General

[1] Basis of Presentation

Software AG's consolidated financial statements are prepared in accordance with the International Accounting Standards Board (IASB), International Financial Reporting Standards (IFRS), as applicable in the European Union (EU) and in accordance with the additional provisions required under German commercial law as set forth in section 315e (1) of the German Commercial Code (HGB). The IFRS applicable as of December 31, 2020 were observed, as were the corresponding interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

Software AG is a registered stock corporation under German law with registered offices in Darmstadt (Uhlandstraße 12, 64297 Darmstadt, Germany). It is listed in the commercial register of the Darmstadt District Court under number HRB 1562. It is the principal parent company of a Group that is globally active in the fields of software development, licensing and maintenance as well as IT services. The functional currency of Software AG is the euro.

Software AG's Management Board prepared the consolidated financial statements on March 5, 2021. Software AG's Audit Committee will discuss the consolidated financial statements in its meeting on March 15, 2021. The Supervisory Board will approve the consolidated financial statements in its meeting on March 15, 2021.

The consolidated financial statements of Software AG are expressed in thousands of euros unless otherwise stated. The figures presented in the report were rounded according to customary business practice. In some cases, rounding could mean that values in this report do not add up to the exact sum given or percentages do not equal the values presented.

The separate financial statements of the companies of the consolidated Group were prepared on the date of the consolidated financial statements.

[2] Scope of Consolidation

The consolidated financial statements include Software AG and all of the entities it controls. Control exists when Software AG can exercise power of control over the entity, is impacted by fluctuating returns on its share in the entity and can influence the amount of the returns.

The following affiliated entities are part of the Group of Software AG (parent company):

a) Domestic entities	Ownership interest %	Equity[1] Dec. 31, 2020 in € thousands	Earnings[1] 2020 in € thousands
SAG Deutschland GmbH, Darmstadt, Germany and its foreign subsidiaries	100	41,350	19,029
• Alfabet Saudi Arabia LLC, Riyadh, Saudi Arabia	95	–918	–798
in which Software AG (Gulf) S.P.C. also has a direct stake	5		
SAG Consulting Services GmbH, Darmstadt, Germany	100	94	158
SAG LVG mbh, Darmstadt, Germany	100	959	0
FACT Unternehmensberatung GmbH, Darmstadt, Germany and its subsidiary	100	940	387
• FACT Informationssysteme und Consulting AG, Neuss, Germany	55	1,637	888
itCampus Software- und Systemhaus GmbH, Leipzig, Germany	100	429	374
SAG Cloud GmbH, Darmstadt, Germany and its subsidiaries	100	388	23
• Software AG Cloud Americas, Inc., Wilmington (New Castle), USA	100	294	60
• Software AG CLOUD APJ PTY LTD, North Sydney, Australia	100	13	0
Cumulocity GmbH, Düsseldorf, Germany	100	11,158	7,504

b) Foreign entities	Ownership interest %	Equity[1] Dec. 31, 2020 in € thousands	Earnings[1] 2020 in € thousands
Software A.G. Argentina S.R.L., Buenos Aires, Argentina	95	3,849	1,625
in which SAG Deutschland GmbH also has a direct stake	5		
Software AG Sydney PTY LTD, North Sydney, Australia	100 inactive	0	0
Software AG (Gulf) S.P.C., Manama, Bahrain and its subsidiary	100	5,924	–719
• Software AG International FZ-LLC, Dubai, United Arab Emirates	100	4,076	1,631
TrendMiner NV, Hasselt, Belgium and its subsidiaries	100	–1,631	–1,332
• TrendMiner B.V., BL Breda, Netherlands	100	–1,745	–856
• TrendMiner GmbH, Cologne, Germany	100	–168	–391
• TrendMiner Inc., Houston, Texas, USA	100	–3,316	–1,402
IDS Scheer Sistemas de Processamento de Dados, São Paulo, Brazil	100	36	0
Software AG Development Center Bulgaria EOOD, Sofia, Bulgaria	100	2,488	413
Software AG China Ltd., Shanghai, China	100	–6,089	–673
Software AG (Hong Kong) Limited, Hong Kong, China	100	–3,194	–554
Software AG Denmark A/S, Hvidovre, Denmarkand its subsidiary	100	6,514	777
• Software AG Nordic A/S, Oslo, Norway	100 inactive	17	–4
Software AG Finland Oy, Helsinki, Finland	100	1,726	213
Software AG France S.A.S, Paris La Défense Cedex, France	100	26,182	4,179
Software AG (U.K.) Limited, Derby, U.K. and its subsidiaries	100	35,916	17,424
• Software AG Belgium S.A., Watermael-Boitsfort, Belgium	76	6,927	523
in which Software AG also has a direct stake	24		
• PCB Systems Limited, Derby, U.K.	100 inactive	2,011	0
• SAG SALES CENTRE IRELAND LIMITED, Dublin, Ireland	100	443	31
SGML Technologies Limited, Derby, U.K.	100 inactive	1,957	0
Software AG India Sales Private Ltd, Bangalore, Karnataka, India	100	3,482	501
Software AG (India) Private Limited, Bangalore, India	100	13	0
PT SoftwareAG Indonesia Operations, Jakarta, Indonesia	99	1,627	523
in which SAG Deutschland GmbH also has a direct stake	1		
S.P.L. Software Ltd, OR-Yehuda, Israel and its subsidiary	100	62,902	5,369
• Software A.G. (Israel) Ltd, OR-Yehuda, Israel	100	22,729	826
Software AG Italia S.p.A, Milan, Italy	100	463	–2,698
SAG Software AG Luxembourg S.A., Capellen, Luxembourg	100	687	187
Software AG Nederland B.V., Den Haag, Netherlands	100	15,511	2,846
Software GmbH Österreich, Vienna, Austria	100	9,529	2,712
Software AG (Philippines), Inc., Makati City, Philippines	100	782	140
Software AG Polska Sp. z o.o., Warsaw, Poland	100	5,104	1,999
Limited Liability Company Software AG (RUS), Moscow, Russia	100	1,681	236
Software AG Sweden AB, Kista, Sweden	100	938	–2,035
SAG Software Systems AG, Zurich, Switzerland	100	2,937	1,860

[1] The figures specified are based on unconsolidated IFRS figures. Equity is translated into euros at the closing rate and earnings at the average exchange rate for the year.

b) Foreign entities	Ownership interest %	Equity[1] Dec. 31, 2020 in € thousands	Earnings[1] 2020 in € thousands
Software AG (Singapore) Pte LTD, Singapore	100	8,369	331
Software AG Development Centre Slovakia s.r.o., Košice, Slovakia	100	579	126
Software AG España, S.A. Unipersonal, Tres Cantos, Madrid, Spain and its subsidiaries	100	69,829	4,671
• Software AG España Consulting SL, Tres Cantos, Madrid, Spain (sold on June 30, 2020)	100	N/A	N/A
• Software AG Brasil Informática e Serviços Ltda, São Paulo, SP, Brazil	100	10,398	–180
• Software AG Factoria S.A., Santiago de Chile, Chile	100	–1	–1
• Software AG De Panamá, S.A., Corregimiento de Pueblo nuevo, Panama and its subsidiary	100	–715	–52
•• Software AG de Costa Rica, S.A., San José, Costa Rica (liquidated on January 22, 2020)	100	N/A	N/A
• Software AG (Portugal) Alta Tecnologia Informática, Ltd., Lisbon, Portugal	97	1,937	331
in which Software AG also has a direct stake	3		
• Software AG De Puerto Rico, Inc., San Juan, Puerto Rico	100	1,019	169
• A. Zancani & Asociados, C.A., Chacao Caracas, Venezuela	100 inactive	0	0
• Software AG Venezuela, C.A., Caracas, Venezuela	100	1	0
Software AG South Africa (Pty) Ltd, Bryanston, South Africa	100	12,240	6,460
Software AG Bilgi Sistemleri Ticaret A.S., Istanbul, Turkey	100	648	–434
Software AG, Inc., Reston, VA, USA and subsidiaries	100	366,944	34,907
• Software AG (Canada) Inc., Kitchener, Ontario, Canada	100	21,694	6,346
• Software AG, S.A. de C.V. (Mexico), Distrito Federal, Mexico	100	2,561	87
• Operadora JackBe, S. de. R.L. de C.V., Mexico City, Mexico	100	428	13
• Software AG USA, Inc., Reston, VA, USA and subsidiaries	100	577,549	81,377
•• Software AG Australia (Holdings) Pty. Ltd., North Sydney, Australia and its subsidiary	100	–18,454	13,613
••• Software AG Australia Pty. Ltd., North Sydney, Australia	100	58,721	4,312
•• Software AG Bangalore Technologies Private Ltd., Derarabisanahalli Bangalore, India	100	13,739	4,845
•• Software AG Chennai Development Center India Pvt Ltd, Chennai, India	100	2,403	412
•• Terracotta Software India Pvt. Ltd., Bangalore, Karnataka, India	100 inactive	117	2
•• Software AG Kochi Pvt. Ltd., Bangalore, Karnataka, India	98	257	8
in which Software AG, Inc. also has a direct stake	2		
•• Software AG Ltd. Japan, Minato-ku, Tokyo, Japan	100	3,016	24
•• Software AG Operations Malaysia Sdn Bhd., Selango, Malaysia	100	1,966	–84
•• Software AG Korea, Ltd., Seoul, South Korea	100	1,363	–385
•• Software AG Distribution LLC, Reston, VA, USA	100	5,283	46,600
•• Software AG Government Solutions, Inc., Herndon, VA, USA	100	32,608	3,972

[1] The figures specified are based on unconsolidated IFRS figures. Equity is translated into euros at the closing rate and earnings at the average exchange rate for the year.

Changes in the consolidated Group

The scope of consolidation changed as compared to December 31, 2019 as follows:

	Germany	Foreign	Total
Dec. 31, 2019	**10**	**67**	**77**
Additions	0	0	0
Disposals (including mergers)	0	–2	–2
Dec. 31, 2020	**10**	**65**	**75**

The disposals resulted from the liquidation of a company in Costa Rica and from the sale of a company in Spain. The change to the scope of consolidation had no significant effect on comparability to last year.

[3] Accounting Policies

Use of estimates

In the preparation of the consolidated financial statements, estimates and assumptions are made for certain items that have an impact on the recognition and measurement of recognized assets, liabilities, income, expenses and contingent liabilities. These estimates and assumptions are based on historical data and are reviewed on an ongoing basis. Actual amounts may differ from the estimates made. The primary areas of application for estimates and assumptions are revenue recognition, subsequent accounting of goodwill and other intangible assets, accounting of share-based remuneration, assessment of legal risks, measurement of pension obligations, measurement of trade receivables, accounting of income tax and deferred tax.

Principles of consolidation

The separate financial statements of the entities included in the consolidated financial statements were prepared in accordance with uniform accounting policies pursuant to IFRS as of the balance sheet date for the consolidated financial statements (December 31, 2020). The initial consolidation method applied to business combinations was based on the respective date of foundation in the case of companies founded by Software AG.

Since the transition to IFRS on January 1, 2003, goodwill previously recognized in line with the Commercial Code has been measured in accordance with IAS 36.

Revenue, expenses and income and receivables and payables arising between consolidated entities have been eliminated. Intercompany earnings are eliminated where they have not arisen from services to third parties. Group equity and net income attributable to minority interests are reported separately from equity and net income attributable to the shareholders of the parent company.

Mergers

All mergers are recognized according to the purchase method. For every transaction, Software AG decides whether it recognizes the non-controlling interest in the acquired company at fair value or based on the corresponding share of identifiable net assets.

Currency translation

Financial statements of foreign subsidiaries are translated in accordance with the functional currency concept using the modified closing rate as set out in IAS 21. Since the subsidiaries operate independently from an organizational, financial, and business stand-point, the respective local currency is identical with the functional currency.

Income and expenses are translated at the relevant monthly average rate, assets and liabilities are translated at the closing rate, and the respective equity of the subsidiaries is translated at historical rates into euros.

Currency translation differences arising from equity consolidation are offset against equity and reported in a separate column in the Statement of Changes in Equity.

In the schedule of changes in property, plant and equipment, the balances at the beginning and the end of the fiscal year are translated at the applicable closing rates, and other items are translated at average rates. Any differences arising from exchange rate fluctuations are reported as currency translation differences as a separate line item under cost and accumulated amortization.

In the separate financial statements of the consolidated entities, foreign currency receivables and payables are translated at the closing rate. Exchange rate gains and losses not yet realized as of the balance sheet date are included in profit or loss for the period, except for translation differences arising from non-current, intercompany monetary items that are part of a net investment in a foreign company. These differences are recognized directly in equity under other reserves.

Software AG considers Venezuela and, since 2018, Argentina as hyperinflationary economies as defined by IAS 29. This had no material impact on the consolidated financial statements.

The exchange rates used for the translation of the most important currencies changed as follows compared to the previous year:

Closing Rate

€1	Dec. 31, 2020	Dec. 31, 2019	Change as %
U.S. dollar	1.2271	1.1234	–9.2
Brazilian real	6.3735	4.5157	–41.1
Pound sterling	0.8990	0.8508	–5.7
Australian dollar	1.5896	1.5995	0.6
Israeli shekel	3.9447	3.8845	–1.5
South African rand	18.0219	15.7773	–14.2
Canadian dollar	1.5633	1.4598	–7.1

Average Rate

€1	Dec. 31, 2020	Dec. 31, 2019	Change as %
U.S. dollar	1.1412	1.1196	–1.9
Brazilian real	5.8898	4.4135	–33.4
Pound sterling	0.8892	0.8773	–1.4
Australian dollar	1.6554	1.6106	–2.8
Israeli shekel	3.9237	3.9908	1.7
South African rand	18.7689	16.1731	–16.1
Canadian dollar	1.5294	1.4857	–2.9

Total revenue

The following accounting policies for recognition of revenue apply:

Categories of sales revenue

Software AG sales revenues consist primarily of revenue from granting software licenses of temporary or indefinite duration, revenue from Software as a Service (SaaS) offerings, maintenance revenue and revenue from services. With respect to SaaS offerings, a customer is not entitled to terminate a hosting agreement or take the software into its own possession, either to operate in its own IT infrastructure or to engage an entity other than Software AG to provide software hosting or management services. These categories of sales revenue also reflect the impact of economic factors on type, amount, date and uncertainty of revenue and cash flows.

The shift from licenses of indefinite duration to time-limited software licenses (subscription resets) is possible, subject to certain conditions. These conditions include the irrevocable surrender of software licenses of indefinite duration, the acquisition of new software licenses and complete transparency of the software license agreement's price structure.

Identification of the contract

A contract is an agreement between two or more parties that establishes enforceable rights and obligations and determines that enforceability is a question of law. Software AG enters written agreements only. An agreement must be signed by both parties within a reporting period to be able to recognize revenue in that period. Revenue resulting from an agreement signed at a later point in time is recognized in the period in which the agreement was signed.

Revenue from an agreement which grants the customer the right to terminate with no resulting materially disadvantageous payments, is only recognized in the period that is not subject to the termination right.

With respect to business with resellers, a contract exists only if the existence of an agreement between the reseller and an end user (end-user agreement) can be verified and all other criteria for revenue recognition are met.

Identification of contractual obligations

Software AG's contracts with customers often include various products and services. The products and services described in the last section, Categories of Sales Revenue, are usually to be treated as separate contractual performance obligations. The relevant portion of the contractual price is recognized separately. The determination as to whether a product or a service is treated as a separate contractual performance obligation nevertheless requires judgment to be exercised.

When customers purchase products or services, Software AG sometimes offers them options for buying additional products or services. Software AG exercises its own judgment when determining whether such options give the customer a substantive right that it wouldn't have without signing this agreement. In making this determination, the Company considers whether the options entitle the customer to a discount that is greater than the discount provided with the relevant products or services sold with the option.

Determination of transaction price

Software AG also exercises judgment when determining the consideration that it expects to receive in exchange for the transfer of products or services to a customer. This includes estimations as to whether and to what extent the customer is entitled to subsequent concessions or payments and whether the customer will pay the contractually agreed consideration as expected. In this exercise of judgment, primarily previous experiences with a specific or a comparable customer are considered. These estimates are reviewed every balance sheet date. Software AG's contracts generally do not contain variable considerations. There may, however, be individual cases when retrospective adjustments are made to the transaction price, which must be recognized as revenue corrections on the date they were made.

Some agreements include significant financing elements. Software AG recognizes financing elements when the period of time between the transfer of purchased products or services to the customer and payment of these products or services by the customer is at least one year.

Division of transaction price

The transaction price is generally divided between the individual contractual performance obligations based on the individual sales prices. Software licenses of indefinite duration are often sold in combination with maintenance and service contracts. In this case, when an agreement involves multiple elements, revenue recognition is based on the individually identifiable performance obligations of the transaction.

Because it is impossible to calculate reliable individual sale prices for software licenses, revenue is divided between the different revenue types using the residual method. Under the residual method, all determinable individual sale prices are deducted from the total transaction value, and the residual amount is distributed among the software licenses using list prices.

Temporary software licenses are often sold in combination with maintenance services. The two performance obligations are usually inextricably linked (subscriptions). The Company exercises its own judgment in dividing up the transaction price. The transaction price for software licenses of indefinite duration is used as the basis for dividing the transaction price. The average term of these subscription agreements is estimated and is currently three years. If time-limited software licenses are sold in combination with services, the transaction price to be allocated to the time-limited software licenses is determined according to the residual method, i.e. the price of the individual services is deducted from the total transaction value.

Recognition of sales revenue

Software AG accounts for revenue from SaaS based on time elapsed during the period in which the relevant services are rendered.

Software license revenues are recognized as of the date on which the customer is granted access to the software and the license period begins when access is granted. Software AG recognizes revenues for these on-premise licenses as of the date on which the customer receives access to and thus control over the software. When deciding whether software offerings grant customers the right to use Software AG's intellectual property and not the right to access its intellectual property, the usefulness of its software for customers—without subsequent updates—is considered.

Maintenance revenues are recognized proportionately over the term of the maintenance contract period.

Revenue resulting from services invoiced on the basis of hours performed is recognized according to services rendered by a Software AG entity. Revenues and expenses from fixed-price service contracts are recognized in accordance with the percentage-of-completion (POC) method if Software AG's service generates an asset that does not provide Software AG with any alternative options for use and Software AG is legally entitled to payment for services already rendered. Should Software AG's service from a fixed-price contract generate or improve an asset and should the customer have control over the asset, the PoC method is also used for revenue recognition. The stage of completion of a contract is calculated on the basis of the proportion of contract costs incurred for work performed as of the balance sheet date to the estimated total contract costs. Some of the costs for making this calculation are estimated using the number of consulting hours/consulting days charged.

Software AG's contracts generally do not contain withdrawal, reimbursement or other similar obligations.

Incremental costs when acquiring new orders

The assets that Software AG capitalizes as costs associated with acquiring a new customer order consist primarily of Sales employee commissions. The assets are amortized over the expected contract term using the straight-line method. Amortization periods range from 2.5 to 4.5 years. The amortization of capitalized costs for the acquisition of new orders is included in sales and marketing expenses.

Software AG recognizes incremental costs for acquiring new orders as expenses as of the date on which they are incurred when the amortization period is not assumed to be longer than one year.

Cost of sales

Cost of sales includes all production-related full costs based on normal capacity utilization. In particular, the cost of sales includes the individual unit costs that can be directly allocated to orders as well as fixed and variable overheads.

Research and development expenses

Research and development expenses are recognized in the income statement as incurred.

New products are not technologically realizable until shortly prior to being ready for market launch. In the run-up to technological realizability, research and development processes are closely linked. Any research and development expenses incurred after technological realizability has been achieved are immaterial.

Sales, marketing and distribution expenses

Sales, marketing and distribution expenses include costs for personnel, materials, write-downs allocated to the sales cost center and marketing and advertising costs.

General and administrative expenses

General and administrative expenses include costs for personnel, materials and write-downs allocated to the administration cost center.

Government grants

Government grants are not recognized until there is reasonable assurance that the conditions attaching to them will be complied with and that the grant will be received by Software AG. This is normally the case upon receipt of payment. Government grants are reported under other income.

If loans from the government are granted at an interest rate below the market rate, the interest-rate advantage is valued as the difference between the original carrying amount of loan, calculated in accordance with IRFS 9, and the payments received. The interest-rate advantage is reported under other income, as soon as all conditions for receiving government grants have been met.

Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are capitalized as part of the cost of the asset. Other borrowing costs are recognized as an expense for the period in which they were incurred. No borrowing costs were capitalized in fiscal 2020 or 2019.

Share-based payment

In accordance with IFRS 2, share-based payment transactions are generally divided into cash-settled and equity-settled transactions. Both types of payment transactions are measured at their fair value as of the grant date The value is then recognized over the vesting period as remuneration expenses. Rights granted under cash-settled share-based payment transactions are remeasured at fair value on each reporting date until settlement. There are currently no rights with the option of equity settlement.

If Software AG has a choice of settling either in cash or by providing equity instruments (shares), the right granted is accounted for as an equity-settled transaction, unless there is a present obligation to settle in cash.

Non-derivative financial assets

Software AG recognizes non-derivative financial assets as of the date it acquires the contractual right to receive cash or other financial assets from another entity. Standard purchases and sales are measured at fair value as of the value date.

Subsequent measurement is carried out based on the following categories of financial assets:

a) amortized cost (AC)

b) fair value through profit or loss (FVPL)

c) fair value through other comprehensive income (FVOCI)

Software AG classified its balance of equity securities at fair value through other comprehensive income. Software AG generally uses the option that allows it to classify each new equity security individually as fair value through comprehensive income or fair value through profit or loss.

Trade receivables

Trade receivables are classified based on the business model (hold-to-collect versus hold-to-sell). Receivables which are not intended for sale and/or sale is not an option are measured at amortized cost. Receivables categorized as hold to collect and sell are recognized at fair value through other comprehensive income provided deviations from recognition at amortized cost are material. If the deviations are immaterial, receivables categorized as hold to collect and sell are also allocated to financial assets measured at amortized cost.

Software AG applies a simplified impairment model based on an impairment matrix. This impairment matrix is based primarily on historical data on credit losses and current data on receivables overdue.

Furthermore, outstanding receivables are monitored on an ongoing basis at local and central levels to determine if the relevant receivables show any objective indications of jeopardized creditworthiness. If, using this approach, Software AG arrives at the assumption that realization of a receivable is improbable, the receivables above the values in the impairment matrix are written down in part or in whole.

Derivative financial instruments

If the derivative financial instruments are financial assets or financial liabilities in accordance with IAS 32, they are recognized at fair value. Instruments for which hedge accounting is not applied are classified as fair value through profit or loss. Changes in the fair value of the instruments are recognized directly in profit or loss.

If the criteria for hedge accounting in accordance with IFRS 9 are met, the derivative financial instrument is designated as a hedging instrument and accounted for pursuant to the hedge accounting provisions of IFRS 9.

Accordingly, in the case of cash flow hedges, the effective portion of changes in the fair value of derivatives is recognized directly in equity. The ineffective portion is recognized directly in profit or loss. Cumulative amounts previously recognized in equity are reclassified to the income statement for the fiscal years in which the hedged item affects profit or loss.

The Company did not recognize any fair value hedges.

Derecognition of financial assets

A financial asset (including trade receivables) is derecognized if any of the following criteria is met:

- The contractual rights to receive cash flows from the financial asset have expired.
- Software AG has transferred its contractual rights to receive cash flows from the financial asset to a third party or has assumed a contractual obligation to pay the cash flows immediately to a third party in connection with a “pass-through arrangement.” Here, essentially all opportunities and risks related to ownership of the financial asset or the power of control over the asset must be transferred.

If Software AG transfers its contractual rights to receiving cash flows from the asset or enters a pass-through arrangement, Software AG evaluates if and to what extent it retains the opportunities and risks related to ownership. As part of the transfer or sale of trade receivables, the assessment of the related opportunities and risks primarily focuses on the credit risk associated with the receivables. If Software AG does not transfer or retain essentially all opportunities and risks associated with ownership of this asset, and does not transfer the power of control over the asset, Software AG continues to recognize the transferred asset according to the scope of its continuing involvement. In this case, Software AG also recognizes an associated liability. The transferred asset and the associated liability are recognized in such a way that accounts for the rights and obligations retained by Software AG.

Non-derivative financial liabilities

In accordance with IFRS 9, Software AG classifies non-derivative financial liabilities at amortized cost or at fair value through profit or loss.

Subsequent measurement of financial liabilities classified as at amortized cost is carried out using the effective interest rate.

Financial liabilities are derecognized when the contractual obligation has been settled, canceled or has expired.

Cash and cash equivalents

Cash and cash equivalents include cash on hand, bank balances and term deposits with maturities of up to three months as well as short-term, highly liquid securities classified as current assets that are readily convertible to known amounts of cash and are only subject to negligible risk of changes in value.

Intangible assets

Intangible assets for which a useful life can be established are measured at cost less any accumulated amortization and impairment losses. The amortization period and method of amortization for key intangible assets are as follows:

	Amortization period in years	Amortization method
Acquired software	5 – 12.5	straight line
Acquired customer base	5 – 17	straight line
Acquired order portfolio	–	in accordance with order completion

Intangible assets with an indefinite useful life are measured at cost less any accumulated impairment losses. Intangible assets with an indefinite useful life are tested for impairment at least once per year. Or, as soon as there is any indication that goodwill might be impaired, an impairment test is carried out.

Goodwill

Goodwill resulting from mergers is recognized at cost. Goodwill is not amortized. Instead, it is tested for impairment at least once per year (as of December 31) and written down to its recoverable amount in case of impairment. Or, as soon as there is any indication that goodwill might be impaired, an impairment test is carried out. Any impairment losses are reported directly in the income statement and cannot be recovered in the following period.

Property, plant and equipment

Property, plant and equipment are carried at cost less any accumulated depreciation. When items of property, plant and equipment are sold or scrapped, the corresponding cost and any accumulated depreciation are derecognized, and any gains or losses from disposal are recognized in the Consolidated Income Statement.

The cost of items of property, plant and equipment consists of the purchase price, including any import duties and non-refundable purchase taxes and any directly attributable costs required to prepare the asset for operation in its intended use. Any subsequent expenditure, such as service or maintenance charges arising once the asset has been put into operation, is recognized as an expense in the period in which it is incurred. Subsequent expenditures relating to an item of property, plant and equipment are only capitalized if the expenditure improves the condition of the asset beyond its originally assessed standard of performance.

Items of property, plant and equipment are generally depreciated using the straight-line method in accordance with their useful economic lives.

	Years
Buildings	25 – 50 years
Improvements to buildings/leasehold	5 – 15 years
Operating and office equipment	3 – 13 years
Computer hardware and accessories	1 – 7 years

Right-of-use assets are written down either over the term of useful economic life or the term of the lease—whichever is shorter. The terms of useful economic life and methods of depreciation are reviewed on a regular basis to ensure that they are in accordance with the expected pattern of economic benefits of the asset in question.

Assets under construction are recognized at cost. Depreciation on these items begins only after they have been put into operation.

Impairment of intangible assets and property, plant and equipment

As soon as there is any indication that an intangible asset with an indefinite useful life or an item of property, plant and equipment might be impaired, an impairment test is carried out and, if an impairment loss is ascertained, the carrying amount of the asset is written down to its lower recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use. The value in use is the present value of estimated future cash flows expected to arise from the continued use of the asset and from its disposal at the end of its useful life. Impairment losses are reversed provided the reasons for a previously scheduled impairment no longer exist.

Impairment losses are reported under costs of the relevant functional area or under other expenses.

Investment property

Property is recognized as an investment property when it is for the purpose of generating rent income and/or value appreciation. Like property, plant and equipment, investment property is measured in accordance with the cost model: at cost or cost of sales, less depreciation and, if relevant, the necessary impairments. The owned investment property is generally depreciated—like other property, plant and equipment—on a straight-line basis over 25 to 50 years.

Leases

Leases are agreements whereby the lessor transfers the right to use an identified asset to the lessee for a defined period of time and in exchange for payment of a fee.

As of January 1, 2019, Software AG as lessee began recognizing right-of-use assets for leased objects and liabilities for the assumed payment obligations in the amount of the present value of future lease payments.

As of the beginning of use, Software AG recognizes all leases as right-of-use assets and lease liabilities in the balance sheet in the amount of the present value of the future lease payments.

Lease payments are all fixed payments less future incentive payments by the lessor.

The following additional types of payments are recognized:

- variable payments that are coupled to a rate or index
- expected payments from residual value guarantees
- payments to exercise secure buy or terminate options
- contractual penalty payments for termination of a lease if the assumed lease term provides for the exercise of a termination option

The series of payments is discounted at an incremental borrowing rate appropriate to the lease, since the implicit interest rate of the lease is not usually known. All other variable payments are recognized as expenses.

When determining lease length, consideration is given to any facts and circumstances that offer an economic incentive to exercising existing options. The assumed term thus includes periods covered by extension options if sufficient certainty exists that the option will be exercised. A change to the term is considered if the sufficient certainty of exercise or non-exercise of an existing option changes.

Deferred taxes

Deferred tax assets and liabilities are recognized for temporary differences between the carrying amounts in the tax accounts (tax base) and the carrying amounts in the Consolidated Balance Sheet. Deferred tax assets also include claims for tax reductions resulting from the anticipated use of tax loss carryforwards in subsequent years, the realization of which is deemed probable.

Deferred taxes are calculated on the basis of tax rates anticipated to apply in the relevant countries in accordance with the legal situation prevailing at the time of realization (reversal of tax deferrals).

Deferred tax assets and liabilities are not discounted. The carrying amounts of the recognized assets and liabilities are regularly examined and adjusted if necessary.

Other provisions

Other provisions are reported when the Company has a current legal or constructive obligation towards a third party due to a past event that is likely to result in a future outflow of resources and for which the amount of the obligation can be reliably estimated. Estimates are regularly reviewed and adjusted.

If the effect of discounting is significant, the provision is recognized in the amount of the present value of the expected future cash flows.

Provisions for pensions and similar obligations

The present value of pension obligations for defined benefit plans and the associated expenses are determined using actuarial principles in accordance with the projected unit credit method set out in IAS 19 (revised in 2011, IAS 19R). This approach takes into account anticipated future increases in pensions and salaries in addition to the pensions known as of the balance sheet date.

Pension provisions are reported at the full present value of the defined obligation, less the fair value of the reinsurance cover taken out for life insurance policies—provided they are pledged and thus protected from access by other creditors—or less the fair value of the plan assets accumulated to cover pension entitlements. The result of the recalculated net obligation are recognized as other comprehensive income in the Statement of Comprehensive Income. It is comprised of actuarial gains and losses, the return on plan assets and changes in the effects of the asset cap less amounts previously recognized as net interest.

Payments for defined contribution pension plans are recognized as expenses in profit or loss for the period provided the employee has met the stated performance target.

Contractual obligations/ deferred income

Deferred income consists of advance payments received from customers for maintenance and Software as a Service (SaaS) services to be rendered in future periods. The deferred item is reversed in profit or loss in the period in which the service is rendered.

Treasury shares

The amount paid for treasury shares, including directly attributable costs, is deducted from shareholders' equity. Treasury shares are reported as a separate item in the equity statement.

New accounting rules to be applied starting in the fiscal year

Software AG applied the amendments to IFRS 3 (Definition of a Business) and to IFRS 9, IAS 39 and IFRS 7 (Interest Rate Benchmark Reform) for the first time as of January 1, 2020. There were also a number of other new standards to be applied for the first time as of January 1, 2020. However, no amendment to a standard to be applied for the first time led to a material impact on Software AG's consolidated financial statements.

Published but not yet applicable accounting rules

The IASB has published various standards, interpretations and amendments to standards that are not yet required to be applied and with regard to which Software AG did not opt for early application to the consolidated financial statements for the year ended December 31, 2020. However, Software AG does not expect these future changes to have a significant impact on its consolidated financial statements.

[4] Discontinued Operations/ Disposal Groups

Groups of assets and liabilities held to sell

Software AG and Babel Tenedora de Participaciones, S.L announced on January 14, 2020 the signing of a merger agreement of Software AG's Software AG España service operations under Babel's direction. Because the sale of Software AG España's service operations was already assumed to be highly probable in December 2019, the assets and liabilities to be sold were reclassified to a disposal group as of December 31, 2019. The corresponding assets and liabilities were measured as of December 31, 2019 in accordance with IFRS 5, not at their carrying amount but at fair value less costs to sell.

The following table shows the disposal group's values as of December 31, 2019:

in € thousands	Carrying amount prior to remeasurement
Trade receivables, contract assets and other receivables	9,362
Other financial assets	64
Other non-financial assets	30
Property, plant and equipment	376
Deferred tax receivables	128
Disposal group assets	**9,960**
Financial liabilities	101
Trade and other payables	2,178
Other non-financial liabilities	2,807
Other provisions	6
Disposal group liabilities	**5,092**
Total disposal group assets less liabilities	**4,868**
Gain/loss from measurement at fair value less costs to sell	–5,165
Disposal group's fair value less costs to sell	**–297**

The transfer of Software AG España's service operations to Babel occurred in summer 2020. Expenses arising from the measurement of the disposal group amounted to €667 thousand (2019: €5,165 thousand) in fiscal 2020, thus totaling €5,832 thousand. These expenses were reported in other expenses (see Note [10]), as in the previous year. All relevant disposal group assets and liabilities were allocated to the Professional Services segment.

Because the fair value (less costs to sell) of the disposal group is immaterial relative to the recoverable amount of the Professional Services segment (smallest cash-generating unit), proportional goodwill was not accounted for in connection with the derecognition of the disposal group.

The following table illustrates the impact of the disposal group on the carrying amount of the Consolidated Balance Sheet and the Consolidated Statement of Cash Flows in fiscal 2020:

in € thousands	Carrying amount	Cash portion in 2020
Total disposal group assets less liabilities upon disposal	7,578	941
Total consideration received less severance to be paid in connection to the disposal	2,335	203
Gain/loss from the disposal before disposal transactions costs	**–5,243**	**–738**
Disposal transaction costs	589	589
Gain/loss from the disposal including disposal transactions costs	**–5,832**	**–1,327**
of which recognized in fiscal 2019	–5,165	
of which recognized in fiscal 2020	–667	

Net sale price receivables outstanding as of December 31, 2020 were reported in the amount of €2,132 thousand in other financial assets and were paid in full in January 2021.