

WISeKey International Holding Ltd

Half-year Report

January – June 2021

WISeKey International Holding AG

Unaudited Interim Consolidated Financial statements

The page numbers below refer only to the F pages of the interim report.

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1. Unaudited Consolidated Statement of Comprehensive Income / (Loss)

	Unaudited 6 months en	ided June 30,	Note
USD'000	2021	2020	ref.
	0.045	0.004	20
Net sales	9,945	8,024	30
Cost of sales	(6,373)	(4,702)	
Gross profit	3,572	3,322	
Other operating income	114	7	
Research & development expenses	(2,129)	(2,768)	
Selling & marketing expenses	(3,420)	(2,957)	
General & administrative expenses	(9,344)	(4,916)	
Total operating expenses	(14,779)	(10,634)	
Operating loss	(11,207)	(7,312)	
Non-operating income	6,937	275	32
Gain on derivative liability	-	44	6
Gain / (loss) on debt extinguishment	-	-	· ·
Interest and amortization of debt discount	(455)	(239)	25
Non-operating expenses	(1,439)	(1,651)	33
Loss before income tax expense	(6,164)	(8,883)	
Loss before mounte tax expense	(0,104)	(0,000)	
Income tax expense	56	(2)	
Loss, net	(6,108)	(8,885)	
N. C 10	(0.400)	(0.005)	
Net income / (loss)	(6,108)	(8,885)	
Less: Net income / (loss) attributable to noncontrolling interests	(1,767)	(187)	
		(- /	
Net income / (loss) attributable to WISeKey International Holding AG =	(4,341)	(8,698)	
Earnings per share			
Basic	(0.10)	(0.23)	35
Diluted	(0.10)	(0.23)	35
Earning per share attributable to WISeKey International Holding AG			
Basic	(0.07)	(0.22)	35
Diluted	(0.07)	(0.22)	35
Other comprehensive income / (loss), net of tax:			
Foreign currency translation adjustments	(777)	571	
Change in unrealized gains related to available-for-sale debt securities	(5,564)	-	10
Defined benefit pension plans:	(0,00.)		27
Net gain (loss) arising during period	140	204	
Other comprehensive income / (loss)	(6,201)	775	
Comprehensive income / (loss)	(12,309)	(8,110)	
-			
Other comprehensive income / (loss) attributable to noncontrolling interests	80	(15)	
Other comprehensive income / (loss) attributable to WISeKey		(10)	
International Holding AG	(6,281)	790	
- -			
Comprehensive income / (loss) attributable to noncontrolling interests	(1,687)	(202)	
Comprehensive income / (loss) attributable			
to WISeKey International Holding AG	(10,622)	(7,908)	

The accompanying notes are an integral part of these consolidated financial statements.

2. Unaudited Consolidated Balance Sheet

USD'000	As at June 30, 2021 (unaudited)	As at December 31, 2020	Note ref.
ASSETS	2021 (unuduncu)	2020	161.
Current assets			
Cash and cash equivalents	38,532	19,650	7
Restricted cash, current	108	2,113	7
Accounts receivable, net of allowance for doubtful accounts	3,304	2,900	8
Notes receivable from employees and related parties	124	37	9
Available-for-sale debt security	.2.	9,190	10
Inventories	2,471	2,474	11
Prepaid expenses	1,087	649	
Deferred charges, current	175	836	
Other current assets	679	814	12
Total current assets	46,480	38,663	12
Noncurrent assets			
Notes receivable, noncurrent	165	183	13
Deferred income tax assets	18	3	
Deferred tax credits	557	1,312	15
Property, plant and equipment net of accumulated depreciation	751	1,000	16
Intangible assets, net of accumulated amortization	9,924	9	17
Finance lease right-of-use assets	202	246	18
Operating lease right-of-use assets	4,430	2,502	18
Goodwill	32,348	8,317	19
Deferred charges, noncurrent	32,040	169	13
Equity securities, at cost	- 521	109	20
Equity securities, at fair value	61	301	21
Other noncurrent assets	417	176	21
Total noncurrent assets	49,394		
TOTAL ASSETS	95,874	14,218 52,881	
LIABILITIES			
Current Liabilities			
	16,366	12,000	22
Accounts payable	4,116	13,099 4,115	22
Notes payable	4,110		25 25
Convertible note payable, current	635	5,633 302	25 30
Deferred revenue, current	112	119	30 18
Current portion of obligations under finance lease liabilities			
Current portion of obligations under operating lease liabilities	1,110	601 3	18
Income tax payable	3		0.4
Other current liabilities Total current liabilities	368 22,770	1,105 24,977	24
Noncurrent liabilities			
Bonds, mortgages and other long-term debt	5,024	646	25
Convertible note payable, noncurrent	19,002	3,710	25
Deferred revenue, noncurrent	364	19	30
Finance lease liabilities, noncurrent	-	67	18
Operating lease liabilities, noncurrent	3,344	1,901	18
Indebtedness to related parties, noncurrent	2,427	-	26
Employee benefit plan obligation	6,414	6,768	27
Deferred income tax liability	3,174	-	14
Other deferred tax liabilities	37	38	
Other noncurrent liabilities	-	329	
Total noncurrent liabilities	39,786	13,478	
TOTAL LIABILITIES	62,556	38,455	
IVINE EINDIEITIEV	02,330	30,433	

USD'000	As at June 30, 2021 (unaudited)	As at December 31, 2020	Note ref.
Commitments and contingent liabilities			28
SHAREHOLDERS' EQUITY			
Common stock - Class A	400	400	29
CHF 0.01 par value			
Authorized - 40,021,988 and 40,021,988 shares			
Issued and outstanding - 40,021,988 and 40,021,988 shares			
Common stock - Class B	3,861	2,490	29
CHF 0.05 par value			
Authorized - 138,058,468 and 63,234,625			
Issued - 72,720,054 and 47,622,689			
Outstanding - 60,786,682 and 42,839,554			
Share subscription in progress	402	1	
Treasury stock, at cost (11,933,372 and 4,783,135 shares held)	(644)	(505)	29
Additional paid-in capital	243,437	224,763	
Accumulated other comprehensive income / (loss)	659	6,940	
Accumulated deficit	(222,161)	(217,820)	
Total shareholders'equity attributable to WISeKey shareholders	25,954	16,269	
Noncontrolling interests in consolidated subsidiaries	7,364	(1,843)	
Total shareholders'equity	33,318	14,426	
TOTAL LIABILITIES AND EQUITY	95,874	52,881	

The accompanying notes are an integral part of these consolidated financial statements.

3. Unaudited Consolidated Statements of Changes in Shareholders' Equity

Sime Other State Class		Number of common shares	nmon shares	Common Share Capital	e Capital						Accumulated			
Chase Chas									Share		other	Total	Non	
Times of section (1881) 4.021388 A.021388 A.0213		Č		Č	Č	Total share	Treasury			Accumulated		stockholders'	controlling	
stock seard	USD'000	Class A	Class B	Class A	Class B	capital	Shares	paid-in capital		delicit	Income / (loss)	eduity	Interests	otal equity
stack issued 4 3.373,786 4 173 173 174 174 175 174 175 175 175 175 175 175 175 175 175 175	As at December 31, 2019	40,021,988	28,824,086	400	1,475	1,8/5	(1,288)	212,036	9	(189, 161)	(1,453)	22,015	(1,5/1)	20,444
recrised 4 Carry Services 4 Carry Service 6 Carry Service	Common stock issued ¹	•	3,378,788	•	178	178	•	•	•	•	•	178	•	178
SEDA conquestation 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Options exercised	•	2,414,939	•	123	123	•	•	•	•	•	123	•	123
SEDA	Stock-based compensation	•			٠	•	٠	171	(2)	•		167	•	167
SEDA, vvertible learn 1,180 (726) 1,180 (726) 4,24 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 - 4,24 4,22 4,24 4,24 4,22 4,24 4,22 4,24 4,22	Changes in treasury shares	•	٠	•	٠	•	(159)	•	•	•	•	(129)	•	(129)
vertible beam sep 487 668 1,455 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,456 . 1,441 . . 1,441 . . 1,441 <t< th=""><th>Yorkville SEDA</th><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>1,150</td><td>(726)</td><td>•</td><td>'</td><td>•</td><td>424</td><td>•</td><td>454</td></t<>	Yorkville SEDA	•	•	•	•	•	1,150	(726)	•	'	•	424	•	454
such beam such beam such beam 1357 1,588 1,587 1,588 1,587 1,588 1,587	Crede convertible loan	•	•	•	•	٠	487	899	•	•	•	1,155	•	1,155
treat hoat the hoat breat hoat hoat breat hoat hoat hoat hoat hoat hoat hoat ho	LSI conv ertible loan	•	,	•	•	•	20	1,567	•	i	•	1,587	•	1,587
back program back program progra	Nice & Green loan	•	٠		,	•	13	1,815	•	•	•	1,828	•	1,828
propertient in transity of tran	Share buy back program	•	•	•	٠	٠	(441)	•	•	•	•	(441)	•	(441)
popularizing income / (Jass) 4,0021,988 4,617,813 4,0021,988 4,617,813 4,00 1,776 2,176 (217) 215,531 1 (197,860) (662) 789 (173) s30,2020 40,021,988 47,622,689 40 2,490 2,890 (505) 224,763 1 (173,800) (662) 1,836 (173) stock issued 2,90 2,90 2,890 (505) 224,763 1 (217,820) (694) 16,289 (173) stock issued 2,90 2,90 2,90 2,90 2,410 1 (172) 1 (173) 1 1,429 1,439 1 1,429 1,439 1 1,439 1 1,439 1 1,439 1 1,439 1 1,439 1 1,439 1 1,439 1,439 1,139 1 1,439 1,139 1,139 1 1,141 1,141 1,40 1,141 1,141 1,141 1,141 1,141 1,141 1	Net loss	•	•		•	•	•	•	•	(8,698)	•	(8,698)	(187)	(8,885)
39, 2020 40, 021,803 4,617,813 400 1,776 2,176 (217) 21,5531 1 (197,800) (850) 18,999 (1,773) (1,773) (8,900) 18,999 (1,773) </th <th>Other comprehensive income / (loss)</th> <td>•</td> <td>٠</td> <td>٠</td> <td>٠</td> <td>٠</td> <td>•</td> <td>•</td> <td>٠</td> <td></td> <td>790</td> <td>790</td> <td>(15)</td> <td>775</td>	Other comprehensive income / (loss)	•	٠	٠	٠	٠	•	•	٠		790	790	(15)	775
stock issued 40,021,988 40,02	As at June 30, 2020	40,021,988	34,617,813	400	1,776	2,176	(217)	215,531	1	(197,860)	(663)	18,969	(1,773)	17,196
stock issued 3.99,566 - 20 20 -	As at December 31, 2020	40,021,988	47,622,689	400	2,490	2,890	(202)	224,763	-	(217,820)	6,940	16,269	(1,843)	14,426
vertised 30,497 2 2 2 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 <	Common stock issued	٠	329,566		20	20	•	(142)	(1)	•	٠	(123)	٠	(123)
Fed compensation in the search states by the search states between the search states by the s	Options exercised	•	30,497	•	2	2	•	•	•	•	•	2	•	2
in treasury shares 1 2,986,037 2 EDA 2 ED	Stock-based compensation	•	٠	•	٠	•	•	46	٠	•	•	46	•	46
SEDA .	Changes in treasury shares	•	12,986,037	•	704	704	(701)	•	•	•	•	က	•	က
wertible loan 3,086,368 174 174 56 3,512 - - 3,742 - - 3,742 - - - 3,742 -	Yorkville SEDA	•	•	•	٠	٠	250	160	•	•	•	410	•	410
lify the can be seed at the can	Crede convertible loan	•	3,058,358	•	174	174	29	3,512	•	•	•	3,742	•	3,742
tible loan .	GTO Facility	•	8,662,907		471	471	256	14,581	•	•		15,308	•	15,308
nv etible loan 1 Conversible loan 1 Conversible loan 1 Conversible loan 259 201 2 Conversible loan 2 Con	L1 conv ertible loan	•	•	•	•	•	•	258	201	'	•	459	•	429
Ownership within the Group . </th <th>Anson convertible loan</th> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>259</td> <td>201</td> <td>'</td> <td>•</td> <td>460</td> <td>•</td> <td>460</td>	Anson convertible loan	•	•	•	•	•	•	259	201	'	•	460	•	460
n of Arago Group	Change in Ownership within the Group	•	•	•	٠	•	٠	٠	•	•	•	•	(27)	(27)
prehensive irroome / (loss) (4,341) - (4,341) - (4,341) (1,767) - (6,281) (6,281) (6,281) (8,341) (1,767) (1,767) (6,281) (6,281) (8,281) (8,281) (1,767) (1	Acquisition of Arago Group	•	٠	•	•	•	•	•	•	•	•	•	10,921	10,921
- -	Net loss	•	•	•	•	•	•	•	•	(4,341)	•	(4,341)	(1,767)	(6,108)
40,021,988 72,720,054 400 3,861 4,261 (644) 243,437 402 (222,161) 659 25,954 7,364	Other comprehensive income / (loss)	•	•	•	•	•	•	•	•	•	(6,281)	(6,281)	80	(6,201)
	As at June 30, 2021	40,021,988	72,720,054	400	3,861	4,261	(644)	243,437	402	(222, 161)	629	25,954	7,364	33,318

The accompanying notes are an integral part of these consolidated financial statements.

4. Unaudited Consolidated Statements of Cash Flows

Unaudited 6 months ended June 30,

	Unaudited 6 months en	aea June 30,
USD'000	2021	2020
Cash Flows from operating activities:		
	(6.109)	(8,885)
Net Income (loss)	(6,108)	(0,003)
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation of property, plant & equipment	354	430
Amortization of intangible assets	230	302
Interest and amortization of debt discount	455	239
Loss / (gain) on derivative liability	-	(44)
Loss on debt extinguishment	-	-
Stock-based compensation	46	154
Bad debt expense	15	-
Inventory obsolescence impairment	176	(1)
Income tax expense / (recovery) net of cash paid	(56)	2
Release of provision	-	11
Other non cash expenses /(income)		
Expenses settled in equity	7	-
Gain on disposal of a business	=	-
Unrealized gains related to available-for-sale debt securities recorded in the		
income statement after acquisition of arago	(7,350)	
Unrealized and non cash foreign currency transactions	200	331
Other	240	434
Changes in operating assets and liabilities, net of effects of businesses acquired		
Decrease (increase) in accounts receivables	164	1,088
Decrease (increase) in inventories	3	135
Decrease (increase) in other current assets, net	852	(75)
Decrease (increase) in deferred research & development tax credits, net	756	1,841
Decrease (increase) in other noncurrent assets, net	1,646	69
Increase (decrease) in accounts payable	1,979	30
Increase (decrease) in deferred revenue, current	(575)	(45)
Increase (decrease) in income taxes payable	-	(10)
Increase (decrease) in other current liabilities	(2,553)	(287)
Increase (decrease) in deferred revenue, noncurrent	346	24
Increase (decrease) in defined benefit pension liability	(355)	122
Increase (decrease) in other noncurrent liabilities	(329)	6
Net cash provided by (used in) operating activities	(9,857)	(4,129)
Cash Flows from investing activities:		
Sale / (acquisition) of equity securities	_	_
Sale / (acquisition) of property, plant and equipment	(36)	(22)
Sale of a business, net of cash and cash equivalents divested	(00)	(22)
Acquisition of a business, net of cash and cash equivalents acquired	(2,013)	-
Net cash provided by (used in) investing activities	(2,049)	(22)
Cash Flows from financing activities:		
Proceeds from options exercises	2	103
Proceeds from issuance of Common Stock	239	1,516
Proceeds from convertible loan issuance	33,141	3,631
Proceeds from debt	-	572
Repayments of debt	(2,736)	(803)
Payments of debt issue costs	(1,646)	(555)
Repurchase of treasury shares	-	(600)
Net cash provided by (used in) financing activities	29,000	4,419
Effect of exchange rate changes on cash and cash equivalents	(217\	495
Lifect of exchange rate changes on cash and cash equivalents	(217)	490

Unaudited 6 months ended June 30,

USD'000	2021	2020
Cash and cash equivalents and restricted cash		
Net increase (decrease) during the period	16,877	763
Balance, beginning of period	21,763	16,646
Balance, end of period	38,640	17,409
Reconciliation to balance sheet		
Cash and cash equivalents	38,532	15,408
Restricted cash, current	108	2,001
Restricted cash, noncurrent	-	-
Balance, end of period	38,640	17,409
Supplemental cash flow information		
Cash paid for interest, net of amounts capitalized	309	220
Cash paid for incomes taxes	-	=
Noncash conversion of convertible loans into common stock	20,337	1,229
Restricted cash received for share subscription in progress	402	2
Purchase of equity securities	-	-
ROU assets obtained from operating lease	2,395	43

The accompanying notes are an integral part of these consolidated financial statements.

5. Notes to the Unaudited Consolidated Financial Statements

Note 1. The WISeKey Group

WISeKey International Holding AG, together with its consolidated subsidiaries ("WISeKey" or the "Group" or the "WISeKey Group"), has its headquarters in Switzerland. WISeKey International Holding AG, the ultimate parent of the WISeKey Group, was incorporated in December 2015 and is listed on the Swiss Stock Exchange, SIX SAG with the valor symbol "WIHN" since March 2016 and on the NASDAQ Capital Market exchange with the valor symbol "WKEY" since December 2019.

The Group develops, markets, hosts and supports a range of solutions that enable the secure digital identification of people, content and objects, by generating digital identities that enable its clients to monetize their existing user bases and at the same time, expand its own ecosystem. WISeKey generates digital identities from its current products and services in Cybersecurity Services, IoT (internet of Things), Digital Brand Management and Mobile Security. In 2021, the Group entered the field of Artificial Intelligence ("Al") with the acquisition of arago GmbH.

The Group leads a carefully planned vertical integration strategy through acquisitions of companies in the industry. The strategic objective is to provide integrated services to its customers and also achieve cross-selling and synergies across WISeKey. Through this vertical integration strategy, WISeKey anticipates being able to generate profits in the near future.

Note 2. Future operations and going concern

The Group experienced a loss from operations in this reporting period. Although the WISeKey Group does anticipate being able to generate profits in the near future, this cannot be predicted with any certainty. The accompanying consolidated financial statements have been prepared assuming that the Group will continue as a going concern.

The Group incurred a net operating loss of USD 11.2 million and had positive working capital of USD 23.7 million as at June 30, 2021, calculated as the difference between current assets and current liabilities. Based on the Group's cash projections for the next 12 months to September 30, 2022, its cash and cash equivalents balance of USD 38.5 million as at June 30, 2021, will be sufficient to fund operations and financial commitments.

Based on the foregoing, Management believe it is correct to present these figures on a going concern basis.

Note 3. Basis of presentation

The consolidated financial statements are prepared in accordance with the Generally Accepted Accounting Principles in the United States of America ("**US GAAP**") as set forth in the Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC). All amounts are in United States dollars ("**USD**") unless otherwise stated.

Acquisition of arago

On February 1, 2021, the Company acquired arago GmbH, a private German company, and its affiliates (together, "arago" or the "arago Group"). arago is a leader in artificial intelligence automation. arago aims to provide the benefits of artificial intelligence to enterprise customers globally through knowledge automation. arago uses modern technologies such as inference and machine learning in order to automatically operate the entire IT stack – from heterogeneous environments to individual applications.

The assets, liabilities and results of arago have been consolidated in the Group's financial statements from the acquisition date of February 1, 2021.

Note 4. Summary of significant accounting policies

General Principles of Business Combinations

The Company uses the acquisition method to account for business combination, in line with ASC Topic 805-10 Business Combinations. Subsidiaries acquired or divested in the course of the year are included in the consolidated financial statements respectively as of the date of purchase, and up to the date of sale. The consideration for the acquisition is measured as the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Company.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interests over the net identifiable assets acquired and liabilities assumed.

Intangible Assets

Those intangible assets that are considered to have a finite useful life are amortized over their useful lives, which generally range from 1 to 14 years. Each period we evaluate the estimated remaining useful lives of intangible assets and whether events or changes in circumstances require a revision to the remaining periods of amortization or that an impairment review be carried out.

Intangible assets with indefinite lives are not amortized but are subject to annual reviews for impairment.

Segment Reporting

Following the acquisition of arago, our chief operating decision maker, who is also our Chief Executive Officer, requested changes in the information that he regularly reviews for purposes of allocating resources and assessing budgets and performance. As a result, beginning in fiscal year 2021, we report our financial performance based on a new segment structure described in Note 344. There was no restatement of prior periods due to changes in reported segments.

Recent Accounting Pronouncements

Adoption of new FASB Accounting Standard in the current year - Prior-Year Financial Statements not restated:

As of January 1, 2021, the Group adopted ASU 2018-14, Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): *Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans, which* modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans.

ASU 2018-14 deletes the following disclosure requirements:

The amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year; the amount and timing of plan assets expected to be returned to the employer; related party disclosures about the amount of future annual benefits covered by insurance and annuity contracts and significant transactions between the employer or related parties and the plan. The effects of a one-percentage-point change in assumed health care cost trend rates on the (a) aggregate of the service and interest cost components of net periodic benefit costs and (b) benefit obligation for postretirement health care benefits.

ASU 2018-14 adds/clarifies disclosure requirements related to the following:

The weighted-average interest crediting rates for cash balance plans and other plans with promised interest crediting rates; An explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period; The projected benefit obligation (PBO) and fair value of plan assets for plans with PBOs in excess of plan assets; The accumulated benefit obligation (ABO) and fair value of plan assets for plans with ABOs in excess of plan assets. There was no material impact on the Group's results upon adoption of the standard.

As of January 1, 2021, The Group also adopted ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes (the ASU), as part as part of its overall simplification initiative to reduce costs and complexity of applying accounting standards while maintaining or improving the usefulness of the information provided to users of financial statements, which amendments primarily impact ASC 740, Income Taxes, and may impact both interim and annual reporting periods.

It eliminates the need for an organization to analyze whether the following apply in a given period:

Exception to the incremental approach for intraperiod tax allocation; Exceptions to accounting for basis differences when there
are ownership changes in foreign investments; Exception in interim period income tax accounting for year-to-date losses that
exceed anticipated losses.

The ASU also improves financial statement preparers' application of income tax-related guidance and simplifies GAAP for:

Franchise taxes that are partially based on income; Transactions with a government that result in a step up in the tax basis of
goodwill; Separate financial statements of legal entities that are not subject to tax; Enacted changes in tax laws in interim
periods.

There was no material impact on the Group's results upon adoption of the standard.

As of January 1, 2021, the Group also adopted ASU 2020-01, Investments- Equity securities (Topic 321), Investments – equity method and joint ventures (Topic 323), and derivatives and hedging (topic 815), which provides additional guidance as a result of the adoption of ASU 2016-01, which added Topic 321, Investments – Equity Securities and provided an entity with the option to measure certain equity securities without a readily determinable fair value at cost, minus impairment. ASU 2020-01 amended the current guidance. In particular, the FASB clarified that entities seeking to apply the measurement alternative found in Topic 321 should first consider whether there are observable transactions that would require the reporting entity to either apply or discontinue the equity method of accounting in accordance with Topic 323. With respect to certain forward contracts and purchase options, the FASB explained an entity should not consider whether the underlying securities would be accounted for under Topic 323, or the fair value option found in Topic 825 upon the settlement of the contract or purchase option. Entities should instead consider the characteristics of these contracts and options based on the guidance found in 815-10-15-141 to determine the appropriate accounting treatment.

There was no material impact on the Group's results upon adoption of the standard.

As of January 1, 2021, the Group also adopted ASU 2020-10, Codification improvements, which further clarify and improve the Codification by codifying all guidance that requires or provides the option for an entity to disclose information within the footnotes. This clarification is meant to reduce the likelihood of a preparer missing required disclosure requirements. While the amendments do not introduce new topics or subtopics or change existing GAAP, all entities should review the changes found in the ASU to assess the impact it may have on their financial reporting requirements.

There was no material impact on the Group's results upon adoption of the standard.

New FASB Accounting Standard to be adopted in the future:

In August 2020, the FASB issued Accounting Standards Update (ASU) no 2020-06, 'Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging— Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity.

Summary: ASU 2020-06 simplifies accounting for convertible instruments by removing major separation models required under current U.S. GAAP. Consequently, more convertible debt instruments will be reported as a single liability instrument and more convertible preferred stock as a single equity instrument with no separate accounting for embedded conversion features. The ASU removes certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception, which will permit more equity contracts to qualify for it. The ASU also simplifies the diluted earnings per share (EPS) calculation in certain areas.

Effective Date: ASU No. 2020-06 is effective for public business entities that meet the definition of a Securities and Exchange Commission (SEC) filer, excluding entities eligible to be smaller reporting companies as defined by the SEC, for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. For all other entities, the standard will be effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. Early adoption will be permitted.

The Company expects to adopt all the aforementioned guidance when effective. Management is assessing the impact of the aforementioned guidance on its consolidated financial statements but does not expect it to have a material impact.

In May 2021, The FASB has issued Accounting Standards Update (ASU) No. 2021-04, Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options — a consensus of the FASB Emerging Issues Task Force. The ASU provides a principles-based framework to determine whether an issuer should recognize the modification or exchange as an adjustment to equity or an expense. This Update is to clarify and reduce diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (for example, warrants) that remain equity classified after modification or exchange. The amendments in this Update affect all entities that issue freestanding written call options that are classified in equity.

Effective Date: ASU No. 2021-04 is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. An entity should apply the amendments prospectively to modifications or exchanges occurring on or after the effective date of the amendments. Early adoption is permitted.

The Company expects to adopt all the aforementioned guidance when effective. Management is assessing the impact of the aforementioned guidance on its consolidated financial statements but does not expect it to have a material impact.

Note 5. Concentration of credit risks

Financial instruments that are potentially subject to credit risk consist primarily of cash and cash equivalents and trade accounts receivable. Our cash is held with large financial institutions. Management believes that the financial institutions that hold our investments are financially sound and accordingly, are subject to minimal credit risk. Deposits held with banks may exceed the amount of insurance provided on such deposits. The Group sells to large, international customers and, as a result, may maintain individually significant trade accounts receivable balances with such customers during the year. We generally do not require collateral on trade accounts receivable.

Summarized below are the clients whose revenue or trade accounts receivable balances were 10% or higher than the respective total consolidated net sales and trade accounts receivable balance for the 6 months to June 30, 2021 and 2020, and as at June 30, 2021 and December 31, 2020, respectively:

	Revenue co	ncentration	Receivables	concentration
	(% of total net sales)		(% of total acc	ounts receivable)
	6 months ended	6 months ended	As at June 30,	As at December 31,
	June 30, 2021	June 30, 2020	2021 (unaudited)	2020
	(unaudited)	(unaudited)	, ,	
IoT operating segment				
Multinational electronics contract manufacturing company	11%	17%	18%	14%
International packaging solutions, technology and chips	2%	13%	2%	2%
International equipment and software manufacturer	-	4%	-	-
International telecommunication company	7%	-	11%	-

Note 6. Fair value measurements

ASC 820 establishes a three-tier fair value hierarchy for measuring financial instruments, which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1, defined as observable inputs such as quoted prices in active markets;
- Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and
- Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

	As at June 3	30, 2021	As at December	er 31, 2020		
	Carrying		Carrying		Fair value	
USD'000	amount	Fair value	amount	Fair value	level	Note ref.
Nonrecurring fair value measurements						
Accounts receivable	3,304	3,304	2,900	2,900	3	8
Notes receivable from employees and related parties	124	124	37	37	3	9
Notes receivable, noncurrent	165	165	183	183	3	13
Equity securities, at cost	521	521	-	-	3	20
Accounts payable	16,366	16,366	13,099	13,099	3	22
Notes payable	4,116	4,116	4,115	4,115	3	23
Bonds, mortgages and other long-term debt	5,024	5,024	646	4,115	3	25
Convertible note payable, current	60	60	5,633	5,633	3	25
Convertible note payable, noncurrent	19,002	19,002	3,710	3,710	3	25
Indebtedness to related parties, noncurrent	2,427	2,427	-	-	3	26
Recurring fair value measurements						
Available-for-sale debt security	-	-	9,190	9,190	1	10
Equity securities, at fair value	61	61	301	301	1	21

In addition to the methods and assumptions we use to record the fair value of financial instruments as discussed in the Fair Value Measurements section above, we used the following methods and assumptions to estimate the fair value of our financial instruments:

- Accounts receivable carrying amount approximated fair value due to their short-term nature.
- Notes receivable from related parties carrying amount approximated fair value due to their short-term nature.
- Notes receivable, noncurrent- carrying amount approximated fair value because time-value considerations are immaterial to the
 accounts.
- Equity securities, at cost no readily determinable fair value, measured at cost minus impairment.
- Accounts payable carrying amount approximated fair value due to their short-term nature.
- Notes payable carrying amount approximated fair value due to their short-term nature.
- Bonds, mortgages and other long-term debt carrying amount approximated fair value.
- Convertible note payable current and noncurrent- carrying amount approximated fair value.
- Available-for-sale debt security fair value remeasured as at reporting period.
- Equity securities, at fair value fair value remeasured as at reporting period.
- Derivative liabilities, current fair value remeasured as at reporting period.

Derivative liabilities

In 2021, the Group held one derivative instrument which was measured at estimated fair value on a recurring basis and linked to the conversion option originally embedded in the convertible loan signed with YA II PN, Ltd., a fund managed by Yorkville Advisors Global, LLC ("Yorkville") on June 27, 2019 (the "First Yorkville Convertible Loan") and modified on March 04, 2020 when WISeKey entered into a new convertible loan agreement with Yorkville (the "Second Yorkville Convertible Loan") (see Note 25).

The Second Yorkville Convertible Loan had a maturity date of April 30, 2021. It contains a conversion option into WIHN Class B shares at the election of the Yorkville covering any amount outstanding (principal and/or interests) that may be settled. The exercise price is set at CHF 3.00 with antidilution provision adjustments as further described in Note 25.

In line with ASU 2014-16, both the First Yorkville Convertible Loan and the Second Yorkville Convertible Loan were assessed as a hybrid instrument, being a debt instrument with an equity-linked component (the conversion option). Per ASC 815-10, the embedded conversion option met the definition of a derivative and was accounted for separately.

The hosting debt instruments were recorded using the residual method.

The derivative component (the conversion option) was fair valued using a binomial lattice model, building in quoted market prices of WIHN class B shares on the SIX Swiss Stock Exchange, and inputs such as time value of money, volatility, and risk-free interest rate. It was valued at inception of the First Yorkville Convertible Loan on June 27, 2019 at USD 257,435 and revalued at fair value at each reporting date in line with ASC 815-15-30-1. At inception of the Second Yorkville Convertible Loan on March 04, 2020, following the modification accounting detailed in Note 25, the derivative liability was fair valued at USD nil.

In 2020, WISeKey made several repayments in cash of the First Yorkville Convertible Loan and the Second Yorkville Convertible Loan, which did not result in any gain or loss on derivative because the derivative was fair valued at USD nil at all repayment and reporting dates.

In the six months to June 30, 2021, WISeKey made four repayments in cash of the Second Yorkville Convertible Loan as per below. These repayments did not result in any gain or loss on derivative because the derivative was fair valued at USD nil at all repayment and reporting dates.

- On January 4, 2021, WISeKey repaid USD 250,000 of the principal.
- On January 29, 2021, WISeKey repaid USD 250,000 of the principal.
- On February 28, 2021, WISeKey repaid USD 250,000 of the principal.
- On April 15, 2021, WISeKey repaid USD 373,438 of the principal.
- On June 30, 2021, WISeKey repaid the remaining principal balance of USD 569,541 in full.

As a result, the loan was fully repaid as at June 30, 2021.

The derivative component was measured at fair value at June 30, 2021at USD nil.

In the six months to June 30, 2021, WISeKey recorded in the income statement, a net gain on derivative of USD nil and a net debt discount amortization expense of USD 82,560.

Derivative liabilities	USD'000
Balance as at December 31, 2019	44
Fair value of the derivative instrument (conversion option)	-
Gain on derivative recognized as a separate line in the statement of loss	(44)
Balance as at June 30, 2020	-
Fair value of the derivative instrument (conversion option)	-
Gain on derivative recognized as a separate line in the statement of loss	-
Balance as at December 31, 2020	-
Fair value of the derivative instrument (conversion option)	-
Gain on derivative recognized as a separate line in the statement of loss	-
Balance as at June 30, 2021	-

Note 7. Cash and cash equivalents

Cash consists of deposits held at major banks.

On January 16, 2021, as per the terms of the SPA relating to the sale of WISeKey (Bermuda) Holding Ltd and its affiliates to Digicert Inc., USD 2.0 million of the consideration retained on an escrow account was released to WISeKey, thereby transferring from restricted cash current into cash and cash equivalents. The funds were received on January 29, 2021, together with USD 46,557 interest earned on the restricted cash account until its release.

Note 8. Accounts receivable

The breakdown of the accounts receivable balance is detailed below:

USD'000	As at June 30, 2021 (unaudited)	As at December 31, 2020
	1	
Trade accounts receivable	3,187	2,608
Allowance for doubtful accounts	(32)	(42)
Accounts receivable from shareholders	-	14
Accounts receivable from other related parties	105	95
Accounts receivable from underwriters, promoters, and employees	1	1
Other accounts receivable	43	224
Total accounts receivable net of allowance for doubtful accounts	3,304	2,900

As at June 30, 2021, accounts receivable from other related parties consisted of a receivable from OISTE in relation to the facilities and personnel hosted by WISeKey SA on behalf of OISTE. (see Note 37).

Note 9. Notes receivable from employees

As at June 30, 2021, the notes receivable from employees and related parties consisted of:

- a loan to an employee for CHF 47,063 (USD 50,868). The loan bears an interest rate of 0.5% per annum. The loan and accrued interest are to be repaid in full on or before December 31, 2021. In exchange for the loan, the employee has pledged the 60,000 ESOP options that he holds on WIHN class B shares (see Note 31).
- An advance of CHF 67,672 (USD 73,144) to Carlos Moreira, Chairman of the Board and CEO of WISeKey, and a shareholder, in relation to the outstanding employee social charges and tax deducted at source for the exercise of his ESOP options (see Note 31). This advance is expected to be settled by December 31, 2021.

Note 10. Available-for-sale debt security

Convertible Loan with arago

On August 11, 2020, WISeKey entered into a convertible loan agreement with arago (the "arago First Convertible Loan"), a private German company leader in artificial intelligence automation, to acquire 5% of arago's fully diluted share capital against an investment of CHF 5 million to be paid in five monthly installments of CHF 1 million starting August 12, 2020. The arago First Convertible Loan bore an interest of 5% per annum, did not contain any lender's fees, and had no maturity date. WISeKey or arago could request conversion of the arago Second Convertible Loan into arago shares representing 5% of arago's fully diluted share capital provided that either the full CHF 5 million was paid by WISeKey or that WISeKey had terminated the agreement. On August 12, 2020, WISeKey made an initial payment of CHF 1 million. On September 10, 2020, WISeKey terminated the arago First Convertible Loan and signed a new convertible loan agreement with arago on September 18, 2020 (the "arago Second Convertible Loan").

Per arago Second Convertible Loan, WISeKey intends to acquire 5% of arago's fully diluted share capital against an investment of CHF 5 million made up of the CHF 1 million paid on August 12, 2020, and four monthly installments of CHF 1 million starting September 18, 2020. The arago Second Convertible Loan bore an interest of 5% per annum, did not contain any lender's fees, and had no maturity date. WISeKey or arago could request conversion of the arago Second Convertible Loan into arago shares representing 5% of arago's fully diluted share capital once the full CHF 5 million was paid by WISeKey, or, should WISeKey terminate the agreement, the conversion shall take place within the next financing round of arago. On September 21, 2020, WISeKey made a payment of CHF 1 million. On October 09, 2020, WISeKey terminated the arago Second Convertible Loan and signed a new convertible loan agreement with arago on November 18, 2020 (the "arago Third Convertible Loan").

Per arago Third Convertible Loan, WISeKey intends to acquire 51% of arago's fully diluted share capital against (i) an investment of CHF 5 million made up of the CHF 1 million paid on August 12, 2020, the CHF 1 million paid on September 21, 2020, and three monthly installments of CHF 1 million starting November 20, 2020 subject to adjustment in accordance with arago's working capital needs, and (ii) a guarantee on arago's existing indebtedness. The arago Third Convertible Loan bore an interest of 5% per annum, did not contain any lender's fees, and had no maturity date. WISeKey could request conversion of the arago Third Convertible Loan into arago shares representing 51% of arago's fully diluted share capital at any time provided that the full CHF 5 million was paid by WISeKey and that WISeKey paid the nominal value of the newly issued shares in cash. In case WISeKey had not exercised its conversion right by December 31, 2020, arago could request the conversion at any time.

To determine the appropriate accounting treatment for our convertible debt investment, we performed a variable interest entity ("VIE") analysis and concluded that arago does not meet the definition of a VIE. After we reviewed all of the terms of the investment, we concluded the appropriate accounting treatment to be that of an available-for-sale debt security.

The investment was carried at fair value with unrealized holding gains and losses excluded from earnings and reported in other comprehensive income. We estimated the fair value of our investment at each reporting date by utilizing an option pricing model, as well as a present value of expected cash flows from the debt security utilizing the risk-free rate and the estimated credit spread as of the valuation date as the discount rate. The valuation analysis utilized certain key assumptions such as the estimated credit spread, the expected life of the option, and the valuation of arago all of which were significant unobservable inputs and thus represented a Level 3 measurement within the fair value hierarchy. The use of alternative estimates and assumptions could increase or decrease the estimated fair value of the investment, which would result in different impacts to our consolidated balance sheet and comprehensive income. Actual results may differ from our estimates. The fair value of the convertible debt investment was recorded in debt securities, at fair value on our consolidated balance sheets.

On January 18, 2021, WIHN exercised its right to convert the loan into 51% of arago's share capital and 51% of the voting rights associated with arago's share capital, calculated on a fully diluted basis, taking into consideration the impact of any unexercised share options or other capital instruments convertible into or exchangeable or exercisable for arago shares.

The acquisition date was February 1, 2021 (see Note 14 for details). As at February 1, 2021, WIHN had funded CHF 3.4 million out of the CHF 5 million convertible loan:

- CHF 1,000,000 on August 12, 2020;
- CHF 1,000,000 on September 21, 2020;
- CHF 600,000 on November 20, 2020;
- CHF 400,000 on December 01, 2020;
- CHF 400,000 on December 22, 2020 out of which arago returned EUR 300,000 (CHF 324,708 at historical rate) unrequired funds on December 30, 2020; and
- EUR 300,000 on January 04, 2021;

The fair value of the arago Third Convertible Loan was measured as at February 1, 2021 as USD 11,166,432 for the business combination accounting. The loan fair value was included in the consideration paid for the acquisition and, in line with ASC 320-10-40-2, the total amount of CHF 6,546,964 (USD 7,349,602 at historical rate) recorded in other comprehensive income, representing the unrealized gain up to the date of acquisition, was reversed into other operating income. See Note 14 for details on the Business Combination accounting and Note 30 on Other operating income.

The following table sets forth the changes in the balance of the convertible debt investment for the year ended December 31, 2020 and the six months ended June 30, 2021.

Available-for-sale debt security	USD'000
Balance as at December 31, 2019	-
Available-for sale debt security acquired in the year	3,805
Change in unrealized gains related to available-for-sale debt securities recorded in other comprehensive	
income	5,385
Balance as at December 31, 2020	9,190
Change in unrealized gains related to available-for-sale debt securities recorded in other comprehensive	
income	1,976
Conversion of available-for-sale debt security in the period	(11,166)
Balance as at June 30, 2021	-

Note 11. Inventories

Inventories consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Raw materials	496	543
Work in progress	1,975	1,931
Total inventories	2,471	2,474

Note 12. Other current assets

Other current assets consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Value-Added Tax Receivable	393	762
Advanced payment to suppliers	187	43
Deposits, current	99	5
Other currrent assets	-	4
Total other current assets	679	814

Note 13. Notes receivable, noncurrent

Notes receivable, noncurrent consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Long-term receivable from, and loan, to shareholders	138	144
Long-term receivable from, and loan to, other related parties	27	39
Total notes receivable, noncurrent	165	183

As at June 30, 2021, the noncurrent notes receivable were made up of:

- several loans to employees who are shareholders in relation to the outstanding employee social charges and tax deducted at source for the exercise of their ESOP options (see Note 31). These loans do not bear interest. The total loan amount as at June 30, 2021 was CHF 127,521 (USD 137,832).
- several loans to employees in relation to the outstanding employee social charges for the exercise of their ESOP options (see Note 31). These loans do not bear interest. The total loan amount as at June 30, 2021 was CHF 24,717 (USD 26,715).

Note 14. Business Combinations

Acquisition of arago GmbH

On February 1, 2021 the Company acquired 51% of the fully diluted share capital of arago GmbH, a private German company, and its affiliates (together, "arago" or the "arago Group"). arago is a leader in artificial intelligence automation. arago aims to provide the benefits of artificial intelligence to enterprise customers globally through knowledge automation. arago uses modern technologies such as inference and machine learning in order to automatically operate the entire IT stack – from heterogeneous environments to individual applications.

The assets, liabilities and results of arago have been consolidated in the Company's financial statements from the acquisition date of February 1, 2021.

The major classes of assets and liabilities acquired by WISeKey at historical cost are as follows:

Consolidated Balance Sheet - arago group	Opening balance As at February 1,
USD'000	2021
ASSETS	
Current assets	
Cash and cash equivalents	243
Restricted cash, current	70
Accounts receivable, net of allowance for doubtful accounts	568
Convertible note receivable from WISeKey	1,808
Prepaid expenses	464
Other current assets	117
Total current assets	3,270
Noncurrent assets	
Property, plant and equipment net of accumulated depreciation	37
Intangible assets, net of accumulated amortization	10,108
Operating lease right-of-use assets	78
Equity securities, at cost	55
Goodwill	-
Deferred tax assets	8
Total noncurrent assets	10,286
TOTAL ASSETS	13,556
LIABILITIES	
Current Liabilities	
Accounts payable	1,288
Notes payable	3,712
Convertible loan with WISeKey	-
Deferred revenue	909
Current portion of obligations under operating lease liabilities	53
Other current liabilities	1,816
Total current liabilities	7,778
Noncurrent liabilities	
Bonds, mortgages and other long-term debt	4,296
Operating lease liabilities, noncurrent	25
Deferred tax liabilities	3,235
Total noncurrent liabilities	7,556
TOTAL LIABILITIES	15,334
TOTAL NET ASSETS	(1,778)

The consideration of USD 22,253,087 for the acquisition of arago was made up of the following components:

- The arago Third Convertible Loan fair valued at USD 11,166,432 converted at the date of acquisition (see Note 9 for detail).
- A cash payment of USD 165,160 corresponding to the nominal value at the date of acquisition of the 136,072 arago shares, par value EUR 1.00, acquired.
- A noncontrolling interest corresponding to the 49% of arago's share capital, fair valued at USD 10,921,495 based on the fair value calculation of a 51% interest in arago performed to remeasure the arago Third Convertible Loan at the date of acquisition of February 1, 2021. The minority shareholders could put their non-controlling interest to the Group within five years (the "Put Option"). As the Put Option is only settleable in WISeKey Class B Shares it was determined not to be a redeemable non-controlling interest and was recorded in permanent equity and presented as noncontrolling interests in consolidated subsidiaries on the consolidated balance sheet.

We note that the actual cash paid as part of the consideration amounted to CHF 5 million (USD 5,612,985 at the closing rate on the date of acquisition) and USD 165,160 for the nominal value of the arago shares acquired, hence a total cash disbursement of USD 5,778,145.

Goodwill calculation	USD'000	USD'000
Consideration		
Fair value of the convertible loan	11,166	
Payment of nominal value of arago shares	165	
NCI put option	10,922	
Total consideration		22,253
Net assets acquired		
Total net assets of arago group at acquisition	(1,778)	
Total net assets acquired		(1,778)
Goodwill at acquisition		24,031

The goodwill arising from the acquisition of arago is USD 24,031,436. See Note 19.

The table below shows the reconciliation of the total consideration for the acquisition of arago to the cash flows from the acquisition of a business, net of cash and cash equivalents acquired disclosed in the Cash Flows from investing activities of the unaudited Consolidated Statements of Cash Flows.

Reconciliation of the total consideration to the unaudited cash flow statement	USD'000	USD'000
Total consideration		(22,253)
Deduction of non-cash elements of the total consideration		
Fair value of the conversion option	5,589	
Fair value of the NCI put option	10,922	
Total non-cash elements of the total consideration		16,511
Deduction of cash paid in the year 2020		3,043
Deduction of cash and cash equivalents acquired		373
Cash Flows from the acquisition of a business, net of cash and cash equivalents acq	uired	(2,326)

For the period started on the date of acquisition of February 1, 2021 until the end of the reporting period on June 30, 2021, the revenue of arago recorded in the consolidated income statement was USD 2.1 million, and arago's net loss was USD 3.3 million.

The Group has concluded that disclosure of comparative financial statements required by ASC 805-10-50-h is impracticable. In line with ASC 250-10-45-9, retrospective application for the comparative financial statements requires significant estimates of amounts, and it is impossible to distinguish objectively information about those estimates that provides evidence of circumstances that existed on the date(s) at which those amounts would be recognized, measured, or disclosed under retrospective application. It is also impossible for management to distinguish objectively information that would have been available when the financial statements for that prior period were issued. We further note that there are no audited financial statements for the arago Group for that period.

Note 15. Deferred tax credits

Deferred tax credits consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Deferred research & development tax credits	555	1,311
Deferred other tax credits	2	1
Total deferred tax credits	557	1,312

WISeKey Semiconductors is eligible for Research tax credits provided by the French government (see Note 4 Summary of significant accounting policies). As of June 30, 2021, and December 31, 2020, the receivable balances in respect of these Research tax credits was respectively USD 555,018 and USD 1,310,685. The credit is deductible from the entity's income tax charge for the year or payable in cash the following year, whichever event occurs first.

Note 16. Property, plant and equipment

Property, plant and equipment, net consisted of the following.

	As at June 30,	As at December 31,	
USD'000	2021 (unaudited)	2020	
Machinery & equipment	3,989	3,925	
Office equipment and furniture	3,152	2,900	
Computer equipment and licences	2,225	1,171	
Total property, plant and equipment gross	9,366	7,996	
Accumulated depreciation for:			
Machinery & equipment	(3,564)	(3,290)	
Office equipment and furniture	(2,871)	(2,573)	
Computer equipment and licences	(2,180)	(1,133)	
Total accumulated depreciation	(8,615)	(6,996)	
Total property, plant and equipment, net	751	1,000	
Depreciation charge for the six months to June 30,	354	430	

Note 17. Intangible assets

Intangible assets and future amortization expenses consisted of the following:

USD'000	As at June 30, 2021 (unaudited)	As at December 31, 2020
Intangible assets not subject to amortization:	ZOZI (unadanca)	2020
Trademarks	2,336	-
Intangible assets subject to amortization:		
Trademarks	136	142
Patents	2,281	2,281
License agreements	11,187	11,626
Other intangibles	14,221	6,641
Total intangible assets gross	30,161	20,690
Accumulated amortization for:		
Trademarks	(136)	(142)
Patents	(2,281)	(2,281)
License agreements	(11,180)	(11,617)
Other intangibles	(6,640)	(6,641)
Total accumulated amortization	(20,237)	(20,681)
Total intangible assets subject to amortization, net	7,588	9
Total intangible assets, net	9,924	9
Amortization charge for the six months to June 30,	230	302

Trademarks not subject to amortization are made up of a balance of USD 2,336,000 for the trademark acquired with arago on February 1, 2021. The trademark was valued using the relief-from-royalty approach at acquisition and determined to have an indefinite useful life.

Other intangibles include a balance of USD 7,772,000 for the technology acquired with arago on February 1, 2021. The technology was valued using the relief-from-royalty approach at acquisition. The balance is amortized over the estimated remaining useful life of 17 years. An amortization charge of USD 190,800 was recorded for the six months ended June 30, 2021, hence a carrying amount of USD 7,592,200.

Future amortization charges are detailed below:

Year		USD'000
	2021	231
	2022	461
	2023	458
	2024	457
	2025	457
	2026 and beyond	5,524
Total intangible assets subject to amortization, net		7,588

Note 18. Leases

WISeKey has historically entered into a number of lease arrangements under which it is the lessee. As at June 30, 2021, WISeKey holds one finance lease for IT equipment in our datacenter, 17 operating leases, and 3 short-term leases. One of its short-term leases and six of its operating leases are for vehicles, whilst all other short-term and operating leases relate to premises. We do not sublease. All of our operating leases include multiple optional renewal periods which are not reasonably certain to be exercised. The finance lease contains an option to purchase the assets at the end of the lease which we have assumed will be exercised and so has been included in the calculation of the right of use asset and lease liability.

We have elected the short-term lease practical expedient related to leases of various premises and equipment. We have elected the practical expedients related to lease classification of leases that commenced before the effective date of ASC 842.

During the six months ended June 30, 2021 and 2020, we recognized rent expenses associated with our leases as follows:

Unaudited 6 months ended June 30

USD'000	2021	2020
Finance lease cost:		
Amortization of right-of-use assets	34	32
Interest on lease liabilities	5	6
Operating lease cost:		
Fixed rent expense	500	293
Short-term lease cost	5	18
Net lease cost	544	349
Lease cost - Cost of sales	-	-
Lease cost - General & administrative expenses	544	349
Net lease cost	544	349

During the six months ended June 30, 2021, we had the following cash and non-cash activities associated with our leases:

As at.	luna	30

USD'000	2021
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from finance leases	57
Operating cash flows from operating leases	563
Financing cash flows from finance leases	4
Non-cash investing and financing activities :	
Net lease cost	544
Additions to ROU assets obtained from:	
New finance lease liabilities	-
New operating lease liabilities	2,395

^{*}In line with the new standard ASC 842 "Leases" and its transition guidance, we considered all leases as new leases in 2019.

As at June 30, 2021, future minimum annual lease payments were as follows:

	USD'000	USD'000	USD'000	USD'000
Year	Operating	Short-term	Finance	Total
2021	649	3	60	712
2022	1,122	1	60	1,183
2023	997	-		997
2024	668	-	-	668
2025 and beyond	1,645	-	-	1,645
Total future minimum operating and short-term lease payments	5,081	4	120	5,205
Less effects of discounting	(627)		(8)	(635)
Less effects of practical expedient		(4)	=	(4)
Lease liabilities recognized	4,454	•	112	4,566

In line with ASU 2018-11, future minimum lease payments under legacy ASC 840 are disclosed in the table below:

Year	USD'000
2021	712
2022	1,183
2023	997
2024	668
2025 and beyond	1,645
Total future minimum operating and short-term lease payments	5,205
Less effects of discounting	(639)
Lease liabilities recognized	4,566

As of June 30, 2021, the weighted-average remaining lease term was 1.0 years for our finance lease and 4.46 years for operating leases.

For our finance lease, the implicit rate was calculated as 5.17%. For our operating leases and because we generally do not have access to the implicit rate in the lease, we calculated an estimate rate based upon the estimated incremental borrowing rate of the entity holding the lease. The weighted average discount rate associated with operating leases as of June 30, 2021 was 3.28%.

Note 19. Goodwill

Goodwill of USD 24,031,436 arose as a result of the acquisition by the group of arago. See Note 14 Business combinations.

We test goodwill for impairment annually on October 1st, or as and when indicators of impairment arise. After October 1, 2020, there were no impairment indicators identified triggering an impairment test. Therefore, no impairment loss was recorded in the six months to June 30, 2021.

USD'000	IoT Segment	Al Segment	Total
Goodwill balance as at December 31, 2019	8,317	-	8,317
Goodwill acquired during the year	-	-	-
Impairment losses	-	-	-
As a December 31, 2020			
Goodwill	8,317	-	8,317
Accumulated impairment losses	-	-	-
Goodwill balance as at December 31, 2020	8,317	-	8,317
Goodwill acquired during the year	-	24,031	24,031
Impairment losses	-	-	-
As a June 30, 2021			
Goodwill	8,317	24,031	32,348
Accumulated impairment losses	<u>-</u>	<u>-</u>	
Goodwill balance as at June 30, 2021	8,317	24,031	32,348

Note 20. Equity securities, at cost

Warrant agreement in Tarmin

On September 27, 2018 WISeKey purchased a warrant agreement in Tarmin Inc. from ExWorks as part of the eleventh amendment of the ExWorks Credit Agreement (see Note 25). As a result, WISeKey entered into a warrant agreement with Tarmin Inc ("Tarmin") (the "Tarmin Warrant"), a private Delaware company, leader in data & software defined infrastructure to acquire 22% of common stock deemed outstanding at the time of exercise. The warrant may be exercised in parts or in full, at an exercise price of USD 0.01 per share at nominal value USD 0.0001. The purchase price of the Tarmin Warrant was USD 7,000,000, of which USD 3,000,000 was paid in cash on October 05, 2018 and the remaining USD 4,000,000 was paid on April 08, 2019.

The Tarmin Warrant was assessed as an equity investment without a readily determinable fair value and we elected the measurement at cost less impairment, adjusted for observable price changes for identical or similar investments of the same issuer as permitted by ASU 2016-01. As such, the Tarmin Warrant was initially recognized on the balance sheet at USD 7,000,000.

As at December 31, 2020, we performed a qualitative assessment to consider potential impairment indicators. We made reasonable efforts to identify any observable transactions of identical or similar investments, but did not identify any such transaction. Although there are positive indicators on the business performance of Tarmin, we identified a deterioration in the earnings performance and liquidity position and, as a result, assessed that the asset should be fully impaired. Therefore, we recorded an impairment loss of the full USD 7,000,000 carrying value of Tarmin in 2020. The carrying value of the Tarmin Warrant as at June 30, 2021 was USD nil.

Investment in FOSSA SYSTEMS s.l.

On April 08, 2021, WISeKey E.L.A. s.l. invested EUR 440,000 (USD 475,673 at historical rate) to acquire 15% of the share capital of FOSSA SYSTEMS s.l. ("FOSSA"), a Spanish aerospace company providing picosatellites for Low Earth Orbit (LEO) services as a vertically integrated service: from design to launch and operations.

The FOSSA investment was assessed as an equity investment without a readily determinable fair value and we elected the measurement at cost less impairment, adjusted for observable price changes for identical or similar investments of the same issuer as permitted by ASU 2016-01. As such, the FOSSA investment was initially recognized on the balance sheet at EUR 440,000 (USD 475,673 at historical rate).

As at June 30, 2021, we performed a qualitative assessment to consider potential impairment indicators. We made reasonable efforts to identify any observable transactions of identical or similar investments, but did not identify any such transaction. Therefore, no impairment loss was recorded in the six months to June 30, 2021, and the carrying value of the FOSSA investment as at June 30, 2021 was EUR 440,000 (USD 521,463 at closing rate).

Note 21. Equity securities, at fair value

On March 29, 2017, the Group announced that the respective boards of directors of WISeKey and OpenLimit Holding AG (DE: O5H) ("OpenLimit") had decided that discussions in relation to a possible merger transaction between WISeKey and OpenLimit as previously announced on July 25, 2016 were not being further pursued. The interim financing provided by WISeKey to OpenLimit in a principal amount of EUR 750,000 was, in accordance with applicable terms of a convertible loan agreement, converted into OpenLimit Shares issued by OpenLimit out of its existing authorized share capital. The conversion price was set at 95% of the volume weighted average price ("VWAP") of the OpenLimit shares traded on the Frankfurt stock exchange as reported by the Frankfurt stock exchange for the ten trading days immediately preceding and including March 29, 2017. WISeKey received 2,200,000 newly issued fully fungible listed OpenLimit Shares representing – post issuance of these new shares – an 8.4% stake in OpenLimit on an issued share basis. The effective conversion ratio was EUR 0.3409 per share. The equity securities were fair valued at market price on the date of the transaction to USD 846,561.

As at June 30, 2021, the fair value was recalculated using the closing market price on the XETRA of EUR 0.0235 (USD 0.0278) and amounted to USD 61,272. The difference of USD 240,029 from the fair value at December 31, 2020 (USD 301,301) was accounted for in the income statement as a non-operational expense.

Note 22. Accounts payable

The accounts payable balance consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Trade creditors	7,672	4,608
Factors or other financial institutions for borrowings	108	178
Accounts payable to Board Members	1	1,580
Accounts payable to other related parties	221	172
Accounts payable to underwriters, promoters, and employees	3,567	2,985
Other accounts payable	4,797	3,576
Total accounts payable	16,366	13,099

As at June 30, 2021 accounts payable to other related parties are made up of a CHF 204,630 (USD 221,176) payable to OISTE (see Note 37 for detail).

Accounts payable to underwriters, promoters and employees consist primarily of payable balances to employees in relation to holidays, bonus and 13th month accruals across WISeKey.

Other accounts payable are mostly amounts due or accrued for professional services (e.g. legal, accountancy, and audit services) and accruals of social charges in relation to the accrued liability to employees.

Note 23. Notes payable

Notes payable consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Short-term loan	4,030	4,030
Short-term loan from shareholders	86	85
Total notes payable	4,116	4,115

As at June 30, 2021, the current notes payable balance was made up of:

- a USD 4,030,000 short-term loan with ExWorks (see detail in Note 25).
- short-term loans from the noncontrolling shareholders of WISeKey SAARC for a total amount of USD 85,610 at closing rate.
 These loans do not bear interests.

The weighted–average interest rate on current notes payable, excluding loans from shareholders at 0%, was respectively 10% and 10% per annum as at June 30, 2021 and December 31, 2020.

Note 24. Other current liabilities

Other current liabilities consisted of the following:

	As at June 30,	As at December 31,
USD'000	2021 (unaudited)	2020
Value-Added Tax payable	110	312
Other tax payable	49	137
Customer contract liability, current	-	367
Other current liabilities	209	289
Total other current liabilities	368	1,105

Note 25. Loans and line of credit

Standby Equity Distribution Agreement with YA II PN, Ltd.

On February 08, 2018 WISeKey entered into a Standby Equity Distribution Agreement ("SEDA") with Yorkville. Under the terms of the SEDA as amended, Yorkville has committed to provide WISeKey, upon a drawdown request by WISeKey, up to CHF 50 million in equity financing originally over a three-year period ending March 01, 2021, now over a period of five years ending March 31, 2023 in line with the amendment signed by the parties on March 04, 2020. Provided that a sufficient number of class B shares is provided through share lending, WISeKey has the right to make drawdowns under the SEDA, at its discretion, by requesting Yorkville to subscribe for (if the class B shares are issued out of authorized share capital) or purchase (if the class B shares are delivered out of treasury) class B shares worth up to CHF 5,000,000 by drawdown, subject to certain exceptions and limitations (including the exception that a drawdown request by WISeKey shall in no event cause the aggregate number of class B shares held by Yorkville to meet or exceed 4.99% of the total number of shares registered with the commercial register of the Canton of Zug). The purchase price will be 93% of the relevant market price at the time of the drawdown, determined by reference to a ten-day trading period following the draw down request by WISeKey.

The instrument was assessed under ASC 815 as an equity instrument. WISeKey paid a one-time commitment fee of CHF 500,000 (USD 524,231 at historical rate) on April 24, 2018 in 100,000 WIHN class B shares. In line with ASU 2015-15 the commitment fee was capitalized as deferred charges to be amortized over the original duration of the contract as a reduction of equity.

In 2018, WISeKey made 4 drawdowns for a total of CHF 1,749,992 (USD 1,755,378 at historical rate) in exchange for a total of 540,539 WIHN class B shares issued out of authorized share capital or treasury share capital.

In 2019, WISeKey made 5 drawdowns for a total of CHF 1,107,931 (USD 1,111,764 at historical rate) in exchange for a total of 490,814 WIHN class B shares issued out of treasury share capital.

In 2020, WISeKey made 6 drawdowns for a total of CHF 1,134,246 (USD 1,208,569 at historical rate) in exchange for a total of 889,845 WIHN class B shares issued out of treasury share capital.

In 2021, WISeKey made one drawdown on April 15, 2021 for CHF 363,876 (USD 259,250 at historical rate) in exchange for 219,599 WIHN class B shares issued out of treasury share capital.

The amortization charge for the capitalized fee recognized in APIC amounted to USD 30,188 for the six months to June 30, 2021. As at June 30, 2021, the deferred charge balance was fully amortized.

As at June 30, 2021, the outstanding equity financing available was CHF 45,643,955.

Facility Agreement with YA II PN, Ltd.

On September 28, 2018, WISeKey entered into short-term Facility Agreement (the "Yorkville Loan") with Yorkville to borrow USD 3,500,000 repayable by May 01, 2019 in monthly cash instalments starting in November 2018. The loan bears an interest rate of 4% per annum payable monthly in arrears. A fee of USD 140,000 and debt issuance costs of USD 20,000 paid at inception.

The debt instrument was assessed as a term debt. A discount of USD 160,000 was recorded at inception and will be amortized using the effective interest method over the life of the debt.

The remaining loan balance at December 31, 2018 was USD 2,717,773 including unamortized debt discount of USD 57,007.

The discount amortization expense recorded for the period to December 31, 2018 was USD 102,993. In the period to December 31, 2018, WISeKey repaid USD 725,220 of the principal loan amount in cash.

On June 27, 2019, WISeKey entered into a Convertible Loan Agreement (the "Yorkville Convertible Loan") with Yorkville to borrow USD 3,500,000 repayable by August 01, 2020 in monthly instalments starting in August 01, 2019 either in cash or in WIHN class B Shares. The loan bears an interest rate of 6% per annum payable monthly in arrears. Total fees of USD 160,000 were paid at inception.

The conversion option into WIHN Class B shares is exercisable at the election of Yorkville and may be exercised at each monthly repayment date, covering any amount outstanding, be it principal and/or accrued interests. The initial exercise price is set at CHF 3.00 per WIHN class B Share but may be adjusted as a result of specific events so as to prevent any dilutive effect. The events triggering anti-dilution adjustments are: (a) increase of capital by means of capitalization of reserves, profits or premiums by distribution of WIHN Shares, or division or consolidation of WIHN Shares, (b) issue of WIHN shares or other securities by way of conferring subscription or purchase rights, (c) spin-offs and capital distributions other than dividends, and (d) dividends.

At the date of inception of the Yorkville Convertible Loan, on June 27, 2019, an unpaid balance of USD 500,000 remained on the Yorkville Loan. There was no unamortized debt discount on the Yorkville Loan as it was amortized in accordance with the planned repayment schedule, i.e. by May 01, 2019.

In line with ASC 470-50, we compared the present value of the new debt (the Yorkville Convertible Loan) to the present value of the old debt (the Yorkville Loan) using the net method and concluded that the difference was below the 10% threshold. Therefore the Yorkville Convertible Loan was analyzed as a debt modification and accounted for under ASC 470-50-40-14.

In line with ASU 2014-16, the convertible note was assessed as a hybrid instrument, being a debt instrument with an equity-linked component (the conversion option). Per ASC 815-10, the embedded conversion option met the definition of a derivative and was accounted for separately, thereby creating a debt discount.

The derivative liability component (the conversion option) was fair valued using a binomial lattice model, building in quoted market prices of WIHN class B shares, and inputs such as time value of money, volatility, and risk-free interest rates. It was valued at inception at USD 257,435, and was allocated between current and noncurrent on a prorata temporis basis according to the monthly repayment schedule. The derivative component will be revalued at fair value at each reporting date in line with ASC 815-15-30-1.

On the date of the agreement, WISeKey signed a warrant agreement granting Yorkville the option to acquire up to 500,000 WIHN class B shares at an exercise price of CHF 3.00, exercisable between June 27, 2019 and June 27, 2022. In order to prevent any dilutive effect, the exercise price may be adjusted as a result of the same specific events listed above as adjustments to the conversion price of the principal amount. In line with ASC 470-20-25-2, the proceeds from the convertible debt with a detachable warrant was allocated to the two elements based on the relative fair values of the debt instrument net of the warrant and the embedded conversion separated out on the one side, and the warrant at time of issuance on the other side. The warrant agreement was assessed as an equity instrument and was fair valued at grant for an amount of USD 373,574 using the Black-Scholes model and the market price of WIHN class B shares on the date of grant, June 27, 2019, of CH 2.35. The fair value of the debt was calculated using the discounted cash flow method as USD 3,635,638. Applying the relative fair value method per ASC 470-20-25-2, the recognition of the warrant agreement created a debt discount on the debt host in the amount of USD 326,126, and the credit entry was booked in APIC.

As a result of the above accounting entries, the total debt discount recorded at inception was USD 743,561, made up of USD 160,000 fees to Yorkville, USD 257,435 from the bifurcation of the embedded conversion option into derivative liabilities, and USD 326,126 from the recognition of the warrant agreement.

On March 04, 2020, WISeKey entered into the Second Yorkville Convertible Loan with Yorkville to borrow USD 4,000,000 repayable by April 30, 2021 in monthly instalments starting on March 30, 2020 either in cash or in WIHN class B Shares. The loan bears an interest rate of 6% per annum payable monthly in arrears. Total fees of USD 68,000 will be paid in monthly instalments over the life of the loan.

The conversion option into newly issued or existing WIHN Class B shares is exercisable at the election of Yorkville and may be exercised at any time until all amounts have been repaid in full, covering any amount outstanding, be it principal and/or accrued interests. The initial exercise price is set at CHF 3.00 per WIHN class B Share but may be adjusted as a result of specific events so as to prevent any dilution effect. The events triggering anti-dilution adjustments are: (a) increase of capital by means of capitalization of reserves, profits or premiums by distribution of WIHN Shares, or division or consolidation of WIHN Shares, (b) issue of WIHN shares or other securities by way of conferring subscription or purchase rights, (c) spin-offs and capital distributions other than dividends, and (d) dividends.

At the date of inception of the Second Yorkville Convertible Loan on March 04, 2020, an unpaid balance of USD 2,300,000 and an unamortized debt discount of USD 104.469 remained on the Yorkville Convertible Loan.

Per ASC 470-50, we compared the present value of the new debt (the Second Yorkville Convertible Loan) to the present value of the old debt (the Yorkville Convertible Loan) using the net method and concluded that the difference was below the 10% threshold. Therefore, the Second Yorkville Convertible Loan was analyzed as a debt modification and accounted for under ASC 470-50-40-14.

In line with ASU 2014-16, the convertible note was assessed as a hybrid instrument, being a debt instrument with an equity-linked component (the conversion option). Per ASC 815-10, the embedded conversion option met the definition of a derivative and was accounted for separately, thereby creating a debt discount.

The derivative liability component (the conversion option) was fair valued using a binomial lattice model, building in quoted market prices of WIHN class B shares, and inputs such as time value of money, volatility, and risk-free interest rates. It was valued at inception at USD nil. The derivative component will be revalued at fair value at each reporting date in line with ASC 815-15-30-1 and will be allocated between current and noncurrent on a prorata temporis basis according to the monthly repayment schedule (see Note 6).

In 2020, WISeKey's repayments amounted to a total of USD 2,307,021.

In the six months to June 30, 2021, WISeKey repaid the full remaining balance of the loan of USD 1,692,979 and recorded in the income statement a net gain/loss on derivative of USD nil and a net debt discount amortization expense of USD 82,560. As at June 30, 2021, the outstanding balance of the loan, and the carrying balances of the loan, the unamortized debt discount and the derivative component measured at fair value were USD nil. No conversion rights were exercised in 2021.

Credit Agreement with ExWorks Capital Fund I, L.P

On April 04, 2019 WISeCoin AG ("WISeCoin"), an affiliate of the Company, signed a credit agreement with ExWorks Capital Fund I, L.P ("ExWorks"). Under this credit agreement, WISeCoin was granted a USD 4,000,000 term loan and may add up to USD 80,000 accrued interest to the loan principal, hence a maximum loan amount of USD 4,080,000. The loan bears an interest rate of 10% p.a. payable monthly in arrears. The maturity date of the arrangement is April 04, 2020 therefore all outstanding balances are classified as current liabilities in the balance sheet. ExWorks can elect to have part of or all of the principal loan amount and interests paid either in cash or in WISeCoin Security Tokens (the "WCN Token") as may be issued by WISeCoin from time to time. As at June 30, 2019, the conversion price is set at CHF 12.42 per WCN Token based on a non-legally binding term sheet.

Under the terms of the credit agreement, WISeCoin is required to not enter into agreements that would result in liens on property, assets or controlled subsidiaries, in indebtedness other than the exceptions listed in the credit agreement, in mergers, consolidations, organizational changes except with an affiliate, contingent and third party liabilities, any substantial change in the nature of its business, restricted payments, insider transactions, certain debt payments, certain agreements, negative pledge, asset transfer other than sale of assets in the ordinary course of business, or holding or acquiring shares and/or quotas in another person other than WISeCoin R&D. Furthermore, WISeCoin is required to maintain its existence, pay all taxes and other liabilities.

Borrowings under the line of credit are secured by first ranking security interests on all material assets and personal property of WISeCoin, and a pledge over the shares in WISeCoin representing 90% of the capital held by the Company. Under certain circumstances, additional security may be granted over the intellectual property rights of WISeCoin and WISeCoin R&D, and the shares held by WISeCoin in WISeCoin R&D.

Total debt issue costs of USD 160,000 were recorded as debt discount and amortized over the duration of the loan. As at December 31, 2020, the debt discount was fully amortized.

As at June 30, 2021, the loan had not been repaid and the outstanding borrowings were USD 4,030,000, meaning that the loan is past due under the terms of the credit agreement with ExWorks. The Company is currently in negotiation with ExWorks regarding a potential sale of its investment in Tarmin, a Company in which ExWorks is also a significant shareholder. It is the view of the management of the Company that the sale of the investment in Tarmin and the repayment of the credit agreement are codependent and therefore the loan will be repaid at such time as the investment is sold. ExWorks continues to charge interest on the loan at the rate of 10% p.a. and has not launched any formal recovery proceedings as of the date of this report.

Credit Agreement with Long State Investment Limited

On December 16, 2019, WISeKey entered into a Convertible Term Loan Facility Agreement (the "LSI Convertible Facility") with Long State Investment Limited ("LSI"), a Hong Kong-based investment company, to borrow up to CHF 30 million. Under the terms of the LSI Convertible Facility, WISeKey will be able to drawdown individual term loans of up to CHF 500,000 or, if so agreed between the parties, up to CHF 2.5 million at an interest rate of 1.5% p.a., up to an aggregate amount of CHF 30 million over a commitment period of 24 months. LSI will have the right to convert a drawdown tranche into WIHN class B shares or, if so agreed among the parties and permitted by law, into American Depositary Shares ("ADSs") representing WIHN class B shares, within a period of 21 SIX trading days after each individual drawdown at 95% of the higher of (i) the then prevailing market rate and (ii) the minimum conversion price of CHF 1.80. Any term loan not converted by LSI initially will automatically convert into WIHN class B shares, or ADSs, 20 SIX trading days before the expiration of the commitment period at the applicable conversion price. Under certain circumstances, interest payments may be "paid in kind" by capitalizing such interest and adding to it the aggregate principal balance of the loan outstanding.

Due to LSI's option to convert the loan in part at each drawdown before maturity, the LSI Convertible Facility was assessed as a debt instrument with an embedded put option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the LSI Convertible Facility will be accounted for as a liability measured at fair value using the discounted cash flow method for each term loan (corresponding to each drawdown).

Total debt issue costs amounting to CHF 56,757 in legal fees and expense allowance were paid by WISeKey in 2019 and 2020, and a commitment fee payable in 400,000 WIHN class B shares was settled on January 23, 2020 with a fair value of CHF 759,200 based on the market price of the WIHN shares at settlement. The debt issue costs and commitment fee will be recorded as a debt discount proportionately

to each drawdown. However, as at June 30, 2021, WISeKey had not yet drawn down on the LSI Convertible Facility, therefore, in application of ASC 340-10-S99-1, WISeKey accounted for the debt issue costs of CHF 56,757 and the commitment fee of CHF 759,200 as a deferred asset to be amortized on a straight-line basis over the access period of the LSI Convertible Facility.

In 2020 and 2021, WISeKey did not make any drawdowns under the LSI Convertible Facility.

The amortization charge for the capitalized costs and fee recognized in the income statement amounted to CHF 210,684 (USD 232,054) for the six months ended June 30, 2021, and the remaining deferred charge balance was CHF 161,789 (USD 174,871) which was all current. As at June 30, 2021, the outstanding LSI Convertible Facility available was CHF 30.0 million (USD 32.4 million).

Loan Agreements with UBS SA

On March 26, 2020, two members of the Group entered into agreements to borrow funds under the Swiss Government supported COVID-19 Credit Facility (the "Covid loans") with UBS SA ("UBS"). Under the terms of the Agreement, UBS has lent such Group members a total of CHF 571,500. The loans are repayable in full by March 30, 2028, as amended, being the eighth anniversary of the date of deposit of the funds by UBS. Semi-annual repayments should start by March 31, 2022 and will be spread on a linear basis over the remaining term. The full repayment of the loans is permitted at any time. The interest rate is determined by Swiss COVID-19 Law and currently the Covid loans carry an interest rate of 0%. There were no fees or costs attributed to the Covid loans and as such there is no debt discount of debt premium associated with the loan facility.

Under the terms of the loans, the relevant companies are required to use the funds solely to cover the liquidity requirements of the Company. In particular, the Company cannot use the funds for the distribution of dividends and directors' fees as well as the repayment of capital contributions, the granting of active loans; refinancing of private or shareholder loans; the repayment of intra-group loans; or the transfer of guaranteed loans to a group company not having its registered office in Switzerland, whether directly or indirectly linked to applicant. The two members of the Group that obtained the loans met the requirements set for these loans.

During the six months to June 30, 2021, WISeKey repaid CHF 70,000 out of the loans. Therefore, as at June 30, 2021, the outstanding balance on the loans was CHF 501,500 (USD 542,050).

Credit Agreement with Nice & Green SA

On May 18, 2020, the Group entered into an Agreement for the Issuance and Subscription of Convertible Notes (the "Nice & Green Facility") with Nice & Green SA ("Nice & Green"), pursuant to which WISeKey has the right to draw down up to a maximum of CHF 10 million during a commitment period of 24 months commencing on May 20, 2020, in up to 25 tranches based upon 60% of the traded volume of the WIHN class B share on the SIX Swiss Stock Exchange over the 5 trading days preceding the subscription date. Each tranche is divided into 25 convertible notes that do not bear interest. Subject to a cash redemption right of WISeKey, the convertible notes are mandatorily convertible into WIHN class B shares within a period of 12 months from issuance (the "Nice & Green Conversion Period"). Conversion takes place upon request by Nice & Green during the Nice & Green Conversion Period, but in any case, no later than at the expiry of the Nice & Green Conversion Period, at a conversion price of 95% of the lowest daily volume-weighted average price of a WIHN class B share as traded on the SIX Swiss Exchange during the 10 trading days preceding the relevant conversion date.

Due to Nice & Green's option to convert the loan in part at any time before maturity, and as there is no limit on the number of shares to be delivered, the Nice & Green Facility was assessed as a share-settled debt instrument with an embedded put option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the Nice & Green Facility will be accounted for as a liability measured at cost for each term loan (corresponding to each drawdown).

Per the terms of the Nice & Green Facility, WISeKey pays to Nice & Green, in cash, a commitment fee of 5% of the amount of each subscription which will be recorded as a debt discount against each subscription (principal). Nice & Green also undertake to pay to WISeKey an incentive fee equal to 10% of the positive difference between the net capital gain and the net capital loss generated by Nice & Green on the sales of WIHN class B shares. The incentive fee income is recorded in the income statement in other non-operating income (see Note 32).

In 2020, WISeKey subscribed for a total of CHF 8,916,889 (USD 9,693,283 at historical rate) which was fully converted in the year 2020.

During the six months to June 30, 2021, the Group did not make any subscription under the Nice & Green Facility. Therefore, as at June 30, 2021 the outstanding Nice & Green Facility available was CHF 1,083,111 (USD 1,170,689) and there were no unconverted outstanding loan amounts.

Convertible Loan with Crede CG III, Ltd

On August 07, 2020, WISeKey entered into Convertible Loan Agreement (the "Crede Convertible Loan") with Crede CG III, Ltd ("Crede") for an amount of USD 5 million. The funds were made available on September 23, 2020. The loan bears a 5% p.a. interest rate, payable in arrears on a quarterly basis starting September 30, 2020, and is repayable in WIHN class B shares any time between September 23, 2020 and the maturity date of August 07, 2022, at Crede's election. Accrued interests are payable, at WISeKey's sole election, either in cash or in WIHN class B shares. The conversion price applicable to the prepayment of the principal amount or accrued interest is calculated as 92%

of the lowest daily volume weighted average share prices quoted on the SIX Stock Exchange during the 10 trading days immediately preceding the relevant conversion date or interest payment date respectively, disregarding any day on which Crede (or its Affiliates or related party) has effected any trade, converted into USD at the exchange rate reported by Bloomberg at 9 a.m. Swiss time on the relevant conversion date or interest payment date.

Due to Crede's option to convert the loan in part or in full at any time before maturity, the Crede Convertible Loan was assessed as a share-settled debt instrument with an embedded put option. Because the value that Crede will receive at settlement does not vary with the value of the shares, the settlement provision is not considered a conversion option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the Crede Convertible Loan was accounted for as a liability measured at fair value using the discounted cash flow method at inception.

On the date of the Crede Convertible Loan, WISeKey signed a warrant agreement granting Crede the option to acquire up to 1,675,885 WIHN class B shares at an exercise price set initially at CHF 1.65 but revised down to CHF 1.375 in an amendment signed by both parties on September 18, 2020, exercisable between September 24, 2020 and September 14, 2023. Per the warrant agreement's term, the date of grant under US GAAP is September 14, 2020 upon issuance of a Tax Ruling from the Swiss Federal Tax Administration and the Zug tax authority. In line with ASC 470-20-25-2, the proceeds from the convertible debt with a detachable warrant was allocated to the two elements based on the relative fair values of the debt instrument without the warrant and of the warrant at time of issuance. The warrant agreement was assessed as an equity instrument and was fair valued at grant at an amount of USD 866,046 using the Black-Scholes model and the market price of WIHN class B shares on the date of the amendment, September 18, 2020, of CHF 1.25. The fair value of the debt was calculated using the discounted cash flow method as USD 5,387,271. Applying the relative fair value method per ASC 470-20-25-2, the recognition of the warrant agreement created a debt discount on the debt host in the amount of USD 692,469, and the credit entry was booked in APIC.

In 2020, Crede issued two exercise notices under the Crede Convertible Loan, resulting in conversions for a total of 769,333 WIHN class B shares for a total conversion of USD 784,880.

In 2021, Crede issued two exercise notices under the Crede Convertible Loan, resulting in the following conversions:

- On January 4, 2021, for 1,000,000 WIHN class B shares delivered on January 6th, 2021 for a conversion of USD 1,038,627.
- On February 16, 2021, for 3,058,358 WIHN class B shares delivered on February 17th, 2021 for a conversion of USD 3,176,493.

The loan was fully converted with the last conversion on February 16, 2021. Therefore, there was no outstanding balance on this loan as at June 30, 2021.

For the 6 months to June 30, 2021, the Group recorded a net debt discount amortization expense in the income statement of USD 30,082.

Credit Agreement with GLOBAL TECH OPPORTUNITIES 8

On December 08, 2020, WISeKey entered into an Agreement for the Issuance and Subscription of Convertible Notes (the "GTO Facility") with GLOBAL TECH OPPORTUNITIES 8 ("GTO"), pursuant to which GTO commits to grant a loan to WISeKey for up to a maximum amount of CHF 15.5 million divided into tranches of variable sizes, during a commitment period of 18 months ending June 09, 2022. The dates and amounts of the first 3 tranches were agreed in advance in the GTO Facility agreement; for the remaining facility, GTO has the right to request the subscription of 2 tranches, all other tranches are to be subscribed for by WISeKey during the commitment period, subject to certain conditions. Each tranche is divided into convertible notes of CHF 10,000 each that do not bear interest. Subject to a cash redemption right of WISeKey, the convertible notes are mandatorily convertible into WIHN class B shares within a period of 12 months from issuance (the "GTO Conversion Period"). Conversion takes place upon request by GTO during the GTO Conversion Period, but in any case no later than at the expiry of the GTO Conversion Period, at a conversion price of the higher of (i) CHF 0.05 and (ii) 97% of the average of the 5 lowest closing volume-weighted average price of a Class B Share as traded on the SIX Swiss Exchange during the 20 trading days preceding the relevant conversion date.

Due to GTO's option to convert the loan in part or in full at any time before maturity, the GTO Facility was assessed as a share-settled debt instrument with an embedded put option. Because the value that GTO will receive at settlement does not vary with the value of the shares, the settlement provision is not considered a conversion option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the GTO Facility was accounted for as a liability measured at fair value using the discounted cash flow method at inception.

Debt issue costs made up of legal expenses of commitment fee of CHF 697,500, representing 4.5% of the maximum GTO Facility, were due to GTO at inception, payable throughout the commitment period but no later than June 08, 2022. These were paid in variable amounts at each subscription and fully settled as at June 30, 2021. At inception on December 08, 2020, in application of ASC 340-10-S99-1, WISeKey accounted for the debt issue costs of and the commitment fee of CHF 697,500 as a deferred asset to be amortized on a straight-line basis over the commitment period (access period) of the GTO Facility. Upon subscription of each tranche, the debt issue costs and commitment fee are recorded as a debt discount proportionately to each tranche amount.

Additionally, per the terms of the GTO Facility, upon each tranche subscription, WISeKey will grant GTO the option to acquire WIHN class B shares at an exercise price of the higher of (a) 120% of the 5-trading day VWAP of the WIHN class B shares on the SIX Swiss Stock Exchange over the 5 trading days immediately preceding the relevant subscription request and (b) CHF 1.50 (the "GTO Warrant Exercise Price"). The number of warrants granted at each tranche subscription is calculated as 15% of the principal amount of each Tranche divided

by the GTO Warrant Exercise Price. Each warrant agreement has a 5-year exercise period starting on the relevant subscription date. In line with ASC 470-20-25-2, for each subscription, the proceeds from the convertible notes with a detachable warrant were allocated to the two elements based on the relative fair values of the debt instrument without the warrant and of the warrant at time of issuance. When assessed as an equity instrument, the warrant agreement is fair valued at grant using the Black-Scholes model and the market price of WIHN class B shares on the date of the subscription. The fair value of the debt is calculated using the discounted cash flow method.

In 2020, WISeKey subscribed for a total of CHF 4,660,000 (USD 5,240,772 at historical rate) and GTO converted a total amount of CHF 750,000 (USD 845,115 at historical rate).

During the six months ended June 30, 2021, the Group made a total of four subscriptions for a total of CHF 10,840,000 (USD 11,872,396 at historical rate) under the terms of the GTO Facility. Per the terms of the GTO Facility, WISeKey issued GTO with 458,332 warrants on WIHN class B shares at an exercise price of CHF 1.584, 102,599 warrants at an exercise price of CHF 2.193, 187,188 warrants at an exercise price of CHF 2.40, and 105,042 warrants at an exercise price of CHF 2.142. The warrant agreements were all assessed as equity instruments and were fair valued at grant at an aggregate amount of CHF 924,956 (USD 1,011,033) using the Black-Scholes model and the market price of WIHN class B shares on the date of grant. For each subscription, the fair value of the debt was calculated using the discounted cash flow method then, applying the relative fair value method per ASC 470-20-25-2, the recognition of the warrant agreement created a debt discount on the debt host and the credit entry was booked in APIC. The cumulated fair value of the debt for the four subscriptions was CHF 10,452,997 (USD 11,448,534), with a cumulated debt discount of CHF 886,538 (USD 970,929).

During the six months ended June 30, 2021, GTO issued a total of twenty-two conversion notices amounting to CHF 14,690,000 (USD 16,122,226 at historical rates), resulting in the delivery of a total of 13,279,108 WIHN class B shares.

During the six months ended June 30, 2021, a debt discount charge of CHF 23,204 (USD 25,558) and deferred charges in the amount of CHF 70,604 (USD 77,767) were amortized to the income statement, and unamortized debt discounts totaling CHF 1,630,769 (USD 1,796,183) were booked to APIC on conversions as per ASC 470-02-40-4.

As at June 30, 2021, the outstanding GTO Facility available was CHF nil. Convertible notes in an aggregate amount of CHF60,000 (USD 64,851) remained unconverted and the unamortized debt discount balance was CHF 4,310 (USD 4,658), hence a carrying value of CHF 55,690 (USD 60,193) as at June 30, 2021. The deferred charge balance was CHF nil.

Credit Agreement with L1 Capital Global Opportunities Master Fund

On June 29,2021, WISeKey entered into an Agreement for the Issuance and Subscription of Convertible Notes (the "L1 Facility") with L1 Capital Global Opportunities Master Fund ("L1"), pursuant to which L1 commits to grant a loan to WISeKey for up to a maximum amount of USD 22 million divided into tranches of variable sizes, during a commitment period of 24 months ending June 28, 2023. The initial tranche was agreed in the L1 Facility agreement as USD 11 million to be funded on June 29, 2021 (the "Initial Tranche"). For the remaining facility, WISeKey has the right to request L1 to subscribe for four additional note tranches of USD 2,750,000 each or any other amount agreed between the parties, at the date and time determined by WISeKey during the commitment period, subject to certain conditions. Each tranche is divided into convertible notes of USD 100,000 each that bear interest of 6% per annum. Subject to a cash redemption right of WISeKey, the convertible notes are mandatorily convertible into WIHN class B shares within a period of 24 months from issuance (the "L1 Conversion Period"). Conversion takes place upon request by L1 during the L1 Conversion Period, but in any case no later than at the expiry of the L1 Conversion Period. Each calendar month, L1 can request conversion of up to 12.5% of the principal amount of all issued tranches at a conversion price of 95% of the lowest daily volume-weighted average price of a Class B Share as traded on the SIX Swiss Exchange during the 5 trading days preceding the relevant conversion price for the additional converted amounts is set at the higher of (i) the Fixed Conversion price applicable to relevant tranche, and (ii) 95% of the lowest daily volume-weighted average price of a Class B Share as traded on the SIX Swiss Exchange during the 5 trading days preceding the relevant conversion date.

Due to L1's option to convert the loan in part or in full at any time before maturity, the L1 Facility was assessed as a share-settled debt instrument with an embedded put option. In line with ASC 480-10-55-43 and ASC 480-10-55-44, because the value that L1 will predominantly receive at settlement does not vary with the value of the shares, the settlement provision is not considered a conversion option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the L1 Facility was accounted for as a liability measured at fair value using the discounted cash flow method at inception.

Debt issue costs made up of legal expenses of USD 36,745, a commission of USD 802,500 to the placement agent, a fee of USD 220,000 to L1 representing 2% of the principal value of the initial tranche, and a subscription fee of USD 220,000 to L1 representing 2% of the principal value of the initial tranche payable in WIHN class B shares were due upon issuance of the Initial Tranche and recorded as a debt discount against the Initial Tranche principal amount. The subscription fee was paid in 145,953 WIHN class B shares and was fair valued at CHF 183,901 (USD 200,871) based on the market value of the shares at issuance. Upon subscription of each subsequent tranche, debt issue costs corresponding to the fair value of the L1 subscription fee payable in WIHN class B shares representing 2% of the principal value of the subscribed funds will be recorded as a debt discount against each tranche.

Additionally, per the terms of the L1 Facility, upon each tranche subscription, WISeKey will grant L1 the option to acquire WIHN class B shares at an exercise price of the higher of (a) 1.5 times the 5-trading day volume-weighted average price of the WIHN class B shares on the SIX Swiss Stock Exchange immediately preceding the tranche closing date and (b) CHF 5.00 (the "L1 Warrant Exercise Price"). The

number of warrants granted at each tranche subscription is calculated as 25% of the principal amount of each tranche divided by the volume-weighted average price of the trading day immediately preceding the tranche closing date. Each warrant agreement has a 3-year exercise period starting on the relevant subscription date. In line with ASC 470-20-25-2, for each subscription, the proceeds from the convertible notes with a detachable warrant were allocated to the two elements based on the relative fair values of the debt instrument without the warrant and of the warrant at time of issuance. When assessed as an equity instrument, the warrant agreement is fair valued at grant using the Black-Scholes model and the market price of WIHN class B shares on the date of the subscription. The fair value of the debt is calculated using the discounted cash flow method.

During the 6 months to June 30, 2021, the initial tranche for convertibles notes in the amount of USD 11 million was issued on June 29, 2021. In line with the terms of the L1 Facility, WISeKey issued L1 with 1,817,077 warrants on WIHN class B shares at an exercise price of CHF 5.00. The warrant agreement was assessed as an equity instrument and was fair valued at grant at an amount of USD 296,208 using the Black-Scholes model and the market price of WIHN class B shares on the date of grant of CHF 1.39. The fair value of the debt was calculated using the discounted cash flow method as USD 11,354,678. Applying the relative fair value method per ASC 470-20-25-2, the recognition of the warrant agreement created a debt discount on the debt host in the amount of USD 279,660, and the credit entry was booked in APIC.

During the 6 months to June 30, 2021, L1 did not issue any conversion notice. A debt discount charge of USD 3,673 was amortized to the income statement.

As at June 30, 2021, the outstanding L1 Facility available was USD 11 million. Convertible notes in an aggregate amount of USD 11 million remained unconverted and the unamortized debt discount balance was USD 1,514,767, hence a carrying value of USD 9,485,233 as at June 30, 2021.

Credit Agreement with Anson Investments Master Fund LP

On June 29,2021, WISeKey entered into an Agreement for the Issuance and Subscription of Convertible Notes (the "Anson Facility") with with Anson Investments Master Fund LP ("Anson"), pursuant to which Anson commits to grant a loan to WISeKey for up to a maximum amount of USD 22 million divided into tranches of variable sizes, during a commitment period of 24 months ending June 28, 2023. The initial tranche was agreed in the Anson Facility agreement as USD 11 million to be funded on June 29, 2021 (the "Initial Tranche"). For the remaining facility, WISeKey has the right to request Anson to subscribe for four additional note tranches of USD 2,750,000 each or any other amount agreed between the parties, at the date and time determined by WISeKey during the commitment period, subject to certain conditions. Each tranche is divided into convertible notes of USD 100,000 each that bear interest of 6% per annum. Subject to a cash redemption right of WISeKey, the convertible notes are mandatorily convertible into WIHN class B shares within a period of 24 months from issuance (the "Anson Conversion Period"). Conversion takes place upon request by Anson during the Anson Conversion Period, but in any case no later than at the expiry of the Anson Conversion Period. Each calendar month, Anson can request conversion of up to 12.5% of the principal amount of all issued tranches at a conversion price of 95% of the lowest daily volume-weighted average price of a Class B Share as traded on the SIX Swiss Exchange during the 5 trading days preceding the relevant conversion price for the additional converted amounts is set at the higher of (i) the Fixed Conversion price applicable to relevant tranche, and (ii) 95% of the lowest daily volume-weighted average price of a Class B Share as traded on the SIX Swiss Exchange during the 5 trading days preceding the relevant conversion date.

Due to Anson's option to convert the loan in part or in full at any time before maturity, the Anson Facility was assessed as a share-settled debt instrument with an embedded put option. In line with ASC 480-10-55-43 and ASC 480-10-55-44, because the value that Anson will predominantly receive at settlement does not vary with the value of the shares, the settlement provision is not considered a conversion option. We assessed the put option under ASC 815 and concluded that it is clearly and closely related to its debt host and therefore did not require bifurcation. Per ASC 480-10-25, the Anson Facility was accounted for as a liability measured at fair value using the discounted cash flow method at inception.

Debt issue costs made up of legal expenses of USD 4,197, a commission of USD 802,500 to the placement agent, a fee of USD 220,000 to Anson representing 2% of the principal value of the initial tranche, and a subscription fee of USD 220,000 to Anson representing 2% of the principal value of the initial tranche payable in WIHN class B shares were due upon issuance of the Initial Tranche and recorded as a debt discount against the Initial Tranche principal amount. The subscription fee was paid in 145,953 WIHN class B shares and was fair valued at CHF 183,901 (USD 200,871) based on the market value of the shares at issuance. Upon subscription of each subsequent tranche, debt issue costs corresponding to the fair value of the Anson subscription fee payable in WIHN class B shares representing 2% of the principal value of the subscribed funds and an Anson fee representing 2% of the principal value of the subscribed funds will be recorded as a debt discount against each tranche.

Additionally, per the terms of the Anson Facility, upon each tranche subscription, WISeKey will grant Anson the option to acquire WIHN class B shares at an exercise price of the higher of (a) 1.5 times the 5-trading day volume-weighted average price of the WIHN class B shares on the SIX Swiss Stock Exchange immediately preceding the tranche closing date and (b) CHF 5.00 (the "Anson Warrant Exercise Price"). The number of warrants granted at each tranche subscription is calculated as 25% of the principal amount of each tranche divided by the volume-weighted average price of the trading day immediately preceding the tranche closing date. Each warrant agreement has a 3-year exercise period starting on the relevant subscription date. In line with ASC 470-20-25-2, for each subscription, the proceeds from the convertible notes with a detachable warrant were allocated to the two elements based on the relative fair values of the debt instrument without the warrant and of the warrant at time of issuance. When assessed as an equity instrument, the warrant agreement is fair valued at grant using the Black-Scholes model and the market price of WIHN class B shares on the date of the subscription. The fair value of the debt is calculated using the discounted cash flow method.

During the 6 months to June 30, 2021, the initial tranche for convertibles notes in the amount of USD 11 million was issued on June 29, 2021. In line with the terms of the Anson Facility, WISeKey issued Anson with 1,817,077 warrants on WIHN class B shares at an exercise price of CHF 5.00. The warrant agreement was assessed as an equity instrument and was fair valued at grant at an amount of USD 296,208 using the Black-Scholes model and the market price of WIHN class B shares on the date of grant of CHF 1.39. The fair value of the debt was calculated using the discounted cash flow method as USD 11,354,678. Applying the relative fair value method per ASC 470-20-25-2, the recognition of the warrant agreement created a debt discount on the debt host in the amount of USD 279,660, and the credit entry was booked in APIC.

During the 6 months to June 30, 2021, Anson did not issue any conversion notice. A debt discount charge of USD 3,604 was amortized to the income statement.

As at June 30, 2021, the outstanding Anson Facility available was USD 11 million. Convertible notes in an aggregate amount of USD 11 million remained unconverted and the unamortized debt discount balance was USD 1,483,115, hence a carrying value of USD 9,516,885 as at June 30, 2021.

Note 26. Indebtedness to related parties, noncurrent

On May 27, 2020, Aquilon Invest GmbH entered into a loan agreement with arago GmbH for an amount of EUR 1,918,047.09. Aquilon Invest GmbH, a company wholly-owned by the Managing Director of arago GmbH, Hans- Christian Boos, is a minority shareholder of arago GmbH. The loan carries an interest rate of 6% per annum payable annually in arrears. The loan matures on May 26, 2025 but arago GmbH may repay it in part or in full at any time before maturity. As at June 30. 2021, the balance of the loan and accrued interests due by arago GmbH to Hans-Christian Boos as ultimate beneficiary was EUR 2,047,485 (USD 2,426,562).

Note 27. Employee benefit plans

Defined benefit post-retirement plan

The Group maintains three pension plans: one maintained by WISeKey SA and one by WISeKey International Holding Ltd, both covering its employees in Switzerland, as well as one maintained by WISeKey Semiconductors SAS covering WISeKey's French employees.

All plans are considered defined benefit plans and accounted for in accordance with ASC 715 Compensation – Retirement Benefits. This model allocates pension costs over the service period of employees in the plan. The underlying principle is that employees render services ratably over this period, and therefore, the income statement effects of pensions should follow a similar pattern. ASC 715 requires recognition of the funded status or difference between the fair value of plan assets and the projected benefit obligations of the pension plan on the balance sheet, with a corresponding adjustment recorded in the net loss. If the projected benefit obligation exceeds the fair value of the plan assets, then that difference or unfunded status represents the pension liability.

The Group records net service cost as an operating expense and other components of defined benefit plans as a non-operating expense in the statement of comprehensive loss.

The liabilities and annual income or expense of the pension plan are determined using methodologies that involve several actuarial assumptions, the most significant of which are the discount rate and the long-term rate of asset return (based on the market-related value of assets). The fair value of plan assets is determined based on prevailing market prices.

The defined benefit pension plan maintained by WISeKey Semiconductors SAS, and their obligations to employees in terms of retirement benefits, is limited to a lump sum payment based on remuneration and length of service, determined for each employee. The plan is not funded.

The pension liability calculated as at June 30, 2021, is based on annual personnel costs and assumptions from December 31, 2020.

The expected future cash flows to be paid by the Group for employer contribution for the year ended December 31, 2021 are USD 248,000.

Movement in Funded Status	6 months ended J	une 30,
USD'000	2021	2020
Net Service cost	136	206
Interest cost/(credit)	16	24
Expected return on Assets	(100)	-
Amortization on Net (gain)/loss	135	123
Amortization on Prior service cost/(credit)	6	30
CTA	8	-
Total Net Periodic Benefit Cost/(credit)	201	383
Employer contributions paid in the period	(124)	(173)
Total Cashflow	(124)	(173)

All of the assets are held under the collective contract by the plan's re-insurer company and are invested in a mix of Swiss and International bond and equity securities.

Note 28. Commitments and contingencies

Lease commitments

The future payments due under leases are shown in Note 18.

Guarantees

Our software and hardware product sales agreements generally include certain provisions for indemnifying customers against liabilities if our products infringe a third party's intellectual property rights. Certain of our product sales agreements also include provisions indemnifying customers against liabilities in the event we breach confidentiality or service level requirements. It is not possible to determine the maximum potential amount under these indemnification agreements due to our lack of history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. To date, we have not incurred any costs as a result of such indemnifications and have not accrued any liabilities related to such obligations in our consolidated financial statements.

Note 29. Stockholders' equity

WISeKey International Holding Ltd	As at June 30, 202	1	As at December 3	1, 2020
Share Capital	Class A Shares	Class B Shares	Class A Shares	Class B Shares
Par value per share (in CHF)	0.01	0.05	0.01	0.05
Share capital (in USD)	400,186	3,860,858	400,186	2,490,403
Per Articles of association and Swiss capital categories				
Authorized Capital - Total number of authorized shares	-	33,869,207	-	7,808,906
Conditional Share Capital - Total number of conditional shares	12,000,000	31,469,207	-	7,804,030
Total number of fully paid-in shares	40,021,988	72,720,054	40,021,988	47,622,689
Per US GAAP				
Total number of authorized shares	40,021,988	138,058,468	40,021,988	63,234,625
Total number of fully paid-in issued shares	40,021,988	72,720,054	40,021,988	47,622,689
Total number of fully paid-in outstanding shares	40,021,988	60,786,682	40,021,988	42,839,554
Par value per share (in CHF)	0.01	0.05	0.01	0.05
Share capital (in USD)	400,186	3,860,858	400,186	2,490,403
Total share capital (in USD)	4,261,044		2,890,589	
Treasury Share Capital				
Total number of fully paid-in shares held as treasury shares	-	11,933,372	-	4,783,135
Treasury share capital (in USD)	-	644,402	-	505,154
Total treasury share capital (in USD)	-	644,402	-	505,154

Note: unregistered conversion of conditional capital NOT deducted from total number of conditional shares, i.e. as if the issue had not taken place.

In the six months ended June 30, 2021, WISeKey purchased a total of 12,986,037 treasury shares at an average purchase price of USD 0.06 per share, and sold a total of 5,835,800 treasury shares at an average sale price of USD 1.17 per share.

In 2020, WISeKey purchased a total of 8,458,273 treasury shares at an average purchase price of USD 0.15 per share, and sold a total of 4,877,329 treasury shares at an average sale price of USD 0.99 per share.

Share buyback program

On July 09, 2019, the Group started a share buyback program on the SIX Swiss Exchange to buy back WIHN class B shares up to a maximum 10.0% of the share capital and 5.35% of the voting rights. In compliance with Swiss Law, at no time will the group hold more than 10% of its own registered shares. The share buyback program will end on July 08, 2022 but WISeKey may terminate the buyback program early.

As at June 30, 2021, WISeKey's treasury share balance did not include any shares purchased through the share buyback program.

Voting rights

Each share carries one vote at a general meeting of shareholders, irrespective of the difference in par value of class A shares (CHF 0.01 per share) and class B shares (CHF 0.05 per share). Our class A shares have a lower par value (CHF 0.01) than our class B shares (CHF 0.05) but have same voting right as the higher par value class B shares, namely one (1) vote per share. This means that, relative to their respective per share contribution to the Company's capital, the holders of our class A shares have a greater relative per share voting power than the holders of our class B shares for matters that require approval on the basis of a specified majority of shares present at the shareholders meeting.

Shareholder resolutions and elections (including elections of members of the board of directors) require the affirmative vote of an absolute majority of the votes represented (in person or by proxy) at a general meeting of shareholders (each class A share and each class B share having one vote), unless otherwise stipulated by law or our Articles. The following matters require approval by a majority of the par value of the shares represented at the general meeting (each class A share having a par value of CHF 0.01 per share and each class B share having a par value of CHF 0.05 per share):

- electing our auditor;
- appointing an expert to audit our business management or parts thereof;
- adopting any resolution regarding the instigation of a special investigation; and
- adopting any resolution regarding the initiation of a derivative liability action.

In addition, under Swiss corporation law and our Articles, approval by two-thirds of the shares represented at the meeting, and by the absolute majority of the par value of the shares represented is required for:

- amending our corporate purpose;
- creating or cancelling shares with preference rights;
- restricting the transferability of registered shares;
- restricting the exercise of the right to vote or the cancellation thereof;
- creating authorized or conditional share capital;
- increasing the share capital out of equity, against contributions in kind or for the purpose of acquiring specific assets and granting specific benefits;
- limiting or withdrawing shareholder's pre-emptive rights:
- relocating our registered office;
- converting registered shares into bearer shares and vice versa;
- our dissolution or liquidation; and
- transactions among corporations based on Switzerland's Federal Act on Mergers, Demergers, Transformations and the Transfer of Assets of 2003, as amended (the "Swiss Merger Act") including a merger, demerger or conversion of a corporation.

In accordance with Swiss law and generally accepted business practices, our Articles do not provide attendance quorum requirements generally applicable to general meetings of shareholders.

Both categories of Shares confer equal entitlement to dividends and liquidation rights relative to the nominal value of the class A shares and the class B shares, respectively.

Only holders of Shares (including nominees) that are recorded in the share register as of the record date communicated in the invitation to the General Meeting are entitled to vote at a General Meeting.

Any acquirer of Shares who is not registered in the share register as a shareholder with voting rights may not vote at or participate in any General Meeting, but will still be entitled to dividends and other rights with financial value with respect to such Shares.

Each holder of class A shares has entered into an agreement (each such agreement a "Shareholder Agreement") with WISeKey, pursuant to which such holder of class A shares has given the undertaking vis-à-vis WISeKey not to (i) directly or indirectly offer, sell, transfer or grant any option or contract to purchase, purchase any option or contract to sell, grant instruction rights with respect to or otherwise dispose of, or (ii) solicit any offers to purchase, otherwise acquire or be entitled to, any of his/her/its class A shares or any right associated therewith (collectively a "Transfer"), except if such Transfer constitutes a "Permitted Transfer", as defined hereafter. A Permitted Transfer is defined as a Transfer by a holder of class A share to his/her spouse or immediate family member (or a trust related to such immediate family member) or a third party for reasonable estate planning purposes, the transfer to an affiliate and any transfer following conversion of his/her/its class A shares into class B shares. Each holder of a class A share has the right to request that, at WISeKey's annual General Meeting, an item be

included on the agenda according to which class A shares are, at the discretion of each holder of class A shares, converted into class B shares.

Note 30. Revenue

Disaggregation of revenue

The following table shows the Group's revenues disaggregated by reportable segment and by product or service type:

Disaggregation of revenue	Typical payment	At one point in	n time	Over time		Total	
		6 months ended	June 30,	6 months ended J	lune 30,	6 months ended	June 30,
USD'000		2021	2020	2021	2020	2021	2020
IoT Segment							
Secure chips	Upon delivery	7,201	7,825	-	-	7,201	7,825
Total IoT segment revenue		7,201	7,825	-	-	7,201	7,825
mPKI Segment							
Certificates	Upon issuance	-	-	-	-	-	-
Licenses and integration	Upon delivery	78	104	-	-	78	104
SaaS, PCS and hosting	Quarterly or yearly	-	-	524	95	524	95
Total mPKI segment revenue		78	104	524	95	602	199
Al Segment							
SaaS, PCS and hosting	Quarterly or yearly	-	-	2,142	-	2,142	-
Total Al segment revenue		-	-	2,142	-	2,142	-
Total Revenue		7,279	7,929	2,666	95	9,945	8,024

For the six months ended June 30, 2021 and the year 2020, the Group recorded no revenues related to performance obligations satisfied in prior periods.

The following table shows the Group's revenues disaggregated by geography, based on our customers' billing addresses:

Net sales by region 6 months ended June 30,

USD'000	2021	2020
IoT Segment		
Switzerland	365	-
Rest of EMEA	1,798	2,773
North America	4,497	4,302
Asia Pacific	516	709
Latin America	25	41
Total IoT segment revenue	7,201	7,825
mPKI Segment		
Switzerland	537	143
Rest of EMEA	38	49
North America	6	-
Asia Pacific	-	7
Latin America	21	-
Total mPKI segment revenue	602	199
Al Segment		
Switzerland	137	-
Rest of EMEA	1,796	-
North America	209	-
Asia Pacific	-	-
Latin America	-	-
Total Al segment revenue	2,142	-
Total Net sales	9,945	8,024

^{*}EMEA means Europe, Middle East and Africa

Contract assets, deferred revenue and contract liability

Our contract assets, deferred revenue and contract liability consist of:

	As at June 30,	As at December 31,
USD'000	2021	2020
Trade accounts receivables		
Trade accounts receivable - IoT segment	2,424	2,227
Trade accounts receivable - mPKI segment	46	381
Trade accounts receivable - AI segment	717	-
Total trade accounts receivables	3,187	2,608
Contract assets	-	-
Total contract assets	-	-
Contract liabilities - current	-	367
Contract liabilities - noncurrent	-	23
Total contract liabilities	-	390
Deferred revenue		
Deferred revenue - mPKI segment	188	171
Deferred revenue - IoT segment	249	150
Deferred revenue - AI segment	563	-
Total deferred revenue	1,000	321
Revenue recognized in the period from amounts included in the deferred revenue of the mPKI segment at the beginning of the year	141	84

Increases or decreases in trade accounts receivable, contract assets, deferred revenue and contract liability were primarily due to normal timing differences between our performance and customer payments.

Remaining performance obligations

As of June 30, 2021, approximately USD 999,696 is expected to be recognized from remaining performance obligations for contracts. We expect to recognize revenue for these remaining performance obligations during the next three years approximately as follows:

Estimated revenue from remaining performance obligations

as at June 30, 2021 (USD'000)		Total
	2021	629
	2022	370
	2023	1
Total remaining performance obligation		1,000

Note 31. Stock-based compensation

Employee stock option plans

The Stock Option Plan ("ESOP 1") was approved on December 31, 2007 by the stockholders of WISeKey SA, representing 2,632,500 options convertible into WISeKey SA shares with an exercise price of CHF 0.01 per share.

The Stock Option Plan ("ESOP 2") was approved on December 31, 2011 by the stockholders of WISeKey SA, representing 16,698,300 options convertible into WISeKey SA shares with an exercise price of CHF 0.01 per share.

At March 22, 2016 as part of the reverse acquisition transaction, both ESOP plans in existence in WISeKey SA were transferred to WISeKey International Holding Ltd at the same terms, with the share exchange term of 5:1 into WIHN class B shares.

Grants

In the 6 months to June 30, 2021, the Group granted a total of 33,896 options exercisable in WIHN class B shares. Each option is exercisable into one class B share.

The options granted consisted of:

- 27,375 options with immediate vesting granted to Board members, none of which had been exercised as of June 30, 2021; and
- 6,521 options with immediate vesting granted to external advisor, all of which had been exercised as of June 30, 2021.

The options granted were valued at grant date using the Black-Scholes model.

Stock option charge to the income statement

The Group calculates the fair value of options granted by applying the Black-Scholes option pricing model. Expected volatility is based on historical volatility of WIHN class B shares.

The following assumptions were used to calculate the compensation expense and the calculated fair value of stock options granted:

Assumption	June 30, 2021	June 30, 2020
Dividend yield	None	None
Risk-free interest rate used (average)	1.00%	1.00%
Expected market price volatility	61.33%	37.61%
Average remaining expected life of stock options (years)	4.11	2.09

Unvested options to employees as at June 30, 2021 were recognized prorata temporis over the service period (grant date to vesting date).

The following table illustrates the development of the Group's non-vested options during the 6 months ended June 30, 2021.

Non-vested options	Number of WIHN Class B Shares under options	Weighted-average grant date fair value (USD)
Non-vested options as at December 31, 2019	5,026	3.65
Granted	467,617	1.08
Vested	(339,310)	1.01
Non-vested forfeited or cancelled	-	-
Non-vested options as at December 31, 2020	133,333	1.20
Granted	33,896	1.43
Vested	(33,896)	1.43
Non-vested forfeited or cancelled	(100,000)	0.05
Non-vested options as at June 30, 2021	33,333	1.68

As at June 30, 2021, there was a USD 19,463 unrecognized compensation expense related to non-vested stock option-based compensation arrangements. Non-vested stock options outstanding as at June 30, 2021 were accounted for using the graded-vesting method, as permitted under ASC 718-10-35-8, and we therefore recognized compensation costs calculated using the Black-Scholes model and the market price of WIHN class B shares at grant date, over the requisite service period.

The following table summarizes the Group's stock option activity for the six months ended June 30, 2021.

			Weighted average	
	WIHN Class B	Weighted-average	remaining	Aggregate intrinsic
	Shares under	exercise price	contractual term	value
Options on WIHN Shares	options	(USD)	(in years)	(USD)
Outstanding as at December 31, 2019	2,843,115	0.99	5.19	3,693,941
Of which vested	2,838,089	1.00	5.19	3,682,672
Of which non-vested	5,026	-	-	
Granted	467,617	1.48	-	-
Exercised or converted	(1,214,402)	1.57	-	2,046,219
Forfeited or cancelled	-	-	-	-
Expired	-	-	-	-
Outstanding as at December 31, 2020	2,096,330	1.48	4.44	554,377
Of which vested	1,962,997	1.57	4.31	329,716
Of which non-vested	133,333	-	-	
Granted	33,896	1.28	-	-
Exercised or converted	(37,018)	1.30	-	46,013
Forfeited or cancelled	(100,000)	0.05	-	-
Expired	(104,000)	5.20	-	-
Outstanding as at June 30, 2021	1,889,208	1.28	4.08	1,690,021
Of which vested	1,855,875	1.30	4.06	1,648,588
Of which non-vested	33,333	-	-	

Summary of stock-based compensation expenses

Stock-based compensation expenses	6 months ended June 30,		
USD'000	2021	2020	
In relation to Employee Stock Option Plans (ESOP)	36	171	
In relation to non-ESOP Option Agreements	10	-	
Total	46	171	

Stock-based compensation expenses are recorded under the following expense categories in the income statement.

Stock-based compensation expenses	o months ended Jul	ie 30,
USD'000	2021	2020
Research & development expenses	-	2
Selling & marketing expenses	(2)	146
General & administrative expenses	48	23
Total	46	171

Note 32. Non-operating income

Non-operating income consisted of the following:

Unaudited 6 months ended June 30,

USD'000	2021	2020
Foreign ex change gain	1,265	223
Financial income	-	7
Interest income	5	8
Other	5,667	38
Total non-operating income	6,937	276

In line with ASC 320-10-40-2, upon acquiring arago on February 1, 2021 (see Note 14), the unrealized gain of CHF 6,546,964 (USD 7,349,602 at historical rate) from the fair value adjustments of the arago Third Convertible Loan recorded in other comprehensive income up to the date of acquisition was reversed into other non-operating income (see Note 10). Additionally, the CHF 1.6 million (USD 1,796,155 at historical rate) cash paid for the acquisition of arago after the acquisition date was recorded as a deduction to other non-operating income because this amount was already included in the fair value of the arago Third Convertible Loan.

Note 33. Non-operating expenses

Non-operating expenses consisted of the following:

Unaudited 6 months ended June 30,

USD'000	2021	2020
Foreign exchange losses	494	751
Financial charges	117	32
Interest expense	517	344
Other components of defined benefit plans, net	65	66
Other	246	457
Total non-operating expenses from continuing operations	1,439	1,650

Non-operating expenses – Other include a USD 240,029 expense for the fair value adjustment as at June 30, 2021 of the investment in OpenLimit (see Note 20).

Note 34. Segment information and geographic data

The Group has three segments: Internet of Things ("IoT", previously referred to as "Semiconductors"), Artificial Intelligence ("AI") arising from the acquisition of arago on February 1, 2021, and managed Public Key Infrastructure ("mPKI", previously referred to as "Others"). The Group's chief operating decision maker, who is its Chief Executive Officer, reviews financial performance according to these three segments (two in prior periods) for purposes of allocating resources and assessing budgets and performance.

The IoT segment encompasses the design, manufacturing, sales and distribution of microprocessors operations. The AI segment encompasses the development, design, implementation and customization of knowledge automation technology and processes, using AI. The mPKI segment includes all operations relating to the provision of secured access keys, authentication, signing software, certificates and digital security applications.

	6 months ended June 30, 2021		6 month	s ended June 30,	2020		
USD'000	IoT	mPKI	Al	Total	loT	mPKI	Total
Revenues from external customers	7,200	602	2,142	9,945	7,825	199	8,024
Intersegment revenues	128	1,365	-	1,492	-	3,662	3,662
Interest revenue	1	50	-	50	7	8	15
Interest expense	28	236	229	494	6	353	358
Depreciation and amortization	293	274	17	584	688	44	732
Segment income /(loss) before income taxes	(1,930)	(626)	(3,341)	(5,897)	238	(8,947)	(8,709)
Profit / (loss) from intersegment sales	6	65	-	71	-	174	174
Income tax recovery /(expense)	-	56	-	56	-	(2)	(2)
Other significant non cash items							
Share-based compensation expense	-	46	-	46	-	154	154
Gain on derivative liability	-	-	-	-	_	44	44
Interest and amortization of debt discount and expense	-	223	_	223	-	239	239
Segment assets	11,282	105,405	14,299	130,985	13,049	30,673	43,722
6 months ended June 30,	2021	2020					
Revenue reconciliation	USD'000	USD'000					
Total revenue for reportable segment	11,437	11,686					
Elimination of intersegment revenue	(1,492)	(3,662)					
Total consolidated revenue	9,945	8,024					
Loss reconciliation	USD'000	USD'000					
Total profit / (loss) from reportable segments	(5,897)	(8,709)					
Elimination of intersegment profits	(71)	(174)					
Loss before income taxes	(6,164)	(8,883)					
As at June 30,							
Assets	USD'000	USD'000					
Total assets from reportable segments	130,985	43,722					
Elimination of intersegment receivables	(10,916)	(7,769)					
Elimination of intersegment investment and goodwill	(24, 195)	10,531					
Consolidated total assets	95,874	46,484					

Revenue and property, plant and equipment by geography

The following tables summarize geographic information for net sales based on the billing address of the customer, and for property, plant and equipment.

Net sales by region	6 months ended Jur	6 months ended June 30,		
USD'000	2021	2020		
Switzerland	1,039	143		
Rest of EMEA*	3,632	2,822		
North America	4,712	4,302		
Asia Pacific	516	716		
Latin America	46	41		
Total net sales	9,945	8,024		

^{*} EM EA means Europe, Middle East and Africa

Property, plant and equipment, net of depreciation, by region	As at June 30,	As at December 31,
USD'000	2021	2020
Switzerland	25	37
Rest of EMEA*	718	953
North America	1	1
Asia Pacific	7	9
Total Property, plant and equipment, net of depreciation	751	1,000

^{*} EM EA means Europe, Middle East and Africa

Note 35. Earnings/(Loss) per share

The computation of basic and diluted net earnings/(loss) per share for the Group is as follows:

	•• •• •• ••	
Gain / (loss) per share	2021	2020
Net gain / (loss) attributable to WISeKey International Holding AG (USD'000)	(4,341)	(8,698)
Shares used in net gain / (loss) per share computation:		
Weighted average shares outstanding - basic	63,559,699	39,137,480
Effect of potentially dilutive equivalent shares	n/a	n/a
Weighted average shares outstanding - diluted	n/a	n/a
Net gain / (loss) per share		
Basic weighted average loss per share attributable to WIHN (USD)	(0.07)	(0.22)
Diluted weighted average loss per share attributable to WIHN (USD)	(0.07)	(0.22)

6 months ended June 30,

For the six months ended June 30, 2021, for purposes of the diluted net loss per share calculation, stock options, convertible instruments and warrants are considered potentially dilutive securities and are excluded from the calculation of diluted net loss per share, because their effect would be anti-dilutive. Therefore, basic and diluted net loss per share was the same for the six months ended June 30, 2021 due to the Group's net loss position.

Note 36. Legal proceedings

We are currently not party to any legal proceedings and claims.

Note 37. Related parties disclosure

Subsidiaries

The consolidated financial statements of the Group include the entities listed in the following table:

Group Company Name	Company Name Country of Year of Share Capital incorporation		% ownership as at June 30, 2021	% ownership as at December 31, 2020	Nature of business		
WISeKey SA	Switzerland	1999	CHF	933,436	95.75%	95.75%	Main operating company. Sales and R&D services
WISeKey Semiconductors SAS	France	2010	EUR	1,298,162	100.0%	100.0%	Chip manufacturing, sales & distribution
WiseTrust SA	Switzerland	1999	CHF	680,000	100.0%	100.0%	Non-operating investment company
WISeKey ELA SL	Spain	2006	EUR	4,000,000	100.0%	100.0%	Sales & support
WISeKey SAARC Ltd	U.K.	2016	GBP	100,000	51.0%	51.0%	Non trading
WISeKey USA Inc*	U.S.A	2006	USD	6,500	100%*	100%*	Sales & support
WISeKey India Private Ltd**	India	2016	INR	1,000,000	45.9%	45.9%	Sales & support
WISeKey loT Japan KK	Japan	2017	JPY	1,000,000	100.0%	100.0%	Sales & distribution
WISeKey loT Taiwan	Taiwan	2017	TWD	100,000	100.0%	100.0%	Sales & distribution
WISeCoin AG	Switzerland	2018	CHF	100,000	90.0%	90.0%	Sales & distribution
WISeKey Equities AG	Switzerland	2018	CHF	100,000	100.0%	100.0%	Financing, Sales & distribution
WISeKey Semiconductors GmbH	Germany	2019	EUR	25,000	100.0%	100.0%	Sales & distribution
WISeKey Arabia - Information Technology Ltd	Saudi Arabia	2019	SAR	200,000.00	51.0%	51.0%	Sales & distribution
TrusteCoin AG***	Switzerland	2020	CHF	100,000	51.0%	51.0%	Sales & distribution
arago GmbH	Germany	1995	EUR	266,808	51.0%	n/a	Process automation using Al, sales and support
arago Da Vinci GmbH****	Germany	2007	EUR	25,000	51.0%	n/a	Sales & support
arago Technology Solutions Private Limited****	' India	2017	INR	100,000	51.0%	n/a	Sales & support
arago US Inc.****	U.S.A	2015	USD	25	51.0%	n/a	Sales & support
Trust Protocol Association	Switzerland	2019	CHF	-	100.0%	n/a	Internet security

^{* 50%} owned by WISeKey SA and 50% owned by WiseTrust SA

Related party transactions and balances

	Receivables as at		Payable	Payables as at		Net expenses to		Net income from	
Related Parties	June 30,	December 31,	June 30,	December 31,	in the 6 months ended June 30,		in the 6 months ended June 30,		
(in USD'000)	2021	2020	2021	2020	2021	2020	2021	2020	
1 Carlos Moreira	73	-		1,580	-	-	-	-	
2 Philippe Doubre	-	-	-	-	31	20	-	-	
3 Juan Hernández Zayas	-	-	-	-	-	28	-	-	
4 Dourgam Kummer	-	14	-	-	-	-	-	-	
5 David Fergusson	-	-	-	-	45	28	-	-	
6 Eric Pellaton	-	-	-	-	24	2	-	-	
7 Jean-Philippe Ladisa	-	-	1	-	42	2	-	-	
8 Hans-Christian Boos	-	-	2,427	-	58	-	-	-	
9 Wei Wang	-	-	-	-	-	-	-	10	
10 OISTE	105	95	221	172	176	166	15	7	
11 Terra Ventures Inc	-	-	34	33	-	-	-	-	
12 SAI LLC (SBT Ventures)	-	-	35	34	-	-	-	-	
13 GSP Holdings Ltd	-	-	17	18	-	-	-	-	
14 Related parties of Carlos Moreira	-	-	-	-	89	91	-	-	
Total	178	109	2,735	1,837	466	337	15	17	

- 1. Carlos Moreira is the Chairman of the Board and CEO of WISeKey. As at June 30, 2021, the receivable balance from Mr. Moreira consisted of an advance of CHF 67,672 (USD 73,144) in relation to the outstanding employee social charges and tax deducted at source for the exercise of his ESOP options (see Note 9). This advance is expected to be settled by December 31, 2021.
- 2. Philippe Doubre is a Board member of the Group, and member of the Group's nomination & compensation committee, as well as a shareholder. The expenses recorded in the income statement in the period to June 30, 2021 relate to his Board fee.
- 3. Juan Hernandez-Zayas is a former Board member of the Group, and former member of the Group's audit committee and the strategy committee, as well as a shareholder. Mr. Hernandez-Zayas did not seek reelection at the Group's last Annual General Meeting on May 15, 2020.
- 4. Dourgam Kummer is a former Board member of the Group.
- 5. David Fergusson is a Board member of the Group, and member of the Group's audit committee and nomination & compensation committee, as well as a shareholder. The expenses recorded in the income statement in the period to June 30, 2021 relate to his Board fee.

 $^{^{\}star\star}$ 88% owned by WISeKey SAARC which is controlled by WISeKey International Holding AG

^{***}Formerly WiseAl AG, 100% owned by arago GmbH from June 23, 2021

^{**** 100%} owned by arago GmbH

- 6. Eric Pellaton is a Board member of the Group, and member of the Group's nomination & compensation committee, as well as a shareholder. The expenses recorded in the income statement in the period to June 30, 2021 relate to his Board fee.
- 7. Jean-Philippe Ladisa is a Board member of the Group, and member of the Group's audit committee. The expenses recorded in the income statement in the period to June 30, 2021, relate to his Board fee.
- 8. Hans Christian Boos is the managing director of arago GmbH and a minority shareholder of arago GmbH through two personal companies. One of his wholly-owned personal companies, Aquilon Invest GmbH entered into a loan agreement with arago GmbH for an amount of EUR 1,918,047.09 (see Note 24). As at June 30. 2021, the balance of the loan and accrued interests due by arago GmbH to Hans- Christian Boos as ultimate beneficiary was EUR 2,047,485 (USD 2,426,562). In the six months to June 30, 2021, an interest charge of EUR 47,973 (USD 57,818) was recorded in the income statement.
- 9. Wei Wang is a former member of the Group's advisory committee.
- 10. The Organisation Internationale pour la Sécurité des Transactions Electroniques ("OISTE") is a Swiss non-profit making foundation that owns a cryptographic rootkey. In 2001 WISeKey SA entered into a contract with OISTE to operate and maintain the global trust infrastructures of OISTE. In line with the contract, WISeKey pays a regular fee to OISTE for the use of its cryptographic rootkey. A member of the Board of Directors of WISeKey is also a member of the Counsel of the Foundation which gives rise to the related party situation.

OISTE is also the minority shareholder in WISeCoin AG with a 10% ownership.

The receivable from OISTE as at June 30, 2021 and income recorded in the income statement in the period to June 30, 2021 relate to the facilities and personnel hosted by WISeKey SA on behalf of OISTE. In the year 2021, WISeKey SA invoiced OISTE CHF 13,750 (USD 15,145).

The payable to OISTE as at June, 2021 and expenses relating to OISTE recognized in 2021 are made up of license and royalty fees for the year 2021 under the contract agreement with WISeKey SA.

- 11. Terra Ventures Inc has a 49% shareholding in WISeKey SAARC Ltd. Terra Ventures granted a GBP 24,507 loan to WISeKey SAARC Ltd on January 24, 2017. The loan is non-interest bearing and has no set repayment date.
- 12. SAI LLC, doing business as SBT Ventures, is a former shareholder in WISeKey SAARC Ltd. SAI LLC granted a GBP 25,000 loan to WISeKey SAARC Ltd on January 25, 2017. The loan is non-interest bearing and has no set repayment date.
- 13. GSP Holdings Ltd is a former shareholder in WISeKey SAARC Ltd. GSP Holdings Ltd granted a GBP 12,500 loan to WISeKey SAARC Ltd on February 02, 2017. The loan is non-interest bearing and has no set repayment date.
- 14. Two immediate family members of Carlos Moreira are employed by WISeKey SA. In line with ASC 850-10-50-5, transactions involving related parties cannot be presumed to be carried out on an arm's-length basis. The aggregate employment remuneration of these two immediate family members amounted to USD 89,361 recorded in the income statement in the six months to June 30, 2021.

Note 38. Subsequent events

GTO Facility

On July 29, 2021, GTO issued two conversion notices resulting in the delivery of 49,586 WIHN class B shares on August 2, 2021 for a conversion of CHF 60,000 (USD 66,298).

Following these conversions, the GTO Facility was fully utilized with no unconverted amount.

L1 Facility

After June 30, 2021, L1 issued a total of sixteen conversion notices, resulting in the aggregated conversion of USD 6,800,000 and the delivery of 5,396,321 WIHN class B shares.

Anson Facility

After June 30, 2021, Anson issued a total of nine conversion notices, resulting in the aggregated conversion of USD 6,500,000 and the delivery of 5,156,945 WIHN class B shares.

Options granted under WISeKev ESOP

After June 30, 2021, a total of 15,243 options were granted under the Group's ESOP.

Acquisition of arago GmbH

After the acquisition of 51% of arago GmbH, the Group invested another USD 5,727,697 in the arago Group to research the application of arago's Al knowledge automation services to WISeKey's portfolio of products and services, and to better align arago's structure to its core operations.

Note 39. Business Update Related to COVID-19

In March 2020, the World Health Organization declared the Coronavirus (COVID-19) a pandemic. The outbreak spread quickly around the world, including in every geography in which the Company operates. The pandemic has created uncertainty around the impact of the global economy and has resulted in impacts to the financial markets and asset values. Governments implemented various restrictions around the world, including closure of non-essential businesses, travel, shelter-in-place requirements for citizens and other restrictions.

The Company took a number of precautionary steps to safeguard its businesses and colleagues from COVID-19, including implementing travel restrictions, working from home arrangements and flexible work policies. Through the end of the first half of the year, the majority of the Company's colleagues continued working either fully or partially in a remote work environment, with virtually no disruption to the Company as a whole and its ability to serve clients. The Company started to return to offices around the world, in line with the guidelines and orders issued by national, state and local governments, implementing a phased approach in its main offices in Switzerland and in France. We continue to prioritize the safety and well-being of our colleagues during this time.

The Company's major production centers, located in Taiwan and Vietnam, were quick to implement controls and safeguards around their processes that enabled us to continue delivering products with minimal interruption to our clients. At the end of the second quarter, we started to see the first impact of the pandemic upon our activities with certain clients reducing or delaying their orders. At this stage, the impact upon the Company has been limited and we remain confident that we will be able to fulfil all current client orders.

The Company retains a strong liquidity position and believes that it has sufficient cash reserves to support the entity for the foreseeable future (see Note 2 for further details.) The Company continues to review its costs and suspended its share buy-back programs in order to reduce the cash burn. The Company has applied for, and received, support under the schemes announced by the Swiss government and is applying for similar support under the schemes announced by the French government. Currently the Company remains able to meet its commitments and does not foresee any significant challenges in the near future. The Company currently does not anticipate any material impact on its liquidity position and outlook.

At this stage it remains impossible to predict the extent of the impact of the COVID-19 pandemic as this will depend on numerous evolving factors and future developments that the Company is not able to predict.