154

in CHF		TV growth		
Equity value		1.00%	2.00%	3.00%
Discount rate	50.00%	3 123'680'926	124'762'634	125'902'812
	40.00%	224'875'087	227'069'069	229'381'643
	30.00%	429'902'845	434'592'338	4 439'535'317

Source: Management, analysis BDO

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