



## ArtSpark Holdings / 3663

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## Executive summary

### Twofold business model sets ArtSpark apart

- ArtSpark is a pure holding company that has under its umbrella operating companies that promote R&D and practical application of primarily graphics technologies and develop two businesses based on proprietary technologies—Creator Support and UI/UX—targeting customers around the world. Celsys, Inc. runs the Creator Support business, through which it offers anime and manga production software CLIP STUDIO PAINT and e-book distribution solutions. Australian subsidiary Candera GmbH and Candera Japan are in charge of the UI/UX business, focused on a solutions business for LCD screens centered on in-vehicle systems using CGI Studio and UI Conductor.
- ArtSpark has two business segments: Creator Support business (B2C/B2B business) belonging to Celsys and UI/UX business (B2B business) to Candera. In each of these businesses, the company is making a strong push to build a proprietary IP-centered business. In March 2021, the company sold HI Corp (a wholly owned subsidiary of Candera Japan), which was mainly engaged in custom development in the UI/UX business, to micware Co., Ltd. In FY12/19, the Creator Support business brought in 66.9% of overall sales, and UI/UX business the remaining 33.1% (operating profit, 270.2% and -170.2% respectively). ArtSpark aims to strengthen existing businesses and create new ones by combining the technologies and customer base of Celsys (applications) and Candera (UI/UX) which both excel in their individual fields.
- The company's main business strategies are global expansion and further improvements for CLIP STUDIO PAINT series, and product improvement and enhanced marketing for HMI (scalable and not reliant on hardware) and GUI design software CGI Studio, as well as UI authoring software product exbeans UI Conductor (a foundation for HMI [Human Machine Interface]) in the UI/UX business. (See Business description section for details.)

### Performance

- In FY12/20, ArtSpark reported sales of JPY6.4bn (+18.4% YoY), operating profit of JPY773mn (+219.6% YoY), recurring profit of JPY748mn (+224.8% YoY), and a net loss attributable to owners of the parent of JPY475mn (versus net income of JPY241mn in FY12/19). Results were in line with company forecast as upwardly revised on February 8, 2021. In the Creator Support business, demand was firm for the products and solutions, which contributed to firm sales in Japan and overseas.
- The FY12/21 forecast calls for sales of JPY6.7bn (+5.7% YoY), operating profit of JPY922mn (+19.2% YoY), recurring profit of JPY877mn (+17.3% YoY), and net income attributable to owners of the parent of JPY965mn (versus a net loss of JPY475mn in FY12/20). The year-end dividend forecast is JPY12 (JPY10 in FY12/20). In the Creator Support and UI/UX businesses, ArtSpark will continue to focus on developing proprietary software IPs and conduct sales promotion activities. In the Creator Support business, it will continue investing in R&D for CLIP STUDIO with an eye on global rollout, while maintaining its market position and enhancing its new subscription-based billing model, with the aim of improving the continuity and profitability of service. The COVID-19 pandemic has caused significant change in the business environment for the UI/UX business. Although the production of finished automobiles is recovering at some manufacturers, the company expects challenging conditions to continue due to the auto industry's cautious approach on capital spending. It plans to prioritize investment in the development and marketing of its proprietary IP products such as CGI Studio, targeting market expansion.
- For FY12/25, the last year in the new medium-term business plan that begins in FY12/21, the company targets sales of JPY13.4bn, operating profit of JPY4.5bn, and OPM of 33.9%. The company expects to achieve the FY12/20 sales and operating profit targets contained in the previous medium-term business plan, which was formulated in February 2019. Moreover, the company expects to achieve the FY12/23 targets for the Creator Support business in FY12/20, three years ahead of schedule. On the other hand, the company expects the UI/UX business to achieve earnings at only about 60% of its FY12/20 target, due largely to sluggish demand and a downturn in vehicle production volume in the automobile industry caused by the COVID-19 pandemic. With these conditions in mind, the company formulated a new five-year medium-term business plan, with FY12/21 serving as the plan's first year.

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## Strengths and weaknesses

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Shared Research believes ArtSpark's strengths lie in its technological expertise cultivated by creating products for mobile phones, Celsys' large global share in application software for end users, and Candra's track record in proprietary UI/UX and IP software product development. Weaknesses: high marketing cost of Creator Support business, major performance fluctuations in the UI/UX businesses, and time-consuming and costly to add or revise functions (see Strengths and weaknesses section).

## Key financial data

Income statement (JPY'000)	FY03/12 Simple sum	FY12/12 Cons. (9-mo.)	FY12/13 Cons. Act.	FY12/14 Cons. Act.	FY12/15 Cons. Act.	FY12/16 Cons. Act.	FY12/17 Cons. Act.	FY12/18 Cons. Act.	FY12/19 Cons. Act.	FY12/20 Cons. Act.	FY12/21 Est.
<b>Sales</b>	<b>4,565,225</b>	<b>2,633,289</b>	<b>3,685,419</b>	<b>3,826,206</b>	<b>4,156,911</b>	<b>3,835,853</b>	<b>3,636,018</b>	<b>3,789,652</b>	<b>5,381,272</b>	<b>6,373,808</b>	<b>6,735,000</b>
YoY	-7.4%	-	-	3.8%	8.6%	-7.7%	-5.2%	4.2%	42.0%	18.4%	25.2%
<b>Gross profit</b>	<b>1,694,117</b>	<b>411,323</b>	<b>1,142,503</b>	<b>1,333,494</b>	<b>1,278,954</b>	<b>1,564,523</b>	<b>1,602,062</b>	<b>1,787,129</b>	<b>2,302,804</b>	<b>3,132,156</b>	
YoY	-21.2%	-	-	16.7%	-4.1%	22.3%	2.4%	11.6%	28.9%	36.0%	
GPM	37.1%	15.6%	31.0%	34.9%	30.8%	40.8%	44.1%	47.2%	42.8%	49.1%	
<b>Operating profit</b>	<b>226,566</b>	<b>-667,312</b>	<b>-69,093</b>	<b>99,713</b>	<b>88,488</b>	<b>500,504</b>	<b>423,803</b>	<b>374,886</b>	<b>241,957</b>	<b>773,273</b>	<b>922,000</b>
YoY	-63.6%	-	-	-	-	465.6%	-15.3%	-11.5%	-35.5%	219.6%	281.1%
OPM	5.0%	-	-	2.6%	2.1%	13.0%	11.7%	9.9%	4.5%	12.1%	13.7%
<b>Recurring profit</b>	<b>215,666</b>	<b>-690,045</b>	<b>-68,222</b>	<b>93,621</b>	<b>62,226</b>	<b>477,045</b>	<b>410,425</b>	<b>357,679</b>	<b>230,167</b>	<b>747,669</b>	<b>877,000</b>
YoY	-64.5%	-	-	-	-	666.6%	-14.0%	-12.9%	-35.6%	224.8%	281.0%
RPM	4.7%	-	-	2.4%	1.5%	12.4%	11.3%	9.4%	4.3%	11.7%	13.0%
<b>Net income</b>	<b>-255,795</b>	<b>-1,350,939</b>	<b>42,811</b>	<b>59,958</b>	<b>34,791</b>	<b>337,150</b>	<b>374,791</b>	<b>334,144</b>	<b>241,469</b>	<b>-475,407</b>	<b>965,000</b>
YoY	-	-	-	40.1%	-42.0%	869.1%	11.2%	-10.8%	-27.7%	-	-
Net margin	-	-	1.2%	1.6%	0.8%	8.8%	10.3%	8.8%	4.5%	-7.5%	-
<b>Per share data</b>											
Shares outstanding (year-end; '000)	-	6,635,570	6,636,770	6,647,375	6,709,945	6,779,120	6,779,120	6,799,220	8,158,720	8,159,720	
EPS	-	-203.59	6.45	9.02	5.21	49.80	55.25	49.18	31.42	-58.31	118.26
Dividend per share	-	-	-	-	2.00	3.00	4.00	5.00	6.00	10.00	12.00
Book value per share	-	350.03	340.55	348.84	356.88	410.47	464.19	509.60	554.63	492.06	
<b>Balance sheet (JPY'000)</b>											
Cash and cash equivalents	2,191,488	1,294,740	1,323,533	1,086,746	1,323,640	2,152,234	2,491,012	2,700,195	1,905,356	2,923,860	
<b>Total current assets</b>	<b>3,823,757</b>	<b>2,158,580</b>	<b>2,130,897</b>	<b>2,214,755</b>	<b>2,085,545</b>	<b>2,542,140</b>	<b>2,996,405</b>	<b>3,279,406</b>	<b>2,708,841</b>	<b>3,866,018</b>	
Tangible fixed assets	83,204	70,065	55,733	71,552	52,856	56,035	76,767	79,336	224,285	209,027	
Investments and other assets	667,529	806,700	453,119	351,810	252,399	188,993	208,959	285,966	208,157	269,210	
Intangible fixed assets	1,406,486	979,243	1,003,040	1,326,376	1,209,075	911,906	741,982	709,851	2,669,878	1,294,023	
<b>Total assets</b>	<b>5,980,979</b>	<b>4,024,939</b>	<b>3,650,704</b>	<b>3,969,974</b>	<b>3,602,921</b>	<b>3,699,684</b>	<b>4,024,115</b>	<b>4,354,561</b>	<b>5,811,162</b>	<b>5,638,279</b>	
Accounts payable	276,578	170,305	168,904	211,822	149,730	68,135	80,707	100,590	95,858	119,644	
Short-term debt	503,136	438,576	596,879	558,012	473,141	357,329	274,964	68,080	-	-	
<b>Total current liabilities</b>	<b>1,117,737</b>	<b>1,022,418</b>	<b>1,021,006</b>	<b>1,241,218</b>	<b>975,882</b>	<b>756,137</b>	<b>676,402</b>	<b>666,971</b>	<b>896,781</b>	<b>1,295,597</b>	
Long-term debt	324,940	474,391	267,512	276,203	87,011	36,372	18,080	-	-	-	
<b>Total fixed liabilities</b>	<b>427,264</b>	<b>653,465</b>	<b>343,485</b>	<b>365,953</b>	<b>187,233</b>	<b>145,328</b>	<b>180,242</b>	<b>210,792</b>	<b>385,583</b>	<b>322,005</b>	
<b>Total liabilities</b>	<b>1,545,002</b>	<b>1,675,884</b>	<b>1,364,491</b>	<b>1,607,172</b>	<b>1,163,115</b>	<b>901,466</b>	<b>856,644</b>	<b>877,763</b>	<b>1,282,364</b>	<b>1,617,602</b>	
<b>Net assets</b>	<b>4,435,976</b>	<b>2,349,056</b>	<b>2,286,213</b>	<b>2,362,802</b>	<b>2,439,806</b>	<b>2,798,218</b>	<b>3,167,471</b>	<b>3,476,797</b>	<b>4,528,797</b>	<b>4,020,676</b>	
Total interest-bearing debt	828,076	912,967	864,391	834,215	560,152	393,701	293,044	68,080	-	-	
<b>Cash flow statement (JPYmn)</b>											
Cash flows from operating activities	273,344	137,818	358,484	672,554	837,494	1,435,075	1,021,462	1,007,074	988,658	1,820,864	
Cash flows from investing activities	-1,052,154	-622,300	-163,135	-508,476	-539,941	-551,610	-577,430	-550,631	-2,425,091	-778,846	
Cash flows from financing activities	869,543	-355,593	-48,473	-238,659	-64,272	-58,486	-108,862	-250,865	728,621	-46,282	
<b>Financial ratios</b>											
ROA (RP-based)	3.8%	-13.8%	-1.8%	2.5%	1.6%	13.1%	10.6%	8.5%	4.5%	13.1%	
ROE	-5.8%	-41.0%	1.9%	2.6%	1.5%	13.0%	12.6%	10.1%	6.1%	-11.2%	
Equity ratio	73.1%	54.9%	61.7%	58.4%	66.4%	75.2%	78.3%	79.4%	77.8%	71.2%	

Source: Shared Research based on company data

Note: Figures may differ from company materials due to differences in rounding methods.

Note: The company was formed from a merger of Celsys, Inc. and HI Corp. in April 2012, and thus FY12/12 is a nine-month period.

Note: Figures for FY03/12 and earlier are a simple aggregate of the results of Celsys, Inc. and HI Corp.

## Recent updates

### Highlights

On March 23, 2021, Shared Research updated the report following interviews with ArtSpark Holdings Inc.

On February 12, 2021, the company announced earnings results for full-year FY12/20: see the results section for details.

On the same day, the company announced the transfer of shares in a consolidated second-tier subsidiary (a specified second-tier subsidiary) and the recording of extraordinary gains.

- ▷ At a board meeting held on February 12, 2021, the company's board of directors resolved to conclude a share transfer agreement regarding the transfer of all shares of its consolidated second-tier subsidiary (specified second-tier subsidiary) HI Corp. This share transfer will result in an extraordinary gain of JPY342mn (see below). The date of conclusion of the share transfer agreement is February 12, 2021, the effective date of the share transfer is March 1, 2021 (planned), and the transfer price is JPY450mn.
- ▷ The company intends to focus on winning orders for its proprietary IP in its Creator Support and UI/UX businesses, and make a strong push to build a proprietary IP-centered business for the Group's future growth. In contrast, HI Corporation's business mainly focuses on custom development, which is not in line with the Group strategy, leading to the company's decision to transfer its shares to micware Co., Ltd.
- ▷ To ensure a fair and appropriate transfer price for the transaction, the company had HI Corp's share price appraised by a third party. Since HI Corp is not publicly listed, the equity value was calculated using the net asset value method and the earnings capitalization method, and the appraisal ranged from JPY380mn to JPY540mn. Based on this appraisal, the company and micware took into account future profitability estimates and current asset conditions, and decided on the transfer price upon thorough deliberation.
- ▷ The extraordinary gain of JPY342mn will be recorded in FY12/21 and has been factored into the company's full-year earnings forecast disclosed on February 12, 2021.
- ▷ The company expects the impact of the share transfer on its medium-term management plan (announced on November 6, 2020) for FY12/22 and beyond to be minimal.

	FY12/18	FY12/19	FY12/20
Net assets	JPY1.4bn	JPY1.4bn	JPY151mn
Total assets	JPY1.7bn	JPY1.9bn	JPY682mn
Sales	JPY885mn	JPY855mn	JPY670mn
Recurring profit	-JPY76mn	-JPY120mn	JPY31mn
Net income	JPY0mn	-JPY17mn	-JPY1.2bn

On February 8, 2021, the company announced revisions to its full-year earnings and dividend forecasts for FY12/20 (upward revisions).

#### Revised company forecast for FY12/20

- ▷ Sales: JPY6.4bn (previously JPY6.3bn)

- ▷ Operating profit: JPY773mn (JPY561mn)
- ▷ Recurring profit: JPY747mn (JPY535mn)
- ▷ Net loss\*: JPY475mn (net loss of JPY761mn)
- ▷ Year-end dividend: JPY10.0 per share (JPY7.0; JPY6.0 in FY12/19)

\*Net loss attributable to owners of the parent

#### Reason for revision

- ▷ ArtSpark expects sales to exceed the previous forecast due to steady overseas sales growth in the Creator Support business.
- ▷ The company projects operating profit and recurring profit (including amortization of goodwill of Candra GmbH of approximately JPY367mn) to exceed the previous forecast, reflecting the increase in sales of the Creator Support business and greater-than-expected reductions to the cost of sales in the UI/UX business compared to the initial plan. The net loss attributable to owners of the parent reflects goodwill impairment of JPY1.1bn (recorded in Q3 FY12/20) and tax adjustments.
- ▷ The year-end dividend forecast has been revised upward by JPY3.0 from the previous forecast of JPY7.0 to JPY10.0 per share (+JPY4.0 YoY). The company anticipates sales and operating profit in the Creator Support business to exceed the targets for FY12/23, the final year of the previous medium-term management plan, three years ahead of schedule. Further, the company expects to record a net loss due to a goodwill impairment charge in the wake of the COVID-19 pandemic, but this is a one-time extraordinary loss. The dividend forecast has been revised upward based on above factors and the revision to the consolidated earnings forecast.

**For previous releases and developments, please refer to the News and topics section.**

## Trends and outlook

### Quarterly trends and results

Quarterly performance (JPYmn)	FY12/18				FY12/19				FY12/20				FY12/20	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	% of Est.	FY Est.
Sales	1,012	911	905	962	1,180	1,355	1,513	1,334	1,443	1,564	1,657	1,709	100.0%	6,373
YoY	20.4%	3.3%	-12.6%	9.5%	16.5%	48.8%	67.2%	38.7%	22.3%	15.5%	9.6%	28.1%		18.4%
Gross profit	514	425	419	428	652	508	476	666	685	853	927	667		
YoY	22.6%	6.3%	-22.4%	76.7%	26.7%	19.4%	13.7%	55.7%	5.1%	67.9%	94.7%	0.2%		
GPM	50.8%	46.7%	46.3%	44.5%	55.3%	37.5%	31.5%	49.9%	47.5%	54.6%	56.0%	39.0%		
SG&A expenses	301	337	293	481	396	535	462	668	542	638	653	527		
YoY	7.7%	17.2%	5.3%	43.9%	31.5%	58.9%	57.6%	38.8%	36.9%	19.3%	41.4%	-21.1%		
SG&A ratio	29.7%	37.0%	32.4%	50.0%	33.5%	39.5%	30.5%	50.0%	37.5%	40.8%	39.4%	30.8%		
Operating profit	214	89	126	-53	256	-27	14	-2	143	215	274	140	100.0%	773
YoY	52.0%	-21.6%	-52.0%	-	20.0%	-	-88.6%	-	-44.0%	-	1813.1%	-		219.5%
OPM	21.1%	9.8%	13.9%	-	21.7%	-	0.9%	-	9.9%	13.8%	16.5%	8.2%		12.1%
Recurring profit	201	89	127	-60	252	-33	12	-1	140	209	268	132	100.1%	747
YoY	51.1%	-19.6%	-51.6%	-	25.5%	-	-90.7%	-	-44.7%	-	2152.6%	-		224.5%
RPM	19.9%	9.8%	14.1%	-	21.4%	-2.4%	0.8%	0	9.7%	13.3%	16.2%	7.7%		11.7%
Net income	179	71	94	-9	202	-31	50	20	75	133	-859	176	-	-475
YoY	40.3%	-24.2%	-56.4%	-	13.2%	-	-46.6%	-	-63.1%	-	-	771.9%		-
Net margin	17.7%	7.8%	10.4%	-	17.2%	-2.3%	3.3%	1.5%	5.2%	8.5%	-51.8%	10.3%		-
<b>Cumulative</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>		
Sales	1,012	1,923	2,828	3,790	1,180	2,534	4,047	5,381	1,443	3,007	4,665	6,374		
YoY	20.4%	11.7%	2.5%	4.2%	16.5%	31.8%	43.1%	42.0%	22.3%	18.7%	15.3%	18.4%		
Gross profit	514	940	1,359	1,787	652	1,160	1,636	2,302	685	1,538	2,466	3,133		
YoY	22.6%	14.6%	-0.1%	11.5%	26.7%	23.4%	20.4%	28.9%	5.1%	32.6%	50.7%	36.1%		
GPM	50.8%	48.9%	48.1%	47.1%	55.3%	45.8%	40.4%	42.8%	47.5%	51.2%	52.9%	49.2%		
SG&A expenses	301	637	931	1,412	396	931	1,393	2,060	542	1,180	1,833	2,360		
YoY	7.7%	12.5%	10.2%	19.7%	31.5%	46.0%	49.7%	46.0%	36.9%	26.8%	31.6%	14.5%		
SG&A ratio	29.7%	33.2%	32.9%	37.2%	33.5%	36.7%	34.4%	38.3%	37.5%	39.2%	39.3%	37.0%		
Operating profit	214	302	428	375	256	229	244	242	143	359	633	773		
YoY	52.0%	19.1%	-17.0%	-11.5%	20.0%	-24.2%	-43.1%	-35.5%	-44.0%	56.4%	159.8%	219.6%		
OPM	21.1%	15.7%	15.1%	9.9%	21.7%	9.0%	6.0%	4.5%	9.9%	11.9%	13.6%	12.1%		
Recurring profit	201	290	417	358	252	219	231	230	140	348	616	748		
YoY	51.1%	19.0%	-17.6%	-12.9%	25.5%	-24.3%	-44.6%	-35.6%	-44.7%	58.7%	166.4%	224.8%		
RPM	19.9%	15.1%	14.8%	9.4%	21.4%	8.7%	5.7%	4.3%	9.7%	11.6%	13.2%	11.7%		
Net income	179	250	344	334	202	171	221	241	75	208	-651	-475		
YoY	40.3%	13.0%	-21.3%	-10.8%	13.2%	-31.4%	-35.6%	-27.7%	-63.1%	21.2%	-	-		
Net margin	17.7%	13.0%	12.2%	-	17.2%	6.8%	5.5%	4.5%	5.2%	6.9%	-14.0%	-7.5%		

Source: Shared Research based on company data

Note: Figures may differ from company materials due to differences in rounding methods.



## Performance by quarter

Quarterly (JPY mn)	FY12/18				FY12/19				FY12/20			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Sales</b>												
Creator Support	679	748	750	781	909	886	904	918	1,014	1,242	1,257	1,293
UI/UX	344	174	170	198	287	473	608	422	434	334	405	416
Subtotal	1,023	972	869	979	1,196	1,359	1,513	1,340	1,448	1,576	1,661	1,709
Adjustments	-11	-11	-15	-16	-17	-4	0	-5	-5	-12	-4	0
<b>Total</b>	<b>1,012</b>	<b>911</b>	<b>905</b>	<b>962</b>	<b>1,180</b>	<b>1,355</b>	<b>1,513</b>	<b>1,334</b>	<b>1,443</b>	<b>1,564</b>	<b>1,657</b>	<b>1,709</b>
<b>Operating profit</b>												
Creator Support	139	157	142	34	239	177	191	85	312	476	415	260
UI/UX	52	-51	-56	-13	40	-196	-160	-120	-201	-268	-168	-175
Subtotal	191	106	87	21	279	-19	32	-35	111	208	247	85
Adjustments	23	-17	39	-75	-23	-8	-17	33	33	8	27	55
<b>Total</b>	<b>214</b>	<b>89</b>	<b>126</b>	<b>-53</b>	<b>256</b>	<b>-27</b>	<b>14</b>	<b>-2</b>	<b>143</b>	<b>215</b>	<b>274</b>	<b>140</b>
<b>OPM</b>												
Creator Support	20.4%	21.0%	19.0%	4.4%	26.3%	20.0%	21.2%	9.2%	30.8%	38.3%	33.0%	20.1%
UI/UX	15.2%	-29.2%	-32.9%	-6.7%	13.8%	-41.4%	-26.3%	-28.4%	-46.3%	-80.3%	-41.6%	-42.1%
<b>Total</b>	<b>21.1%</b>	<b>9.8%</b>	<b>13.9%</b>	<b>-5.6%</b>	<b>21.7%</b>	<b>-2.0%</b>	<b>0.9%</b>	<b>-0.1%</b>	<b>9.9%</b>	<b>13.8%</b>	<b>16.5%</b>	<b>8.2%</b>
<b>Cumulative (JPY mn)</b>												
	FY12/18				FY12/19				FY12/20			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Sales</b>												
Creator Support	679	1,426	2,176	2,957	909	1,795	2,699	3,617	1,014	2,256	3,513	4,807
UI/UX	344	519	688	886	287	760	1,369	1,790	434	767	1,172	1,588
Subtotal	1,023	1,995	2,864	3,843	1,196	2,555	4,068	5,408	1,448	3,024	4,685	6,394
Adjustments	-11	-22	-37	-53	-17	-21	-21	-26	-5	-17	-21	-21
<b>Total</b>	<b>1,012</b>	<b>1,923</b>	<b>2,828</b>	<b>3,790</b>	<b>1,180</b>	<b>2,534</b>	<b>4,047</b>	<b>5,381</b>	<b>1,443</b>	<b>3,007</b>	<b>4,665</b>	<b>6,374</b>
<b>Operating profit</b>												
Creator Support	139	295	438	472	239	416	608	693	312	787	1,203	1,463
UI/UX	52	2	-54	-67	40	-156	-316	-436	-201	-469	-637	-812
Subtotal	191	297	384	405	279	260	291	256	111	318	565	651
Adjustments	23	5	45	-30	-23	-31	-48	-14	33	40	67	122
<b>Total</b>	<b>214</b>	<b>302</b>	<b>428</b>	<b>375</b>	<b>256</b>	<b>229</b>	<b>244</b>	<b>242</b>	<b>143</b>	<b>359</b>	<b>633</b>	<b>773</b>
<b>OPM</b>												
Creator Support	20.4%	20.7%	20.1%	16.0%	26.3%	23.2%	22.5%	19.1%	30.8%	34.9%	34.2%	30.4%
UI/UX	15.2%	0.3%	-7.9%	-7.6%	13.8%	-20.6%	-23.1%	-24.4%	-46.3%	-61.1%	-54.4%	-51.2%
<b>Total</b>	<b>21.1%</b>	<b>15.7%</b>	<b>15.1%</b>	<b>9.9%</b>	<b>21.7%</b>	<b>9.0%</b>	<b>6.0%</b>	<b>4.5%</b>	<b>9.9%</b>	<b>11.9%</b>	<b>13.6%</b>	<b>12.1%</b>

Source: Shared Research based on company data

Note: Figures may differ from company materials due to differences in rounding methods. Figures are before eliminations.

Note: From Q1 FY12/16, the company revised its business performance management categories, integrating the Applications business with the UI/UX business (figures for the businesses are shown under the UI/UX business). Figures for periods prior to Q1 FY12/16 are also retroactively adjusted in the table above.

Note: From Q1 FY12/17, the company revised its business performance management categories, integrating the Content Solutions business with the Creator Support business (figures for the businesses are shown under the Creator Support business). Figures for periods prior to Q1 FY12/17 are also retroactively adjusted in the table above.

## Full-year FY12/20 results (out February 12, 2021)

### Overview of results

- ▷ FY12/20 results: ArtSpark reported sales of JPY6.4bn (+18.4% YoY), operating profit of JPY773mn (+219.6% YoY), recurring profit of JPY748mn (+224.8% YoY), and a net loss attributable to owners of the parent of JPY475mn (versus net income of JPY241mn in FY12/19).
- ▷ Progress: The company revised its full-year earnings forecast upward on February 8, 2021, and the earnings results were in line with the revised forecast. Sales were driven mainly by strong overseas sales in the Creator Support business, while profits were driven mainly by the sales increase as well as cost reductions in the UI/UX business.
- ▷ Sales up 18.4% YoY: The UI/UX business struggled amid sluggish demand and a downturn in production volume in the automobile industry. On the other hand, in the Creator Support business, demand was firm for the products and solutions supplied by subsidiary Celsys that use digital technology to support content creation and viewing, which contributed to firm sales in Japan and overseas.
- ▷ Operating profit up 219.6% YoY: Alongside favorable sales in the Creator Support business, operating profit rose sharply on the booking of highly profitable sales, including the new subscription-based billing model adopted for CLIP STUDIO PAINT. The COVID-19 pandemic has caused significant change in the business environment for the UI/UX business. The company prioritized investment in the development and marketing of its proprietary IP products, targeting market expansion.
- ▷ Recurring profit up 224.8% YoY: Despite booking of JPY22mn in forex loss (versus JPY3mn in FY12/19), there was no interest expenses (versus JPY5mn in FY12/19) and a YoY decline in patent and trademark amortization.
- ▷ Net loss attributable to owners of the parent of JPY475mn: Factoring in the impact from the COVID-19 pandemic on the industry, the company in Q3 recorded impairment losses of JPY1.1bn on a portion of recognized goodwill.

#### \*Revised company forecast for FY12/20 (announced February 8, 2021)

- ▷ Sales: JPY6.4bn (previously JPY6.3bn)
- ▷ Operating profit: JPY773mn (JPY561mn)
- ▷ Recurring profit: JPY747mn (JPY535mn)
- ▷ Net loss\*: JPY475mn (net loss of JPY761mn)
- ▷ Year-end dividend: JPY10.0 per share (JPY7.0; JPY6.0 in FY12/19)

\*Net loss attributable to owners of the parent

#### Reason for revision

- ▷ ArtSpark expects sales to exceed the previous forecast due to steady overseas sales growth in the Creator Support business.
- ▷ The company projects operating profit and recurring profit (including amortization of goodwill of Cander GmbH of approximately JPY367mn) to exceed the previous forecast, reflecting the increase in sales of the Creator Support business and greater-than-expected reductions to the cost of sales in the UI/UX business compared to the initial plan. The net loss attributable to owners of the parent reflects goodwill impairment of JPY1.1bn (recorded in Q3 FY12/20) and tax adjustments.
- ▷ The year-end dividend forecast has been revised upward by JPY3.0 from the previous forecast of JPY7.0 to JPY10.0 per share (+JPY4.0 YoY). The company anticipates sales and operating profit in the Creator Support business to exceed the targets for FY12/23, the final year of the previous medium-term management plan, three years ahead of schedule. Further, the company expects to record a net loss due to a goodwill impairment charge in the wake of the COVID-19 pandemic, but this is a one-time extraordinary loss. The dividend forecast has been revised upward based on above factors and the revision to the consolidated earnings forecast.

## Results by segment

Results by segment are outlined below.

### Creator Support

- ▷ Segment sales (sales to external customers) were JPY4.8bn (+32.9% YoY) and operating profit was JPY1.5bn (+111.3% YoY).
- ▷ ArtSpark has shipped more than 10mn units in the CLIP STUDIO PAINT series since its 2012 launch, with more than 60% going to overseas customers.

- ▷ The company launched CLIP STUDIO PAINT for Galaxy for use in Galaxy-series mobile products simultaneously on a global basis on the Galaxy Store in August 2020 using a subscription-based billing model.
- ▷ Samsung's Galaxy Tab S7 series of Android tablets, which has attracted 2.5x as many pre-orders as the preceding series did, is now shipping globally with CLIP STUDIO PAINT pre-installed.
- ▷ The company held International Illustration Contest 2020 jointly with Galaxy and Wacom Co., Ltd. (TSE1: 6727), which offers pen technology for use with the Galaxy Tab series.
- ▷ Toei Animation Co., Ltd. adopted the company's CLIP STUDIO PAINT for iPad as its digital drawing software. At the same time, ArtSpark started offering volume licensing plans for businesses using the iPad version of CLIP STUDIO PAINT.
- ▷ The company released CLIP STUDIO PAINT for Android using a subscription-based billing model. It works with Chrome OS and can be used on Chromebooks, which are increasingly used in the field of education. In conjunction with the release of the Android version, the company conducted a large online promotion in Japan and overseas during the Christmas season, with the aim of increasing the user count and raising brand awareness.
- ▷ The company moved to expand the number of users, including by offering through the California Department of Education CLIP STUDIO PAINT DEBUT for free for six months to all of roughly 2mn students and teachers at about 1,600 high schools in the state who applied for the use of service.
- ▷ The town of Oiso in Kanagawa Prefecture, ArtSpark subsidiary Celsys, Wacom, and I-NET CORP. (TSE1: 9600) concluded a partnership agreement to strengthen mutual cooperation for the purpose of promoting the New Normal Digital Creative Education program, which aims to improve the quality of primary and secondary education in Oiso.
- ▷ In July 2020, the company implemented a major upgrade for CLIP STUDIO READER, an e-book viewer, which features improved customizability and allows service providers to add functions in line with the content of services offered. In addition, it enhanced text content support to optimize display according to screen size and reduce the size of delivery files.

## UI/UX

- ▷ Segment sales were JPY1.6bn (-11.3% YoY) and the operating loss was JPY812mn (versus an operating loss of JPY436mn in FY12/19). The operating loss includes goodwill amortization of JPY367mn on subsidiary acquisition.
- ▷ In the UI/UX business, ArtSpark is focusing on development and sale of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of HMI).
- ▷ The automotive industry, which represents the UI/UX business's largest pool of customers, faces a challenging operating environment due to the COVID-19 outbreak, which has led to declines in auto demand and capital spending on a global scale. Although production of finished vehicles is recovering, the company expects the challenging environment to remain due to the auto industry's cautious approach on capital spending.
- ▷ The company released CGI Studio3.9 with the added functionality of an innovative AI-based importer to improve usability.
- ▷ It also equipped CGI Studio with Monotype (the world largest type foundry)'s iType® font rendering engine.
- ▷ CGI Studio officially began offering support for rendering operations available on all cutting-edge devices, including multi-core for Cypress' Traveo II graphic MCUs, which are the newest products in the Traveo II automotive MCU line-up.
- ▷ Subsidiary Candera and LG Electronics Inc. jointly developed an innovative augmented reality (AR) solution to support a range of displays, including in-vehicle heads-up displays (HUD) and center information displays (CID).
- ▷ At Embedded World 2020, one of Europe's largest international exhibitions of embedded-related technologies, the company presented a mix of innovative HMI solutions and technologies in the area of embedded HMI design, including a comprehensive cockpit solution for automobiles and a newly developed user interface for smart ovens.

- ▷ At the electronica China 2020 event held in Shanghai, Fujitsu Electronics Inc. held a demonstration of CGI Studio installed on hardware manufactured by Socionext.

**For details on previous quarterly and annual results, see the Historical financial statements section.**

## Company forecast for FY12/21

(JPYmn)	FY12/19			FY12/20			FY12/21		
	1H Act.	2H Act.	FY Act.	1H Act.	2H Act.	FY Act.	1H Est.	2H Est.	FY Est.
<b>Sales</b>	<b>2,534</b>	<b>2,847</b>	<b>5,381</b>	<b>3,007</b>	<b>3,366</b>	<b>6,374</b>	<b>3,254</b>	<b>3,481</b>	<b>6,735</b>
YoY	31.8%	52.5%	42.0%	18.7%	18.3%	18.4%	8.2%	3.4%	5.7%
Cost of sales	1,373	1,705	3,078	1,470	1,771	3,242			
<b>Gross profit</b>	<b>1,160</b>	<b>1,143</b>	<b>2,303</b>	<b>1,538</b>	<b>1,595</b>	<b>3,133</b>			
GPM	45.8%	40.1%	42.8%	51.2%	47.4%	49.2%			
SG&A expenses	931	1,130	2,060	1,180	1,180	2,360			
SG&A ratio	36.7%	39.7%	38.3%	39.2%	35.1%	37.0%			
<b>Operating profit</b>	<b>229</b>	<b>13</b>	<b>242</b>	<b>359</b>	<b>415</b>	<b>773</b>	<b>391</b>	<b>531</b>	<b>922</b>
YoY	-24.2%	-	-35.5%	56.4%	3165.0%	219.6%	9.0%	28.1%	19.2%
OPM	9.0%	-	4.5%	11.9%	12.3%	12.1%	12.0%	15.3%	13.7%
<b>Recurring profit</b>	<b>219</b>	<b>11</b>	<b>230</b>	<b>348</b>	<b>400</b>	<b>748</b>	<b>370</b>	<b>507</b>	<b>877</b>
YoY	-24.3%	-	-35.6%	58.7%	3603.7%	224.8%	6.3%	26.9%	17.3%
RPM	8.7%	-	4.3%	11.6%	11.9%	11.7%	11.4%	14.6%	13.0%
<b>Net income</b>	<b>171</b>	<b>70</b>	<b>241</b>	<b>208</b>	<b>-683</b>	<b>-475</b>	<b>548</b>	<b>417</b>	<b>965</b>
YoY	-31.4%	-16.8%	-27.7%	21.2%	-1071.4%	-296.9%	164.1%	-	-
Net margin	6.8%	2.5%	4.5%	6.9%	-20.3%	-7.5%	16.8%	12.0%	14.3%

Source: Shared Research based on company data  
 Figures may differ from company materials due to differences in rounding methods.  
 Forecast based on most recently released figures.

### FY12/21 earnings forecast (announced February 12, 2021)

The FY12/21 forecast calls for sales of JPY6.7bn (+5.7% YoY), operating profit of JPY922mn (+19.2% YoY), recurring profit of JPY877mn (+17.3% YoY), and net income attributable to owners of the parent of JPY965mn (versus a net loss of JPY475mn in FY12/20). The year-end dividend forecast is JPY12 (JPY10 in FY12/20).

- ▷ In March 2021, the company transferred all shares of Candera Japan's wholly owned subsidiary, HI Corp (a consolidated second-tier subsidiary of the company) to micware Co., Ltd. In the Creator Support and UI/UX businesses, the ArtSpark Group will continue to focus on developing proprietary software IPs and conduct sales promotion activities. HI Corp's business mainly focuses on custom development, which is not in line with the Group strategy of leveraging proprietary IP.
- ▷ The difference between the FY12/21 earnings forecast in the medium-term management plan announced on November 6, 2020 (FY12/21-FY12/25; see section below) and the FY12/21 earnings forecast announced on February 12, 2021 is attributable to the sale of HI Corp.
- ▷ In the Creator Support business, it will continue investing in R&D for CLIP STUDIO with an eye on global rollout, while maintaining its market position and enhancing its new subscription-based billing model, with the aim of improving the continuity and profitability of service.
- ▷ The COVID-19 pandemic has caused significant change in the business environment for the UI/UX business. Although the production of finished automobiles is recovering at some manufacturers, the company expects challenging conditions to continue due to the auto industry's cautious approach on capital spending. It plans to prioritize investment in the development and marketing of its proprietary IP products such as CGI Studio, targeting market expansion.

## Outlook

### New medium-term business plan (FY12/21–FY12/25)

The company announced a new five-year medium-term management plan set to start in FY12/21. The background is as follows.

- ▷ The company expects to achieve the FY12/20 sales and operating profit targets contained in the previous medium-term business plan, which was formulated in February 2019.
- ▷ Moreover, the company expects to achieve the FY12/23 sales targets for the Creator Support business in FY12/20, three years ahead of schedule. On the other hand, the company expects the UI/UX business to achieve only about 60% of its FY12/20 sales target, due largely to sluggish demand and a downturn in vehicle production volume in the automobile industry caused by the COVID-19 pandemic.

For FY12/25, the final year of the new medium-term management plan, the company targets sales of JPY13.4bn (+212.8% versus FY12/20 forecast) and operating profit of JPY4.5bn (+809.3% versus FY12/20 forecast).

- ▷ The company projects sales to exceed previous medium-term management targets (FY12/19–FY12/23; see section below) as the pace of growth in the Creator Support business has accelerated.
- ▷ Operating profit is on an upward trend compared to the previous medium-term management plan as the company recorded impairment losses on goodwill in FY12/20.

#### New medium-term plan (announced November 6, 2020)

(JPY mn, % of segment sales)	FY12/21 Targets	FY12/22 Targets	FY12/23 Targets	FY12/24 Targets	FY12/25 Targets
Sales	6,980	8,110	9,190	11,090	13,380
Creator Support	5,490	6,640	7,460	8,950	10,690
Distribution and direct sales	49%	43%	37%	30%	25%
Subscription	28%	36%	44%	49%	52%
Solutions	23%	20%	16%	15%	14%
New businesses	-	1%	3%	6%	9%
UI/UX	1,490	1,470	1,730	2,140	2,690
Royalty	36%	47%	48%	45%	42%
Licensing	15%	15%	19%	25%	30%
Support	11%	9%	7%	9%	9%
Contract services	38%	29%	26%	21%	19%
Operating profit	1,070	1,880	2,190	3,340	4,540
Creator Support	1,370	2,120	2,270	2,870	3,500
UI/UX	-300	-240	-80	470	1,040
UI/UX (before goodwill amortization)	-180	-120	40	500	1,040
OP before goodwill amortization	1,190	2,000	2,310	3,370	4,540
Operating profit margin	15.3%	23.2%	23.8%	30.1%	33.9%
Creator Support	25.0%	31.9%	30.4%	32.1%	32.7%
UI/UX	-20.1%	-16.3%	-4.6%	22.0%	38.7%

Source: Shared Research based on company data

Note: Sales mix is an approximation calculated by Shared Research based on values taken from figures in company documents.

#### Future initiatives

##### Creator Support business

In addition to providing stable e-book solutions, the company aims to further accelerate the global expansion of the business by strengthening services and development of the CLIP STUDIO PAINT series of products. To accomplish this, it will continue investing in R&D and establish a new subscription-based billing model to improve service continuity and profitability while maintaining its market position. Additionally, the company will invest in new business development and aim to grow at a CAGR of 10–20%.

- ▷ For subscription sales as a percentage of total sales, the company is targeting about 28% in FY12/21, 36% in FY12/22, 44% in FY12/23, 49% in FY12/24, and 52% in FY12/25.

- ▷ To grow its number of users five-fold by FY12/25, the company plans to implement various measures aimed at driving monthly subscription user growth.
- ▷ CLIP STUDIO user expansion plan 1—accelerating global expansion: The company will raise the percentage of users outside of Japan from the current 60% to more than 80% by FY12/25 by strengthening localization of its tools and services in multiple languages and carrying out global marketing activities over the internet.
- ▷ CLIP STUDIO user expansion plan 2—strengthening multiplatform and multidevice expansion: In addition to Windows, Mac, iPhone, iPad, and Galaxy, the company will start supporting Android and Chromebook platforms.
- ▷ CLIP STUDIO user expansion plan 3—expanding payment options: In addition to accepting credit card payments as well as payments from app store platforms operated by Apple and Google, the company will support payment methods tailored to various countries.
- ▷ Proactive and continuous R&D investment plan 1—strengthen CLIP STUDIO functions: The company will enhance functionality and improve reliability of CLIP STUDIO PAINT and expand content output services, including for e-book solutions. Additionally, it will expand community services and improve operational capabilities for users worldwide.
- ▷ Proactive and continuous R&D investment plan 2—strengthen AI and machine learning initiatives, further leverage 3D graphics technologies: The company will take on the challenge of developing a new 3D technology-based business by creating a realistic virtual environment using 3D technologies where people can create, present, and consume content unique to the virtual 3D world.

## UI/UX business

Amid a sharp shift in the operating environment triggered by the COVID-19 pandemic, the company aims to invest in the development and marketing of its self-developed IP products with an eye toward a future expansion in the market. The company is strengthening development and marketing collaboration efforts with Candera GmbH, establishing Candera Japan Inc. in June 2019 as a wholly owned subsidiary to handle sales, development, and support operations in Japan and Asia. Moreover, to acquire new customers in North America, it established second-tier US subsidiary Candera America Inc. in the Detroit area in December 2019. In addition to strengthening the functionality of its self-developed IP products, the company will proactively pursue customers in the industrial equipment and consumer electronics industries on top of its current customer base in the automotive industry. Also, to establish a structure that can withstand changes in the business environment such as the recent COVID-19 outbreak, the company will invest in development and marketing activities through FY12/23 with aims to expand sales from FY12/24.

- ▷ Although the company anticipates in-vehicle related sales to be sluggish in 2021 due to the COVID-19 outbreak, it plans to leverage its advanced technologies accumulated in this field to approach a wide range of customers.
- ▷ Raising the percentage of sales from royalties: For royalty sales as a percentage of total sales, the company is aiming for roughly 36% in FY12/21, 47% in FY12/22, 48% in FY12/23, 45% in FY12/24, and 42% in FY12/25.
- ▷ Raising the percentage of sales from licensing: For licensing sales as a percentage of total sales, the company is aiming for about 15% in FY12/21, 15% in FY12/22, 19% in FY12/23, 25% in FY12/24, and 30% in FY12/25.
- ▷ The company's IP products are essential HMI solutions for displaying GUIs on LCDs, and it believes LCD demand will continue to grow in the future, including in the automotive industry, which is currently the company's main customer market.
- ▷ The human-machine interface (HMI), which is the link between humans and machines, goes beyond just images and includes voice and gestures. However, images are still the primary focus, and the company believes that for HMIs that require real-time rendering, the tools for developing GUIs as well as the rendering engines that display the GUIs are essential.
- ▷ The next-generation solutions under development will be based on the highly acclaimed functions of existing products CGI Studio and UI Conductor and will go beyond the automotive industry, supporting various embedded products such as industrial and consumer devices, which are becoming increasingly sophisticated. The company aims to create a low

maintenance product mix by passing on the strengths of CGI Studio and UI Conductor by end-2022, and will switch its focus to sales and new function development from 2023.

- ▷ For existing products such as CGI Studio and UI Conductor, the company will establish customer relationships as a software developer and then introduce new products by end-2022. It will lay the groundwork needed for a smooth introduction of new products. Additionally, in terms of developing new markets, the company will work on expanding beyond the automotive industry by end-2022 to diversify its earnings sources across multiple areas. Starting in 2023, the company will leverage technologies developed within the group to launch a community version (free evaluation copy) and reach more users. It also aims to reduce support resources by providing extensive manuals and samples in multiple languages, and encourage users to switch from existing products such as CGI Studio and UI Conductor to next-generation solutions.

## Reference: Previous medium-term business plan (FY12/19–FY12/23)

Along with its FY12/18 full-year results, the company announced a new medium-term plan (FY12/19–FY12/23). FY12/23 targets include sales of JPY8.5bn (2.2x FY12/18 levels) and operating profit of JPY2.2bn (5.9x). Assumptions are stable growth for the Creator Support business and accelerated growth for the UI/UX business due to the Candera acquisition (discussed below). It plans to continue providing an environment that offers total support of all activities—from digital content creation through use and application.

### Background to announcement of new medium-term business plan

Along with its announcement of FY12/17 results on February 9, 2018, ArtSpark noted the need to update the medium-term business plan it released back in July 2015, due to changes in the market environment. It added changes in market environment had increased uncertainty about the future and made it necessary to step up R&D efforts in order to reinforce the competitiveness of its software IP. Regarding performance targets, the company said at the time that it was limiting revisions to its sales and earnings targets for FY12/18, but that it planned to put together a new business plan and, once that was ready, it would be released at the appropriate time.

### Medium-term plan

(JPYmn)	FY12/19	FY12/20	FY12/21	FY12/22	FY12/23
Total sales	5,170	6,050	6,660	7,440	8,520
Creator Support business	3,250	3,440	3,720	4,110	4,700
UI/UX business	1,920	2,610	2,940	3,330	3,820
Operating profit (OPM)	260 (4.9%)	380 (6.2%)	1,000 (15.0%)	1,580 (21.2%)	2,190 (25.8%)
Operating profit before goodwill amortization* (Profit margin)	530 (10.2%)	800 (13.3%)	1,420 (21.3%)	2,000 (26.9%)	2,620 (30.7%)

Source: Shared Research based on company data

Note: Figures shown are before amortization of goodwill from acquisition of Candera GmbH. Five-year straight-line amortization is assumed for goodwill

### Initiatives aimed at future growth

- ▷ Creator Support business: Further accelerate global development through strengthening development and service offerings while maintaining stable growth.
  - CLIP STUDIO PAINT growth (see the Business section for details): Work toward further global rollout. Strengthen development, service offerings, and promotion, and look for annual growth of 10–20%. Look for margin improvement driven by recent strength in CLIP STUDIO PAINT for iPad and continued growth in the subscription version.
- ▷ UI/UX business: Following the Candera acquisition, grow business by exploiting synergies through expanded customer base and sharing expertise. The company aims to double sales partly due to impact of acquisition.
  - Synergies from Candera acquisition



- ◇ Aims to expand business portfolio through acquisition of Candera, a leading company in the embedded HMI and GUI design software field.
- ◇ ArtSpark mainly supplies products to Japanese and American car companies, and Candera to European manufacturers, so both companies can tap into each other's customer base.
- ◇ Aims to improve added value and market competitiveness by strengthening development structure through collaboration.
- ◇ Aims to improve margins by reducing marketing and other costs
- Generating earnings from existing pipeline
  - ◇ ArtSpark has already signed contracts with major Japanese car manufacturers and expects related earnings contributions to emerge from FY12/21.
  - ◇ HMI is bound to become an important concept as safety is being increasingly scrutinized due to autonomous driving and other factors. The company expects earnings growth to be driven by further installations of UI Conductor, an HMI development tool enhanced with 3D functions to be more competitive in the market.
- ▷ Group synergy project: Create new IP by synergies among three businesses: Candera, HI, and Celsys. Aims to generate earnings from new project from FY12/22.
  - Phase 1: Deepen mutual understanding between Candera, HI, and Celsys (in terms of corporate cultures, including skills, technologies, challenges, and procedures).
  - Phase 2: Explore and determine specific themes (narrow down to a few themes based on internal discussions in the group).
  - Phase 3: Conduct small-scale development projects in line with themes (select themes from challenges faced by each company).
  - Phase 4: Conduct joint development on the assumption of scrap and build with an eye toward Phase 5 (link to formulation of themes for full-scale joint development).
  - Phase 5: Conduct full-scale joint development (target creation of new IPs without being constrained by existing businesses).

## Acquisition of Candera

In January 2019, ArtSpark acquired the shares of Socionext Embedded Software Austria GmbH (currently Candera GmbH; company name changed on February 1, 2019) for JPY2.0bn\* (excluding roughly JPY150mn in advisory fees), and turned the company into a subsidiary.

\* Conditional acquisition price: In the next three fiscal years, if Candera's pre-tax profit exceeds predetermined targets (net income target for first fiscal year), ArtSpark will pay an additional premium for the acquisition.

## Profile of Candera

- ▷ Software company established in Austria in 2000; leading company in the embedded HMI and GUI design software field.
- ▷ Its key product is CGI Studio, a UI design software that reduces development time and costs for development processes for embedded and in-vehicle devices.
- ▷ The company mainly supplies CGI Studio to German and other European major car manufacturers on an OEM basis.

## Purpose of acquisition

- ▷ Expand business portfolio.
- ▷ Grow customer base and market share.

- ▷ Improve added value and market competitiveness by strengthening product development through collaboration.
- ▷ Increase margins through cost reductions.

## Background

- ▷ In its UI/UX business, ArtSpark has development solutions including a UI authoring tool (exbeans UI Conductor) and products for drawing graphics which are used in UI (user interface) solutions to provide total support in fields from technology through design. Meanwhile, Candera supplies scalable human-machine interface (HMI) not reliant on hardware as well as CGI Studio, GUI (graphical user interface) design software. It supplies major automobile companies primarily in Europe on an OEM basis and is highly compatible with ArtSpark.
- ▷ Japanese car companies are customers for the ArtSpark group's existing exbeans UI Conductor, and major European car manufacturers are customers for SESA's CGI Studio, so each company can tap into the other's customer base. SESA has knowledge about ISO 26262\*1 as well as Automotive SPICE\*2. It will be able to share this expertise at a time when safety is under increasing scrutiny due to autonomous driving and other factors. ArtSpark thinks that there are many potential synergies, as sharing development expertise will assist in developing more efficiently, and expects enhanced market competitiveness.
- ▷ The company plans to appoint Candera director Reinhard Füricht to the position of managing director.

\*1: ISO 26262 refers to a global functional safety standard for automotive electric and electronic systems.

\*2 Automotive SPICE refers to a process model issued by the VDA QMC (German Automotive Industry Association Quality Management Center) that establishes the process framework for automotive software development. It aims to evaluate automotive software development processes quantitatively.

## Equity financing

The company announced the issue of its 11th stock acquisition rights with exercise price adjustment provisions (and provisions enabling instructions to exercise or suspend exercise) through third-party allocation.

### Overview of offering

Allotment date	One of the days between March 8, 2019 and March 12, 2019. Allotment date is to be 15 days following the day that conditions governing the exercise price are decided. If the second date is a holiday, allotment date shall be the next business day.
Number of rights	13,500
Exercise price	JPY514 per stock acquisition right However, the company's board of directors will select one of the days from February 21, 2019 through February 25, 2019 as the day (determination date) to determine the final conditions applying to the stock acquisition rights. It will consider a variety of circumstances including stock price fluctuations at the relevant time. If the calculations result in an exercise price of over JPY514 (based on the same method used to calculate the exercise price above), the exercise price shall be based on the determination date calculation. The total amount of the issue will be result of multiplying the number of stock acquisition rights, 13,500, by the issue price per stock acquisition right.
Resulting dilutive shares	Number of dilutive shares: 1,350,000 (100 shares per stock acquisition right) The minimum exercise price will be set on the determination date, but the dilutive number of shares to is still 1,350,000 at the minimum exercise price
Amount to be raised (estimated net proceeds)	1,260,539,000
Subscription or allotment method (allottee)	Third-party allocation to Nomura Securities Co. Ltd.

### Application of funds raised

Specific application of funds raised	Amount (JPYmn)	Planned expenditure period
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Funds used to purchase Candra GmbH* (former Socionext Embedded Software Austria GmbH), made a subsidiary on January 31, 2019	1,260	March 2019–March 2023
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Source: Shared Research based on company data  
Note: \*Refer to December 17, 2018 release

## Business

### Business description

#### Dual-company business model sets ArtSpark apart

##### Merger of Celsys and HI Corp.

ArtSpark was a joint holding company formed by the merger of Celsys, Inc. and HI Corp in April 2012, but HI Corp (a wholly owned subsidiary of Candera), which was mainly engaged in custom development in the UI/UX business, was sold to micware Co., Ltd. in March 2021.

ArtSpark is a pure holding company that has under its umbrella operating companies that promote R&D and practical application of primarily graphics technologies and develop two businesses based on proprietary technologies—Creator Support and UI/UX—targeting customers around the world. Celsys runs the Creator Support business, through which it offers anime and manga production software CLIP STUDIO PAINT and e-book distribution solutions. Australian subsidiary Candera GmbH and Candera Japan are in charge of the UI/UX business, focused on a solutions business for LCD screens centered on in-vehicle systems using CGI Studio and UI Conductor.

	Celsys		Candera Japan
Main Business	Main products	Main businesses	Main products
Anime and manga production software	CLIP STUDIO PAINT RETAS STUDIO	UI development for embedded devices	CGI Studio exbeans UI Conductor
e-book distribution system for mobile phones	BS Reader BS Reader for Browser BS Reader 5		

Source: Shared Research based on company data

The ArtSpark Group intends to focus on winning orders for its proprietary IP in its Creator Support and UI/UX businesses, and make a strong push to build a proprietary IP-centered business. In contrast, HI Corp’s business mainly focuses on custom development, which is not in line with the Group’s proprietary IP-centered strategy, leading to the decision to sell the company.

##### Making Candera a subsidiary

In January 2019, ArtSpark acquired the shares of Socionext Embedded Software Austria GmbH (currently Candera GmbH), and made Candera a subsidiary. For more information on the purpose and background of the merger, see the New medium-term plan (FY12/19–FY12/23) section. Candera supplies scalable human machine interface (HMI) not reliant on hardware as well as CGI Studio, GUI (graphical user interface) design software.

### Establishes own base in human-centered design

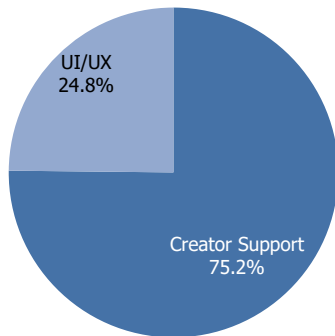
Technologies to display graphics are advancing spurred by a wider range of portable internet devices, and the profusion of consumer electronics devices like digital cameras, in-vehicle devices, electronic billboards and store information terminals. The popularity of the iPhone and iPad has increased demand for user-friendly devices over functions.

While general electronic devices have been made on the idea of function-centered design, the iPhone and iPad, which offer ease of use, are based on human-centered design. The UI (user interface design) and UX (user experience design) concept is key. The UI/UX business provides comprehensive solutions for development and implementation by combining user interface (connecting users to devices and software), with user experience (pleasure, ease of use and other experience from devices and software). Since function-centered design has been dominant in Japan, human-centered design has not yet taken root. However, the need for user-friendly operations is likely to increase as functions increase.

## Segments

The company's business segments are Creator Support, originally a business operated by Celsys, and UI/UX coming from Candera GmbH and Candera Japan. In FY12/20 (including results for HI Corp), Creator Support accounted for 75.2% of sales and UI/UX for 24.8%. Their respective shares of operating profit were 224.8% and -124.8%.

### Sales breakdown



Source: Shared Research based on company data

### Sales, profit, and margins by segment

(JPYmn)	Sales					Segment profit					Segment profit margin				
	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20
<b>New segments</b>															
Creator Support	2,161	2,413	2,957	3,617	4,807	196	300	472	693	1,463	9.1%	12.4%	16.0%	19.1%	30.4%
UI/UX	1,705	1,291	886	1,790	1,588	281	56	-67	-436	-812	16.5%	4.3%	-7.6%	-24.4%	-51.2%
Adjustments	-31	-68	-53	-26	-21	24	68	-30	-14	122	-	-	-	-	-
<b>Old segments</b>															
Content Solution	1,021	-	-	-	-	24	-	-	-	-	2.4%	-	-	-	-
Creator Support	1,140	-	-	-	-	172	-	-	-	-	15.1%	-	-	-	-
UI/UX	1,705	-	-	-	-	-281	-	-	-	-	-16.5%	-	-	-	-
Subtotal	3,867	3,704	3,843	5,408	6,394	-85	356	405	256	651	-2.2%	-	-	-	-
Adjustments	-31	-	-	-	-	585	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>3,836</b>	<b>3,636</b>	<b>3,790</b>	<b>5,381</b>	<b>6,374</b>	<b>501</b>	<b>424</b>	<b>375</b>	<b>242</b>	<b>773</b>	<b>13.0%</b>	<b>11.7%</b>	<b>9.9%</b>	<b>4.5%</b>	<b>12.1%</b>
% of total (excl. adjustments)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>New segments</b>															
Creator Support	55.9%	65.2%	76.9%	66.9%	75.2%	-	84.4%	116.7%	270.2%	224.8%	-	-	-	-	-
UI/UX	44.1%	34.8%	23.1%	33.1%	24.8%	-	15.6%	-16.7%	-170.2%	-124.8%	-	-	-	-	-
<b>Old segments</b>															
Content Solution	26.4%	-	-	-	-	-28.7%	-	-	-	-	-	-	-	-	-
Creator Support	29.5%	-	-	-	-	-202.5%	-	-	-	-	-	-	-	-	-
UI/UX	44.1%	-	-	-	-	331.2%	-	-	-	-	-	-	-	-	-

Source: Shared Research based on company data

Figures may differ from company materials due to differences in rounding methods.

From Q1 FY12/16, the company revised its business segmentation, integrating the Applications business with the UI/UX business (earnings booked under the UI/UX business). Year-on-year comparisons that follow are retroactively adjusted.

Adjustments to segment profit mainly comprise company-wide revenues not distributed to segments and company-wide expenses (net). Company-wide revenues are management consultancy fees paid by group subsidiaries; company-wide expenses are expenses related to group management.

## Creator Support: 75% of sales (67% in FY12/19)

The Creator Support business provides services and sells software and hardware related to the digital production of illustration, manga, and animation; it promotes research and development and the practical application of graphics technologies, and expands its product lineup in response to new content creation techniques and new devices. It comprises a B2C business that offers total support for creators and a B2B business that provides software and service expertise as solutions.

### B2C business

#### CLIP STUDIO PAINT (PRO, EX):

- ▶ Paint software that has achieved 10.0mn unit sales globally since it was launched in 2012 (as of end-December 2020).
- ▶ Top sales and market share in graphic software field: Consistently ranked No. 1 in the graphic software category of the BCN AWARD in 2015–2019 based on unit sales data from Amazon and mass retailers. With more than 30,000,000 users, it is the most utilized software on pixiv, one of the world's largest social networking platforms geared toward illustrators (Celsys estimate for January–December 2018 based on data provided by pixiv).
- ▶ Actively used by more than 50 educational institutions to develop creators that can immediately function as professional assets in graphic arts fields, including illustration, comics, animation, and design.

- ▶ Manga, illustration, and animation production software with various uses, such as monochrome and color drawings for printing on commercial magazines and manga for websites and digital devices. In addition to drawing and painting features for color illustrations, it has features that cover all production processes of manga including rough sketches, frame cuts, inking, background, effect, lettering and management of multiple pages. It is the world's first dedicated manga production software. (Compatible with both Windows and Mac.)
- ▶ Combines the company's expertise in 2D, 3D, and e-books to provide new value for creators.

- ▷ In the B2C business, the company provides graphic content production software such as the CLIP STUDIO PAINT series, software for the production of manga, illustration, and animation. The company also manages its own website CLIP STUDIO, which provides total support to creators producing illustrations, manga, animations or novels, offering comprehensive services to support their creative activities. As well as selling software, the company provides information creators need, such as support, how-to courses, and context introduction. According to the company, over 1.46mn creators are registered with the creative support site CLIP STUDIO (as of end-December 2019). Subsidiary Celsys is in charge of planning, development, and support of all software and services.
- ▷ The company sells the software products through the CLIP STUDIO website as well as through PC distributors and retailers, and receives usage fees from end users. In the Japanese market, its manga and animation software are de-facto standards among professionals and more than 90% of TV animations use its products.
- ▷ Accelerating global business is part of the company's growth strategy for CLIP STUDIO. ArtSpark has released multiple-language versions of CLIP STUDIO PAINT: English and Chinese versions in September 2013, French and Spanish versions in July 2014, a Korean version in May 2016, and a German version in September 2017. As a result, now nearly half of CLIP STUDIO sales are for non-Japanese versions. It also improved usability by ensuring functions that are linked up with IbisPaint, a popular painting app from Ibis Mobile Inc. offered only in Japanese, can be used in all available languages. The subscription version, which allows multiple PC installs with a single serial number, and CLIP STUDIO PAINT for iPad released in 2017 have performed well recently.
- ▷ The total shipment volume of CLIP STUDIO PAINT has topped 10.0mn units (as of end-FY12/20).

## B2B business

**CLIP STUDIO READER:** As the product allows users to browse e-books on web browsers, users do not need to download viewer applications to look around content at e-book store sites. A variety of content can be distributed: comics, novels and photo books.

In the B2B business, the company provides software and knowledge of services based on research and development of graphic technologies as solutions to companies. Sales come from royalties from companies and revenues for providing services under contract.

The core product is the CLIP STUDIO READER series of e-book viewers, developed by Celsys. The company has not unveiled a detailed sales breakdown, though it said that the BS Reader series accounted for 70–80% of sales and almost all the segment's profit. The segment also develops and sells (or leases out) e-book creation tool CLIP STUDIO LAYOUT e for processing manga and other publications for mobile devices, and develops and provides ComicDC, a data server for content distribution.

**CLIP STUDIO READER:** As the necessary software for browsing e-books, the company provides the product, or grants a license, to content providers, which distribute content to feature phone and smartphone users, and telecom carriers, and receives certain royalty rates depending on sales of content by using the viewer.

## Total solution for e-book distribution

- ▷ The company's subsidiary, Celsys, is a total solution vendor for e-book distribution, providing the e-book viewer CLIP STUDIO READER, website development support, data center operation outsourcing, and e-book content production support.

- ▷ The solutions offered by Celsys have been adopted by over 1,200 services, including one of Japan’s largest e-book sites, Mecha Comic (Amutus), as well as ComicFesta (WWWave), cmoa (NTTsolmare), TSUTAYA Musico (TSUTAYA), pixiv Comic (pixiv), and BookLive! Comic (BookLive) among other services, and has a proven track record as a commercial viewer for comics. In addition, more than 10 million traditional panel display content files, a feature of the CLIP STUDIO READER, are in circulation.
- ▷ CLIP STUDIO READER supports various display formats such as vertical scrolling, which is a format suitable for smartphones that show comics by scrolling vertically as if browsing a web page. For displaying text, CLIP STUDIO READER adopts the reflow method to display contents such as novels and light novels in EPUB format in a layout optimized for the device’s screen size, and also helps reduce the size of the distributed file. In addition to vertical scrolling and text display, it supports display formats such as page display and traditional panel display that are suitable for a variety of devices.
- ▷ Another benefit of CLIP STUDIO READER is that it helps reduce distribution costs, such as server operation costs, by compressing images without loss in quality, enabling high-quality content to be distributed in small file sizes. In addition, the viewer’s UI and functions can be customized as needed, enabling customers to change the UI to match their e-bookstore’s brand or add functions for specific use cases. In addition to e-bookstores, the viewer can be used in a variety of different ways, including short-term use in PR such as for sales promotion campaigns, sales of comics as part of a music distribution site, and for distribution of submitted works on a work posting site.
- ▷ For content production support, the company offers a full range of support, including providing production tools, accepting production requests, and introducing content production companies.

## UI/UX: 25% of sales (33% in FY12/19)

**CGI Studio:** Core product of Candera. Scalable HMI not reliant on hardware as well as GUI design software platform for in-vehicle equipment. Candera mainly supplies the product to European car manufacturers on an OEM basis.



**exbeans® UI Conductor:** A comprehensive suite of software tools for developing embedded HMI. Project data that has been authored with material placement, interaction settings, and animation settings on the tool can be deployed for mass development in the production environment. Updates are made as needed to meet market needs, and the latest version features a “view model” and “view state editor” to improve the expressiveness of the UI and 3D performance.

- ▷ The UI/UX business focuses on the development of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of HMI), primarily in fields relating to vehicles (automobiles and motorcycles). It licenses the use of its products as UI solutions for digital consumer electronics devices such as in-vehicle equipment and digital cameras, as well as mobile devices such as smartphones, and earns licensing revenue.
- ▷ In recent years, ArtSpark has worked to shift its business model away from primarily focusing on winning orders for its development services (as it had done to scale up quickly), toward winning orders for its proprietary IP over the past few years. In this way, it has aimed to reduce production costs and increase profits. In FY12/16, ArtSpark sold HI Corp. Kansai as part of an effort to revise its operations.
- ▷ The company’s strength in the UI/UX business is in a product lineup supported by provision of UI design by designers and endorsed by de-facto standard 3D graphics technologies. Core products include:
  - **CGI Studio:** a software development platform for in-vehicle equipment.

- **exbeans UI Conductor:** provides a UI development environment for embedded devices.
- **Higlyph:** a scalable font rendering engine with an emphasis on design; provides high speeds and rendering even on embedded devices.
- ▷ ArtSpark develops UI solutions-related products for different fields. In the printer field, the company has developed a product that has been installed on total over 10.0mn printers produced by Seiko Epson Corp. In addition, the company has developed UIs for the SLR cameras of Olympus Imaging Corp, all-in-one printers of Brother Industries (TSE1: 6448) and Clarion Co Ltd (TSE1: 6796) touch panel audio-display screens for Suzuki Motor Corp (TSE1: 7269) K-cars.
- ▷ The company receives revenue from licensing those graphics-related products as UI solutions. It also receives revenue from the development, maintenance and support of custom UI design, software development and implementation.

K-car: A Japanese car category—literally “light car”. Engine displacement limited to 660cc. The number plates of private cars have a yellow base (black base for commercial vehicles).

- ▷ In January 2019, ArtSpark acquired the shares of Socionext Embedded Software Austria GmbH (currently Candera GmbH), and made Candera a subsidiary. For more information on the purpose and background of the merger, see the medium-term plan (FY12/19–FY12/23) section. Candera supplies scalable human machine interface (HMI) not reliant on hardware as well as CGI Studio, GUI (graphical user interface) design software.
- ▷ In June 2019, ArtSpark established subsidiary company Candera Japan Inc. Candera GmbH, an Austrian firm, and Candera Japan focus mainly on the development of CGI Studio and exbeans UI Conductor, which are proprietary IP products.
- ▷ In November 2020, ArtSpark decided to transfer all its shares in HI Corp to Candera Japan with the aim of consolidating its domestic UI/UX business.
- ▷ In March 2021, ArtSpark transferred all shares of HI Corp, a subsidiary of Candera Japan Inc. to micware Co., Ltd.

## Production and sales

(JPYmn)	Segment	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20	YoY
Production	<b>Creator Support (new seg.)</b>	<b>1,663</b>	<b>1,623</b>	<b>1,672</b>	<b>1,549</b>	<b>1,540</b>	<b>1,808</b>	<b>1,983</b>		
	Content Solution	829	820	890	744	-	-	-		
	Creator Support (old seg.)	833	803	782	805	-	-	-		
	<b>UI/UX</b>	<b>1,267</b>	<b>1,280</b>	<b>1,493</b>	<b>884</b>	<b>738</b>	<b>819</b>	<b>1,146</b>		
	Total	2,930	2,904	3,182	2,434	2,279	2,627	3,129		
Purchase	<b>Creator Support (new seg.)</b>	<b>212</b>	<b>115</b>	<b>116</b>	<b>101</b>	<b>117</b>	<b>142</b>	<b>104</b>		
	Content Solution	102	49	49	31	-	-	-		
	Creator Support (old seg.)	110	66	67	70	-	-	-		
	<b>UI/UX</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>		
	Total	212	115	116	101	117	142	104		
Sales	<b>Creator Support (new seg.)</b>	<b>1,920</b>	<b>1,869</b>	<b>2,119</b>	<b>2,161</b>	<b>2,413</b>	<b>2,957</b>	<b>3,617</b>	<b>4,807</b>	<b>32.9%</b>
	Content Solution	1,283	1,118	1,155	1,021	-	-	-	-	-
	Creator Support (old seg.)	637	751	965	1,140	-	-	-	-	-
	<b>UI/UX</b>	<b>1,789</b>	<b>2,001</b>	<b>2,070</b>	<b>1,705</b>	<b>1,291</b>	<b>886</b>	<b>1,790</b>	<b>1,588</b>	<b>-11.3%</b>
	Adjustments	-23	-44	-33	-31	-68	-53	-26	-21	-
	Total	3,685	3,826	4,157	3,836	3,636	3,790	5,381	6,374	18.4%

Source: Shared Research based on company materials

From Q1 FY12/16, the company revised its business performance management categories, integrating the Applications business with the UI/UX business (figures for the businesses are shown under the UI/UX business). Additionally, in FY12/17 the company consolidated Content Creation and Creator Support into a single Creator Support category. Figures for years prior to FY12/16 are also retroactively adjusted in the table above. Sales figures are adjusted for intragroup transactions.



## Personnel

### Employees per segment

Segment	Number of employees (consolidated)						
	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20
Creator Support	84	87	88	84	100	134	
UI/UX	129	54	46	69	61	102	
Company-wide	19	25	22	14	15	16	
<b>Total</b>	<b>232</b>	<b>166</b>	<b>156</b>	<b>167</b>	<b>176</b>	<b>252</b>	

Source: Shared Research based on company data

Figures for the Creator Support segment from FY12/14–16 are the totals of the Content Solution and Creator Support segments.

## Profitability snapshot, financial ratios

Consolidated (JPYmn)	FY03/10	FY03/11	FY03/12	FY12/12	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20
	Simple sum	Simple sum	Simple sum	Cons. 9mo.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.
Sales	4,954	4,932	4,565	2,633	3,685	3,826	4,157	3,836	3,636	3,790	5,381	6,374
HI	2,259	2,210	1,863	-	-	-	-	-	-	-	-	-
Celsys	2,696	2,721	2,702	-	-	-	-	-	-	-	-	-
Gross profit	2,136	2,149	1,694	411	1,143	1,333	1,279	1,565	1,602	1,787	2,303	3,132
HI	805	843	503	-	-	-	-	-	-	-	-	-
Celsys	1,331	1,305	1,191	-	-	-	-	-	-	-	-	-
SG&A expenses	1,593	1,525	1,468	1,079	1,212	1,234	1,190	1,064	1,178	1,412	2,061	2,359
HI	738	728	734	-	-	-	-	-	-	-	-	-
Celsys	856	797	733	-	-	-	-	-	-	-	-	-
Operating profit	543	623	227	-667	-69	100	88	501	424	375	242	773
YoY	63.2%	14.8%	-63.6%	-	-	-	-	-	-	-	-	-
HI	68	115	-231	-	-	-	-	-	-	-	-	-
Celsys	475	508	458	-	-	-	-	-	-	-	-	-
GPM	43.1%	43.6%	37.1%	15.6%	31.0%	34.9%	30.8%	40.8%	44.1%	47.2%	42.8%	49.1%
HI	35.7%	38.2%	27.0%	-	-	-	-	-	-	-	-	-
Celsys	49.4%	48.0%	44.1%	-	-	-	-	-	-	-	-	-
SG&A ratio	32.2%	30.9%	32.1%	41.0%	32.9%	32.2%	28.6%	27.7%	32.4%	37.3%	38.3%	37.0%
HI	32.7%	32.9%	39.4%	-	-	-	-	-	-	-	-	-
Celsys	31.7%	29.3%	27.1%	-	-	-	-	-	-	-	-	-
OPM	11.0%	12.6%	5.0%	-25.3%	-1.9%	2.6%	2.1%	13.0%	11.7%	9.9%	4.5%	12.1%
HI	3.0%	5.2%	-12.4%	-	-	-	-	-	-	-	-	-
Celsys	17.6%	18.7%	16.9%	-	-	-	-	-	-	-	-	-

Source: Shared Research based on company data  
 Figures may differ from company materials due to differences in rounding methods.  
 The company was formed from a merger of Celsys, Inc. and HI Corp. in April 2012, and thus FY12/12 is a nine-month period.  
 Figures from FY03/12 and earlier are the simple sum of the two companies' results.

The table above shows the historical performance of ArtSpark's two predecessor companies, HI Corp and Celsys. The increasing popularity of smartphones in Japan from 2010 onward significantly affected results at both companies. HI's main product was a 3D rendering engine for feature phones. This product generated licensing fees for the engine when phones were shipped, so the business model was affected by rising smartphone sales and the accompanying drop in shipments of feature phones. Celsys obtained revenue mainly from e-book browser distribution solutions for feature phones. Revenue was in the form of license fees paid by content holders when users viewed e-book browser. As such the impact of smartphone diffusion on Celsys was less than for HI. However, the drop in the number of feature phone users decreased the number of e-book browser viewers, affecting Celsys' performance. Both companies focus on software development, a labor-intensive business. The need to develop software for smartphones has driven up CoGS at both companies, resulting in falling gross margins from 2010 onward. HI temporarily shored up earnings by selling assets in unprofitable businesses, but declining sales still meant the company began booking an operating loss in FY12/12.

Amid such conditions, the two companies established a joint holding company on April 2, 2012, in a bid to gain a competitive edge by combining their technologies and customers. Since the merger, the new company—ArtSpark Holdings—has focused on tapping into new markets, mainly in the Creator Support and UI/UX segments, and improving margins with tight project management. The company initially booked an operating loss, partly owing to upfront investment. But its expansion into new businesses is paying off, with the company moving back into the black in FY12/14. However, the UI/UX business reverted to generating operating losses again from FY12/18 onward.

## Strengths and weaknesses

### Strengths

- ▶ **Technological expertise from creating products for feature phones:** ArtSpark enjoys a 90%-plus market share in 3D-rendering software and image distribution solutions for feature phones. Feature phones have limited memory and processing power, so they require light software. The experience that the company has built up in creating these programs will lend it a competitive advantage in developing programs for other devices with low processing power.
- ▶ **Celsys' large global share in application software for end users:** Celsys, one of the two companies merged to create ArtSpark, held a large market share in applications designed for end users. According to the company, ArtSpark tops global shares in the field of manga, illustration, and animation production software.
- ▶ **Candera's track record developing proprietary UI/UX and IP software products:** The strengths of Candera are in proprietary UI/UX and IP software for manufacturers. More specifically, its strengths lie in HMI (Human Machine Interface) and GUI (Graphical User Interface) design software CGI Studio and UI authoring software products exbeans UI Conductor (used to develop UI for embedded devices), which is a foundation for HMI.

### Weaknesses

- ▶ **High marketing cost of Creator Support business:** In the Creator Support segment, the company operates a B2C business providing creators a total support service through product offerings such as manga, illustration, and animation production software CLIP STUDIO PAINT and animation production software RETAS STUDIO. Since it is difficult to gauge the market size for these products or clearly identify the target customer base, associated marketing cost tends to get higher as a result.
- ▶ **Major performance fluctuations in the UI/UX business:** Over the past few years, the company has managed to shift its UI/UX business model toward handling proprietary IP products. That said, the process leading up to licensing (clients' adoption of the product) is significantly time consuming, and it takes another few years for the company to receive royalties from mass production. Even in the mass production stage, since production volume relies heavily on the manufacturers' production plan, earnings tend to fluctuate significantly. To narrow the range of fluctuation, ArtSpark must develop highly competitive products that match client needs and can be adopted repeatedly by clients for use in mass production.
- ▶ **Time-consuming and costly to add or revise functions:** In both the Creator Support and UI/UX businesses, the company responds to client requests for complex revisions and upgrades. Adding or upgrading functions to products can be time-consuming and costly. In the software development business, fixed cost is inherently high, and operating leverage also tends to be high.

## Historical performance and financial statements

### Historical performance

#### Cumulative Q3 FY12/20 results (out November 6, 2020)

##### Overview

- ▷ Cumulative Q3 FY12/20 results: The company reported sales of JPY4.7bn (+15.3% YoY), operating profit of JPY633mn (+159.8% YoY), recurring profit of JPY616mn (+166.4% YoY), and a net loss attributable to owners of the parent of JPY651mn (versus net income in cumulative Q3 FY12/19 of JPY221mn). The company focused on building a software IP-centric business and worked to improve business efficiency through strategic allocation of its development resources among other measures.
- ▷ Progress: The company revised its full-year earnings forecast on November 6, 2020. In cumulative Q3, sales reached 74.2% of revised FY12/20 forecast (sales in cumulative Q3 FY12/19 reached 75.2% of FY12/19 results), operating profit reached 112.8% (100.7%), and recurring profit reached 115.1% (100.5%). Net loss attributable to owners of the parent were JPY651mn (the company revised forecast is for net loss of JPY761mn).
- ▷ Sales growth of 15.3% YoY: The UI/UX business struggled amid sluggish demand and a downturn in production volume in the automobile industry. On the other hand, in the Creator Support business, demand was firm for the products and solutions supplied by subsidiary Celsys that use digital technology to support content creation and viewing, which contributed to firm sales in Japan and overseas.
  - Sales in the Creator Support business amounted to JPY3.5bn (+30.2% YoY).
  - Sales in the UI/UX business amounted to JPY1.2bn (-14.4% YoY).
- ▷ Operating profit growth of 159.8% YoY: Alongside favorable sales in the Creator Support business, operating profit improved on the booking of highly profitable sales, including in CLIP STUDIO PAINT subscriptions.
  - Operating profit in the Creator Support business was JPY1.2bn (+97.9% YoY).
  - Operating loss in the UI/UX business was JPY637mn (versus loss of JPY316mn in cumulative Q3 FY12/19). Operating loss includes goodwill amortization of JPY334mn on subsidiary acquisition.
- ▷ Net loss of JPY651mn: Factoring in the impact from COVID-19 on the industry, the company in Q3 recorded impairment losses of JPY1.1bn on a portion of recognized goodwill and deducted JPY202mn in tax expenses.

##### Company forecast for FY12/20 (revised on November 6, 2020)

- ▷ Sales: JPY6.3bn (previously JPY5.8bn)
- ▷ Operating profit: JPY561mn (previously JPY304mn)
- ▷ Recurring profit: JPY535mn (previously JPY271mn)
- ▷ Net loss: JPY761mn (net income in FY12/19 of JPY256mn)

##### Reason for revision

- The company expects sales to exceed its prior forecast, for while the UI/UX business struggled amid sluggish demand and a downturn in production volume in the automobile industry, the Creator Support business saw firm demand for the products and solutions supplied by subsidiary Celsys that use digital technology to support content creation and viewing, which contributed to firm sales in Japan and overseas.
- The company expects operating profit and recurring profit to exceed its prior forecast amid favorable sales in the Creator Support business and a strong improvement in operating profit on the booking of sales in highly profitable CLIP STUDIO PAINT subscriptions.
- At the net income attributable to owners of the parent level, the company in light of the impact on the industry from COVID-19 recorded impairment losses of JPY1.1bn on a portion of recognized goodwill in Q3.

##### Creator Support

- ▷ Segment sales\*: JPY3.5bn (+30.2% YoY)
- ▷ Operating profit: JPY1.2bn (+97.9% YoY)

- ▷ In cumulative Q3 FY12/20, CLIP STUDIO PAINT software series (supplied by subsidiary Celsys for the digital creation of comics, illustrations, and animation) surpassed 8mn units shipped across the world since its launch in 2012.
- ▷ The company simultaneously launched CLIP STUDIO PAINT for Galaxy for use in Galaxy-series mobile products on a global basis on the Galaxy Store in August 2020. Moreover, CLIP STUDIO PAINT was offered pre-installed on Galaxy Tab S7 products, which attracted 2.5 times as many pre-orders as their predecessors and began shipping the same month. CLIP STUDIO PAINT for Galaxy products uses a subscription-based billing model, which improves profitability for the company while ensuring service continuity.
- ▷ Toei Animation (JASDAQ: 4816) adopted the company's CLIP STUDIO PAINT for iPad as its digital drawing software. At the same time, ArtSpark started offering volume licensing plans for businesses using the iPad version of CLIP STUDIO PAINT.
- ▷ The company moved to expand the number of users, including by offering through the California Department of Education CLIP STUDIO PAINT DEBUT for free for six months to all of roughly 2mn students and teachers at about 1,600 high schools in the state who applied for the use of service.
- ▷ In July 2020, the company implemented a major upgrade for CLIP STUDIO READER, an e-book viewer, which features improved customizability and allows service providers to add functions in line with the content of services offered.

## UI/UX

- ▷ Segment sales: JPY1.2bn (-14.4% YoY)
- ▷ Operating loss\*: JPY637mn (operating loss of JPY316mn in Q3 FY12/19)  
\*Operating loss includes goodwill amortization of JPY334mn on subsidiary acquisition
- ▷ ArtSpark is focusing on development and sale of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of HMI).
- ▷ The automotive industry, which represents the UI/UX business's largest pool of customers, faces a challenging operating environment with sluggish demand and lower production volumes due to the COVID-19 outbreak. While stimulus measures in a variety of countries have contributed to a recovery in production among manufacturers, the company is also developing new technologies and cultivating new customers to further strengthen the UI/UX business.
- ▷ Starting in Q3, CGI Studio officially began offering support for rendering operations available on all cutting-edge devices, including multi-core for Cypress' Traveo II graphic MCUs, which are the newest products in the Traveo II automotive MCU line-up.
- ▷ The latest version of CGI STUDIO 3.9, which was released in summer 2020, includes a preview version of an AI-based Smart Photoshop Importer that automatically processes UI artwork and improves usability of HMI creation. The product was featured in US IT site Embedded Computing Design, which focuses on embedded software design and development stories.
- ▷ At the electronica China 2020 event held in Shanghai, Fujitsu Electronics held a demonstration of CGI Studio installed on hardware manufactured by Socionext.

## 1H FY12/20 results (out August 7, 2020)

### Overview

- ▷ 1H FY12/20 results: The company reported sales of JP3.0bn (+18.7% YoY), operating profit of JPY359mn (+56.4% YoY), recurring profit of JPY348mn (+58.7% YoY), and net income attributable to owners of the parent of JPY208mn (+21.2% YoY).

- ▷ Results vs. forecast: For 1H FY12/20, the company targeted sales of JPY2.8bn, operating profit of JPY13mn, recurring profit of JPY1mn, and net income attributable to owners of the parent of JPY9.0mn. Sales exceeded the company's plan by 8.9%, and in terms of profits, the actual results were significantly ahead of expectations.
  - In the Creator Support business, demand for products and solutions that use digital technology to support content creation and viewing grew worldwide due to the COVID-19 outbreak, and sales came in above expectations as a result. Sales in the Creator Support business tend to be seasonally weaker in Q2 than in Q1, but actual sales for Q2 (April to June 2020) were robust at JPY1.2bn. In addition, sales exceeded the level of JPY 1.0bn in Q1 (January to March 2020). Shelter-in-place demand was greater than expected, said the company. On the other hand, sales and profit in the UI/UX business was below the company's expectations, reflecting the suspension of activity at all automobile production plants in the US for about 50 days from March to May 2020.
  - In addition to higher sales, profitability improved as the company rolled out the same subscription model used for the iPad and iPhone-compatible versions of CLIP STUDIO PAINT to Windows and MacOS systems from April 2020 (Q2 onward).
- ▷ Progress: In 1H, sales reached 51.6% of FY12/20 full-year company forecast (sales in 1H FY12/19 reached 47.1% of FY12/19 results), operating profit reached 118.0% (94.8%), recurring profit reached 128.5% (95.3%), and net income attributable to owners of the parent reached 81.1% (70.9%).
- ▷ Sales growth of 18.7% YoY: Sales rose by 25.7% YoY in the Creator Support business (sales to external customers), and by 1.0% YoY in the UI/UX business (sales to external customers).
- ▷ Operating profit growth of 56.4% YoY: Operating profit in the Creator Support business increased by 89.2% YoY as noted above, and the UI/UX business recorded an operating loss of JPY469mn (versus an operating loss of JPY156mn in 1H FY12/19). The automotive industry, which represents the UI/UX business's largest pool of customers, faces a challenging operating environment with sluggish demand and lower production volumes due to the COVID-19 outbreak. Under these circumstances, the company is developing new technologies and cultivating new customers to further strengthen the UI/UX business.
- ▷ The 21.2% YoY increase in net income attributable to owners of the parent was due to the company deducting JPY141mn in tax expenses, among other factors.
- ▷ Company forecast: No change to full year plan. 1H FY12/20 sales and profits came in above the 1H targets; operating and recurring profits are trending above full-year plan. However, in addition to the uncertainty over the impact of the pandemic (positive for the Creator Support business, negative for the UI/UX business), the company's business tends to fluctuate from quarter to quarter. Therefore, the full-year plan remains unchanged. In Q4 each year the company typically invests in advertising and sales promotion in anticipation of growth the following year.

## Creator Support

- ▷ Segment sales\*: JPY2.3bn (+25.7% YoY)
- ▷ Operating profit: JPY787mn (+89.2% YoY)

\*Sales to external customers

- ▷ 1H results in this business underpinned the growth that enabled the company to exceed its plan.
- ▷ Demand for products and solutions that use digital technology to support content creation and viewing grew worldwide due to the global COVID-19 outbreak.

- ▷ On April 9, 2020, the company rolled out the same subscription model used for its iPad and iPhone-compatible versions of CLIP STUDIO PAINT to Windows and MacOS systems, ensuring service continuity and monetization. Users can also choose to purchase the software outright as previously in PC environments such as Windows and MacOS.
- ▷ The company released an interview with Kadokawa Dwango Educational Institute's N High School covering the reasons behind the decision to introduce CLIP STUDIO PAINT to the school's comic/manga courses and art club, as well as the various ways the software is being used.
- ▷ In response to recent societal developments, the company worked to expand its online support services for commercial manga production through its manga sharing and viewing service, CLIP STUDIO SHARE\*, in an effort to expand its user base. Previously aspiring manga artists had to physically deliver their work to the publishers, although compressed files and emails were used occasionally. CLIP STUDIO SHARE enables work to be submitted online. With CLIP STUDIO not only is the quality of the software a key factor for users, but so is the fact that it attracts a wide variety of work. Users appreciate the fact that a community of comic artists and illustrators use the software (it is a forum for communication). In addition to improving user convenience, the company added a service to support the online production of commercial manga as a way of further enhancing communication opportunities.
- ▷ The eBook viewer CLIP STUDIO READER has been adopted by around 100 providers and has now been adopted by Comic Deli, an eBook distribution service operated by Nexture Inc.

\* CLIP STUDIO SHARE enables users to share their works, such as manga and illustration collections, and enables other users to see these via an easy-to-use viewer (it is not a posting site). It can be accessed via a URL shared on Twitter, for example, or a link embedded in a blog.

## UI/UX

- ▷ Segment sales: JPY767mn (+1.0% YoY)
- ▷ Operating loss: JPY469mn (operating profit of JPY156mn in 1H FY12/19)
- ▷ The operating loss is largely driven by the posting of JPY226mn in goodwill amortization associated with an acquisition.
- ▷ ArtSpark is focusing on development and sale of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of HMI).
- ▷ The automotive industry, which represents the UI/UX business's largest pool of customers, faces a challenging operating environment due to sluggish demand and lower production volumes stemming from factory shutdowns that lasted for about 50 days (as stated above). Under these circumstances, the company is developing new technologies and cultivating new customers to further strengthen the UI/UX business.
- ▷ In 1H FY12/20, the company equipped CGI Studio with Monotype (the world largest type foundry)'s iType® (font engine) in May 2020. Additionally, in June 2020, the company released CGI Studio 3.9 with an innovative AI Importer to improve usability (enables development via simple procedures rather than building complex programs).

## Q1 FY12/20 results (out May 8, 2020)

### Overview

- ▷ Q1 FY12/20 results: The company reported sales of JP1.4bn (+22.3% YoY), operating profit of JPY143mn (-44.0% YoY), recurring profit of JPY140mn (-44.7% YoY), and net income attributable to owners of the parent of JPY75mn (-63.1% YoY). The

44.0% YoY drop in operating profit was primarily due to JPY117mn in goodwill amortization associated with the acquisition of subsidiary Candera GmbH the previous year.

- ▷ Progress: In Q1, sales reached 52.3% of the 1H FY12/20 plan (compared with 46.5% in Q1 FY12/19 of 1H FY12/19 results), operating profit reached JPY143mn while the 1H plan calls for JPY13mn (104.0% in Q1 FY12/19), recurring profit reached JPY140mn while the 1H plan calls for JPY1mn (106.6% in Q1 FY12/19), and net income attributable to owners of the parent reached JPY75mn while the 1H plan calls for JPY9mn (115.1% in Q1 FY12/19). In Q1, sales reached 24.8% of FY12/20 full-year company forecast (sales in Q1 FY12/19 reached 21.9% of FY12/19 results), operating profit reached 47.2% (105.9%), recurring profit reached 51.5% (109.6%), and net income attributable to owners of the parent reached 29.2% (83.8%).
- ▷ Company forecast: The company has not amended its forecasts for 1H and full-year FY12/20. According to the company, in the Creator Support business, sales of the downloadable version of CLIP STUDIO PAINT (software for creating comics, illustrations, and animation) for iPad and other platforms have been strong, and improvement in profitability has been notable. However, the company states that it must keep a close eye on future trends in the UI/UX business because its customers in the automotive field have been impacted by the COVID-19 pandemic.
- ▷ Sales growth of 22.3% YoY: Sales rose by 13.6% YoY in the Creator Support business (sales to external customers), and by 49.5% YoY in the UI/UX business (sales to external customers).
- ▷ Operating profit decline of 44.0% YoY: Operating profit in the Creator Support business increased by 30.2% YoY, and the UI/UX business recorded an operating loss of JPY201mn (versus an operating profit of JPY40mn in Q1 FY12/19) due in part to goodwill amortization associated with the acquisition of subsidiary Candera GmbH during the previous year. The company focused on building a software IP-centric business, and worked to improve business efficiency through strategic allocation of its development resources among other measures.
- ▷ Net income attributable to owners of the parent decline of 63.1% YoY: The YoY drop was due to the company booking tax expenses of JPY65mn, among other factors.

### Creator Support

- ▷ Segment sales\*: JPY1.0bn (+13.6% YoY)
- ▷ Operating profit: JPY312mn (+30.2% YoY)

\*Sales to external customers

- ▷ OPM in Creator Support rose by 4.5pp, from 26.3% in Q1 FY12/19 to 30.8% in Q1 FY12/20. This increase was partly due to higher overall segment sales and strong sales of the downloadable version of CLIP STUDIO PAINT for iPad (launched in April 2018).
- ▷ Since its launch in 2012, the CLIP STUDIO PAINT series topped 7mn units shipped across the world.
- ▷ A license allowing the use of CLIP STUDIO PAINT PRO free of charge for up to six months has been provided to the whole world through inclusion in a bundle with the Wacom One, released by Wacom in January 2020. Given that teleworking and home-study measures are being put in place throughout the world in response to the COVID-19 pandemic, the company is providing CLIP STUDIO PAINT EX three-month licenses, allowing home use for businesses and educational institutions with CLIP STUDIO PAINT Volume Licenses, for users who are unable to use their CLIP STUDIO PAINT license at home.
- ▷ The eBook viewer CLIP STUDIO READER can now be used for reading on Twitter timelines.

### UI/UX

- ▷ Segment sales: JPY429mn (+49.5% YoY)



- ▷ Operating loss: JPY201mn (operating profit of JPY40mn in Q1 FY12/19)
- ▷ The operating loss is largely driven by the posting of JPY117mn in goodwill amortization associated with the acquisition of subsidiary. The company is striving to decrease operating loss in the UI/UX business as much as possible and will endeavor to quickly generate synergy with Candera (acquired in FY12/19).
- ▷ ArtSpark is focusing on development and sale of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of HMI).
- ▷ Austria-based overseas subsidiary Candera GmbH and Japan-based subsidiary Candera held exhibitions at events for manufacturers and technology providers that use applications in the automotive-related industry in various countries. There, the company showcased leading technologies in automotive and embedded human machine interface (HMI) design. The company held an exhibition at the 12th Automotive World (Tokyo), where it gave the first public demonstration of Candera Link, an in-house developed product. Candera Link is a remote rendering service that allows platform-independent data and service to be shared by multiple clients (IVI systems, Cluster, AR HuD, smartphones, etc.). The company also exhibited at Embedded World 2020, an international exhibition of embedded technologies held in February 2020, where, in combination with innovative HMI solutions in the field of embedded design, it showed integrated cockpit solutions for automobiles, and the newly developed home appliance solution Smart Oven UI.
- ▷ Candera GmbH has been consolidated from Q2 FY12/19, and was not included in Q1 FY12/19 results.

## Full-year FY12/19 results (out February 14, 2020)

### Overview

- ▷ Full-year FY12/19 results: The company reported consolidated sales of JPY5.4bn (+42.0% YoY), operating profit of JPY242mn (-35.5% YoY), recurring profit of JPY230mn (-35.6% YoY), and net income of JPY241mn (-27.7% YoY). The 35.5% (JPY133mn) decline in operating profit is due primarily to the booking of goodwill amortization of JPY351mn in relation to subsidiary Candera GmbH, acquired in FY12/18.
- ▷ Versus company forecast: Results ended in line with the revised company forecast\* issued on February 12, 2020.
- ▷ Sales +42.0% YoY: Sales were up 22.3% YoY at the Creator Support business (sales to external customers), and up 102.1% at the UI/UX business (sales to external customers).
- ▷ Operating profit -35.5% YoY: The decline was primarily due to posting JPY351mn in goodwill amortization associated with the acquisition of subsidiary Candera GmbH the previous year. If this effect were excluded, operating profit would have been up 58.2% YoY. Operating profit in the Creator Support business increased by 46.7% YoY, and the UI/UX business recorded an operating loss of JPY436mn (versus an operating loss of JPY67mn in FY12/18). The company focused on building a software IP-centric business, and worked to improve business efficiency through strategic allocation of its development resources among other measures.

#### Revised company forecast for FY12/19

- ▷ Sales: JPY5.4bn (previously JPY5.2bn)
- ▷ Operating profit: JPY241mn (previously JPY256mn)
- ▷ Recurring profit: JPY230mn (previously JPY204mn)
- ▷ Net income: JPY241mn (previously JPY70mn)

#### Reason for revision

- ▷ The sales forecast was revised upward to JPY5.4bn as sales in the Creator Support business exceeded initial forecast.
- ▷ Operating profit was revised down to JPY241mn as the company completed the accounting treatment of goodwill, confirming a JPY205mn increase in goodwill from the Candera acquisition. Goodwill amortization accordingly increased by JPY31mn to JPY350mn.
- ▷ Recurring profit was revised up to JPY230mn as interest payments and forex losses were less than initially forecast.

- ▷ Net income attributable to owners of the parent was revised upward to JPY241mn as tax effects, explained below, were applied.

**Regarding booking of income taxes–deferred**

- ▷ With the completion of the accounting treatment of goodwill (noted above), the company reviewed the asset allocation pertaining to subject goodwill, and after applying the statutory tax rate to the difference that resulted, it posted in its consolidated financial statements JPY94mn as deferred tax liabilities and income taxes–deferred.
- ▷ Further, revaluation of tax effects for the overall group including overseas subsidiaries resulted in bottom-line increase of JPY76mn versus initial forecast.

**Creator Support**

- ▷ Segment sales: JPY3.6bn (+22.3% YoY)
- ▷ Operating profit: JPY693mn (+46.7% YoY)
- ▷ Since its launch in 2012, the company’s CLIP STUDIO PAINT software series (for the digital creation of comics, illustrations, and animation) has shipped more than 6mn units across the world, thanks to its availability across a wide range of platforms, including the iPad. The developer of CLIP STUDIO PAINT, ArtSpark subsidiary Celsys, Inc., was also named the No. 1 manufacturer in the BCN Ranking’s graphic software category (announced by BCN Inc.) by unit sales volume in 2019; this represents its fourth win in this category, the last win being in 2017.
- ▷ The company promoted the enhancement of overseas services and began providing 400 types of how-to guides in six languages, English, Chinese (traditional), Korean, French, German, and Spanish.
- ▷ The company reported a total of 1,400 entries and 639 participating schools in 67 countries/regions in the International Comic/Manga School Contest sponsored by Celsys.
- ▷ The e-book solution CLIP STUDIO READER supports the distribution of WEBTOONS (content created with a portrait-page orientation for viewing on smartphone and PC), which is growing in presence in recent years. The solution has been implemented in the services of Amutus Corporation, the operator of the e-comic distribution service Mecha Comic, which boasts one of the largest numbers of users in the domestic e-book market.
- ▷ Kodansha Ltd. started distributing e-comics using CLIP STUDIO READER’s vertical scrolling and traditional panel display. CLIP STUDIO PAINT software for creators producing manga, illustration, and animation was newly equipped with a “pose scanner” that utilizes AI (deep learning) technology. The pose scanner can be used to read the pose of a person in a photo and apply it to a 3D drawing figure or character. Going forward, the company plans to continue actively working to add more functions that make use of machine learning.
- ▷ The company strengthened its global partnership with Wacom Co., Ltd., which is known in the pen tablet field for creators across the world. Working together, the two companies launched a sales campaign offering a package deal featuring two types of Wacom Contiq drawing tablets (for illustration, manga art, and fan art) and a 12-month license to CLIP STUDIO PAINT PRO 12.
- ▷ The company conducted a global simultaneous release of an iPhone version of CLIP STUDIO PAINT that installs all of the features of CLIP STUDIO PAINT so that the user can use the same features as the Windows/macOS/iPad versions. With the company’s development of a new user interface for smartphones, users now have the same environment for graphic content creation on iPhones as they do on other devices. Already, the app has become the most-downloaded free app in the App Store’s entertainment category. Just as the iPad-compatible version of CLIP STUDIO PAINT has consistently been the number-one downloaded app under the App Store’s entertainment category since its release in 2007, the iPhone-compatible version of CLIP STUDIO PAINT will also use a subscription model that will allow the company to monetize the new app and sustain related services.

## UI/UX

- ▷ Segment sales: JPY1.8bn (+102.1% YoY)
- ▷ Operating loss: JPY436mn (versus loss of JPY67mn in FY12/18)
- ▷ The operating loss was largely driven by the JPY200mn in goodwill amortization booked in connection with the acquisition of Candera GmbH (discussed below).
- ▷ ArtSpark is focusing on development and sale of self-developed IP products such as software development platform for in-vehicle equipment, CGI Studio, and UI-authoring-software products, exbeans UI Conductor (a foundation of human-machine interface or HMI).
- ▷ In January 2019, in order to strengthen development and sales capabilities in the UI/UX business, ArtSpark acquired the shares of Candera and made it a consolidated subsidiary (see discussion below for further details). Candera's HMI and GUI design software, CGI Studio, is supplied to OEM customers, mainly in Germany, and to other major European car manufacturers. This acquisition will improve the competitiveness of the company's IP products as well as create synergies. More specifically, with its CGI Studio platform (which provides software services in the both the HMI and embedded software fields), the company will be providing support services for clients developing software for electronic instrument clusters in automobiles, heads-up displays (HUD), and in-vehicle infotainment systems (including information systems such as car navigation systems as well as entertainment systems). Since the acquisition date was deemed to be March 31, Candera was consolidated only in the balance sheet for Q1, and its results were not reflected in the company's consolidated income statement for Q1 FY12/19. Candera was consolidated in the income statement starting in Q2.
- ▷ Established in June 2019 as a wholly owned subsidiary of Candera Japan, Candera's role is to provide marketing, development, and support services for the Japanese and Asian operations of Candera GmbH, which was included in ArtSpark's consolidated results starting in FY12/19 (see discussion below for further details).
- ▷ In December 2019, Candera established its own US subsidiary, Candera America Inc. (a subsidiary of a subsidiary of ArtSpark). Located in Detroit, Michigan, Candera America was established in response to the ongoing growth in luxury car sales in the US, rising customer need for HMI applications, and growing demand in a variety of industries, including home electronics, recreation vehicles (RVs), and agricultural equipment.
- ▷ With this, the company has established a global service network to meet the needs of customers in the three major regions where most of the development work for automobiles is done (i.e., Europe, Japan, and North America).
- ▷ In October 2018, Candera released the latest version (3.8) of CGI Studio, its software development platform for in-vehicle equipment. German major truck manufacturer MAN CitE Truck of MAN Group chose Candera as a project partner and its CGI Studio was included in MAN Truck's full-digital main control panel.
- ▷ The company held exhibitions at events for manufacturers and technology providers that use applications in the automotive-related industry in various countries. There, the company showcased leading technologies in automotive and embedded human machine interface (HMI) design.
- ▷ The company displayed at the 12th Automotive World show (held at the Tokyo Big Sight exhibition center), giving its first public demonstration of *Candera Link*. Developed in-house, Candera Link is a remote rendering service that allows platform-independent data and services to be shared by multiple clients (IVI, Cluster, AR HuD, smartphones, etc.).
- ▷ The number of exbeans UI Conductors installed in printers produced by Seiko Epson Corp. has surpassed 6mn units.
- ▷ Cumulative shipment of its in-vehicle mobile information transmission software—adopted as the default software for in-vehicle equipment by major OEMs since August 2015—has also topped 4.3mn units, primarily in the North American market.

## Acquisition of Candera GmbH

ArtSpark acquired Socionext Embedded Software Austria GmbH in January 31, 2019, making it a wholly owned subsidiary. The new subsidiary's name was changed to Candera GmbH on February 1, 2019. (See the "New medium-term business plan" section for further details.)

Acquired goodwill recognized at the time of the acquisition came to JP1.4bn. In FY12/19, JPY124mn was added to this amount in accordance with the terms of the acquisition, which required additional compensation to be paid to Candera's former shareholders based on its business performance during a defined period after its acquisition.

Other than goodwill, the value of other intangible depreciable assets acquired totaled JPY683mn, broken down as follows: client-related assets JPY138mn (depreciable over five years), technology assets (five years), and order backlog JPY33mn (one year).

\* Goodwill increased by JPY123.5mn as the acquisition price of Candera GmbH, which was contingent upon Candera's business results in FY03/19, was confirmed.

On the date Candera became a wholly owned consolidated subsidiary, its balance sheet showed current assets of JPY606mn and fixed assets of JPY796mn (for total assets of JPY1.4bn) and current liabilities of JPY478mn and fixed liabilities of JPY323mn (for total liabilities of JPY801mn).

## Transactions under common control (i.e., business transfers among consolidated subsidiaries)

On July 5, 2019, ArtSpark subsidiary HI Corp. transferred control of part of its UI/UX business to fellow group member Candera Japan.

The business transfer took the legal form of a corporate combination wherein HI Corp. was the transferring company and Candera Japan was the receiving company.

Candera Japan develops and sells proprietary products, its primarily product lines being *CGI Studio* (software development platform for automotive applications) and *exbeans UI Conductors* (foundational UI authoring software for human-machine interface).

## Income statement

Income statement (JPY'000)	FY03/10	FY03/11	FY03/12	FY12/12	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18	FY12/19	FY12/20
	Simple sum	Simple sum	Simple sum	Cons. (9-mo.)	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.	Cons. Act.
<b>Sales</b>	<b>4,954,267</b>	<b>4,931,552</b>	<b>4,565,225</b>	<b>2,633,289</b>	<b>3,685,419</b>	<b>3,826,206</b>	<b>4,156,911</b>	<b>3,835,853</b>	<b>3,636,018</b>	<b>3,789,652</b>	<b>5,381,272</b>	<b>6,373,808</b>
YoY	13.5%	-0.5%	-7.4%	-	-	3.8%	8.6%	-7.7%	-5.2%	4.2%	42.0%	18.4%
Cost of sales	2,818,224	2,783,018	2,871,108	2,221,966	2,542,916	2,492,712	2,878,801	2,272,354	2,033,955	2,002,522	3,078,467	3,241,651
<b>Gross profit</b>	<b>2,136,043</b>	<b>2,148,534</b>	<b>1,694,117</b>	<b>411,323</b>	<b>1,142,503</b>	<b>1,333,494</b>	<b>1,278,954</b>	<b>1,564,523</b>	<b>1,602,062</b>	<b>1,787,129</b>	<b>2,302,804</b>	<b>3,132,156</b>
GPM	43.1%	43.6%	37.1%	15.6%	31.0%	34.9%	30.8%	40.8%	44.1%	47.2%	42.8%	49.1%
SG&A expenses	1,593,111	1,525,315	1,467,550	1,078,636	1,211,597	1,233,780	1,190,466	1,064,018	1,178,999	1,411,630	2,060,464	2,359,860
SG&A ratio	32.2%	30.9%	32.1%	41.0%	32.9%	32.2%	28.6%	27.7%	32.4%	37.2%	38.3%	37.0%
<b>Operating profit</b>	<b>542,931</b>	<b>623,219</b>	<b>226,566</b>	<b>-667,312</b>	<b>-69,093</b>	<b>99,713</b>	<b>88,488</b>	<b>500,504</b>	<b>423,803</b>	<b>374,886</b>	<b>241,957</b>	<b>773,273</b>
YoY	63.2%	14.8%	-63.6%	-	-	-	-11.3%	465.6%	-15.3%	-11.5%	-35.5%	219.6%
OPM	11.0%	12.6%	5.0%	-	-	2.6%	2.1%	13.0%	11.7%	9.9%	4.5%	12.1%
Non-operating income	6,059	1,558	9,346	6,399	34,455	13,778	3,746	4,611	646	763	720	491
Non-operating expenses	21,847	17,029	20,247	29,132	33,585	19,869	30,008	28,070	14,024	17,970	12,509	26,095
<b>Recurring profit</b>	<b>527,143</b>	<b>607,749</b>	<b>215,666</b>	<b>-690,045</b>	<b>-68,222</b>	<b>93,621</b>	<b>62,226</b>	<b>477,045</b>	<b>410,425</b>	<b>357,679</b>	<b>230,167</b>	<b>747,669</b>
YoY	60.2%	15.3%	-64.5%	-	-	-	-33.5%	666.6%	-14.0%	-12.9%	-35.6%	224.8%
RPM	10.6%	12.3%	4.7%	-	-	2.4%	1.5%	12.4%	11.3%	9.4%	4.3%	11.7%
Extraordinary gains	27,989	3,849	35,121	413,052	134,257	15,887	37,275	5,341	216	652	30,867	619
Extraordinary losses	120,297	20,916	318,135	1,004,349	48,891	31,934	44,588	83,298	17,086	0	28,559	1,065,863
Tax charges	216,009	219,244	188,447	72,300	-25,667	17,284	18,929	58,576	18,763	31,701	-8,993	157,832
Implied tax rate	49.7%	37.1%	-279.8%	-5.6%	-149.7%	22.3%	34.5%	14.7%	4.8%	8.8%	-3.9%	-49.7%
Net income attrib. to non-controlling interests	-	-	-	-2,703	0	332	1,192	3,362	0	0	0	0
<b>Net income</b>	<b>218,826</b>	<b>371,438</b>	<b>-255,795</b>	<b>-1,350,939</b>	<b>42,811</b>	<b>59,958</b>	<b>34,791</b>	<b>337,150</b>	<b>374,791</b>	<b>334,144</b>	<b>241,469</b>	<b>-475,407</b>
YoY	-731.7%	69.7%	-	-	-	40.1%	-42.0%	869.1%	11.2%	-10.8%	-27.7%	-296.9%
Net margin	4.4%	7.5%	-	-	1.2%	1.6%	0.8%	8.8%	10.3%	8.8%	4.5%	-7.5%

Source: Shared Research based on company data

Figures may differ from company materials due to differences in rounding methods.

The company was formed from a merger of Celsys, Inc. and HI Corp. in April 2012, and thus FY12/12 is a nine-month period.

Figures from FY03/12 and before are simple sums of the two pre-merger results.

FY12/12 is an irregular period of nine months, owing to a change in accounting methods.

ArtSpark was established as a joint holding company in April 2012 as a result of the integration between Celsys, Inc. and HI Corp, so FY12/12 was an irregular nine-month financial year and FY12/13 was the first 12-month financial year. In the table above, SR shows the simple sums of the two companies' results for FY12/09 through FY12/11. The two companies' performances had expanded on main products for feature phones. However, the core of the mobile phone market began shifting to smartphones from around 2010 and the companies' performances lost pace, a factor that led to the integration.

In FY12/12 and FY12/13, ArtSpark incurred operating losses as it restructured unprofitable businesses and recombined its segments. It has pared its dependence on feature phones. In Q4 FY12/13, it reported operating profits and sales in the core content support business, and sales from smartphones surpassed those from other cell phones. Though the UI/UX segment posted lower profitability (launch of a new project), the expansion of products for auto-related industries made progress. The company moved back into the black in FY12/14. The medium-term plan ArtSpark announced in July 2015 demonstrated a strategic shift: leveraging the group's intellectual property by focusing on proprietary products and services. Sales consequently fell in FY12/16, but profit rose. In FY12/17, sales and earnings both fell. In FY12/18 and again in FY12/19, sales rose but earnings fell. In FY12/18, the drop in earnings came about as weak results in the UI/UX business offset strong results in the Creator Support business. In FY12/19, the decline in earnings came about as a result of the additional goodwill amortization charges stemming from the acquisition of Candera. In FY12/20, sales grew by 18.4% YoY and operating profit by 219.6% YoY, mainly due to growth in the Creator Support business.

## Balance sheet

Balance sheet (JPY'000)	FY03/10 Simple sum	FY03/11 Simple sum	FY03/12 Simple sum	FY12/12 Cons. (9-mo.)	FY12/13 Cons. Act.	FY12/14 Cons. Act.	FY12/15 Cons. Act.	FY12/16 Cons. Act.	FY12/17 Cons. Act.	FY12/18 Cons. Act.	FY12/19 Cons. Act.	FY12/20 Cons. Act.
<b>ASSETS</b>												
Cash and deposits	1,344,987	1,988,715	2,191,488	1,294,740	1,323,533	1,086,746	1,323,640	2,152,234	2,491,012	2,700,195	1,905,356	2,923,860
Accounts receivable	1,292,257	1,109,019	1,410,763	561,478	552,076	880,145	490,332	259,294	320,305	275,934	464,404	474,833
Inventories	101,746	101,518	119,342	192,378	148,755	137,536	108,577	24,887	26,027	-	-	-
Deferred tax assets	-	-	-	-	-	-	-	-	28,903	-	-	-
Other	156,776	149,870	133,924	120,373	119,141	126,709	169,220	107,157	133,019	305,295	344,537	470,518
Allowance for doubtful accounts	-17,100	-33,602	-31,760	-10,389	-12,608	-16,381	-6,224	-1,432	-2,864	-2,021	-5,456	-3,193
<b>Total current assets</b>	<b>2,878,666</b>	<b>3,315,520</b>	<b>3,823,757</b>	<b>2,158,580</b>	<b>2,130,897</b>	<b>2,214,755</b>	<b>2,085,545</b>	<b>2,542,140</b>	<b>2,996,405</b>	<b>3,279,406</b>	<b>2,708,841</b>	<b>3,866,018</b>
Buildings	58,448	51,278	47,142	41,794	35,755	40,325	26,214	24,124	29,194	26,639	107,335	136,377
Tools, furniture, and fixtures	45,700	47,343	36,062	28,271	19,977	31,227	26,642	25,881	41,012	47,853	115,786	110,839
Construction in progress	-	-	-	-	-	-	-	6,029	-	-	-	-
Other	-	-	-	-	-	-	-	-	6,561	4,844	1,164	-38,189
<b>Total tangible fixed assets</b>	<b>104,148</b>	<b>98,621</b>	<b>83,204</b>	<b>70,065</b>	<b>55,733</b>	<b>71,552</b>	<b>52,856</b>	<b>56,035</b>	<b>76,767</b>	<b>79,336</b>	<b>224,285</b>	<b>209,027</b>
Software, software in progress	863,294	1,051,745	1,378,467	911,681	944,035	1,159,427	1,176,660	879,742	711,493	664,525	685,504	807,314
Goodwill	14,013	15,722	17,964	34,955	27,964	134,174	-	-	-	-	1,294,262	-
Other	8,874	11,389	10,055	32,607	31,041	32,775	32,415	32,163	30,489	45,326	690,112	64,465
<b>Total intangible assets</b>	<b>886,181</b>	<b>1,078,856</b>	<b>1,406,486</b>	<b>979,243</b>	<b>1,003,040</b>	<b>1,326,376</b>	<b>1,209,075</b>	<b>911,906</b>	<b>741,982</b>	<b>709,851</b>	<b>2,669,878</b>	<b>1,294,023</b>
Investment securities	213,863	429,187	338,856	599,132	203,623	111,991	103,449	58,517	81,681	80,102	40,766	19,869
Deferred tax assets	19,557	24,804	34,232	-	-	-	-	-	-	83,314	-	-
Other	331,730	285,862	294,441	207,568	249,496	239,819	148,950	130,476	127,278	122,550	167,391	249,341
<b>Total other fixed assets</b>	<b>565,150</b>	<b>739,853</b>	<b>667,529</b>	<b>806,700</b>	<b>453,119</b>	<b>351,810</b>	<b>252,399</b>	<b>188,993</b>	<b>208,959</b>	<b>285,966</b>	<b>208,157</b>	<b>269,210</b>
<b>Total fixed assets</b>	<b>1,555,482</b>	<b>1,917,331</b>	<b>2,157,220</b>	<b>1,856,010</b>	<b>1,511,893</b>	<b>1,749,740</b>	<b>1,514,332</b>	<b>1,156,935</b>	<b>1,027,710</b>	<b>1,075,155</b>	<b>3,102,320</b>	<b>1,772,260</b>
Deferred assets	-	-	-	10,349	7,914	5,478	3,043	608	-	-	-	-
<b>Total assets</b>	<b>4,434,149</b>	<b>5,232,853</b>	<b>5,980,979</b>	<b>4,024,939</b>	<b>3,650,704</b>	<b>3,969,974</b>	<b>3,602,921</b>	<b>3,699,684</b>	<b>4,024,115</b>	<b>4,354,561</b>	<b>5,811,162</b>	<b>5,638,279</b>
<b>LIABILITIES</b>												
Accounts payable	178,477	173,764	276,578	170,305	168,904	211,822	149,730	68,135	80,707	100,590	95,858	119,644
Short-term debt	10,000	133,332	503,136	438,576	596,879	558,012	473,141	357,329	274,964	68,080	-	-
Other	409,156	442,612	338,023	413,537	255,223	471,384	353,011	330,673	320,731	498,301	800,923	1,175,953
<b>Total current liabilities</b>	<b>597,633</b>	<b>749,708</b>	<b>1,117,737</b>	<b>1,022,418</b>	<b>1,021,006</b>	<b>1,241,218</b>	<b>975,882</b>	<b>756,137</b>	<b>676,402</b>	<b>666,971</b>	<b>896,761</b>	<b>1,295,597</b>
Long-term debt	-	66,668	324,940	474,391	267,512	276,203	87,011	36,372	18,080	-	-	-
Other	46,804	54,041	102,324	179,074	75,973	89,750	100,222	108,956	162,162	210,792	385,583	322,005
<b>Total long term liabilities</b>	<b>46,804</b>	<b>120,709</b>	<b>427,264</b>	<b>653,465</b>	<b>343,485</b>	<b>365,953</b>	<b>187,233</b>	<b>145,328</b>	<b>180,242</b>	<b>210,792</b>	<b>385,583</b>	<b>322,005</b>
<b>Total liabilities</b>	<b>644,439</b>	<b>870,418</b>	<b>1,545,002</b>	<b>1,675,884</b>	<b>1,364,491</b>	<b>1,607,172</b>	<b>1,163,115</b>	<b>901,466</b>	<b>856,644</b>	<b>877,763</b>	<b>1,282,364</b>	<b>1,617,602</b>
<b>NET ASSETS</b>												
Capital stock	1,853,409	1,974,133	2,113,508	1,000,000	1,000,320	1,003,158	1,024,122	1,056,688	1,063,930	1,065,325	1,493,012	1,495,191
Capital surplus	1,352,927	1,473,253	1,612,626	1,867,600	479,447	482,285	503,249	535,815	543,057	544,452	972,139	974,318
Retained earnings	590,776	934,999	648,594	-658,100	773,184	832,467	867,258	1,190,994	1,545,457	1,852,434	2,059,924	1,535,615
Treasury stock	-	-	-	-71	-609	-958	-1,786	-2,946	-3,085	-3,198	-3,268	-3,738
Other	-7,402	-19,951	61,248	139,627	33,871	35,440	35,500	17,667	18,112	17,784	6,990	19,290
<b>Total net assets</b>	<b>3,789,710</b>	<b>4,362,434</b>	<b>4,435,976</b>	<b>2,349,056</b>	<b>2,286,213</b>	<b>2,362,802</b>	<b>2,439,806</b>	<b>2,798,218</b>	<b>3,167,471</b>	<b>3,476,797</b>	<b>4,528,797</b>	<b>4,020,676</b>
Working capital	1,215,526	1,036,773	1,253,527	583,551	531,927	805,859	449,179	216,046	265,625	175,344	368,546	355,189
Total interest-bearing debt	10,000	200,000	828,076	912,967	864,391	834,215	560,152	393,701	293,044	68,080	-	-
<b>Net debt</b>	<b>-1,334,987</b>	<b>-1,788,715</b>	<b>-1,363,412</b>	<b>-381,773</b>	<b>-459,142</b>	<b>-252,531</b>	<b>-763,488</b>	<b>-1,758,533</b>	<b>-2,197,968</b>	<b>-2,632,115</b>	<b>-1,905,356</b>	<b>-2,923,860</b>

Source: Shared Research based on company data

Figures may differ from company materials due to differences in rounding methods.

The company was formed from a merger of Celsys, Inc. and HI Corp. in April 2012, and thus FY12/12 is a nine-month period.

Figures from FY03/12 and before are simple sums of the two pre-merger companies.

FY12/12 is an irregular period of nine months, owing to a change in accounting methods.

## Assets

- ▷ The largest item in assets is cash and deposits, followed by intangible fixed assets like software. Changes in assets during FY12/16 reflect an upturn in operating performance and the sale of Hi Corp. Kansai during FY12/16.
- ▷ As of end-FY12/20, current assets of JPY3.9bn were up JPY1.2bn YoY and fixed assets of JPY1.8bn were down JPY1.3bn YoY. The drop in fixed assets reflected a JPY1.3bn decrease in goodwill due to the recording of impairment losses, a JPY28mn decline in customer-related assets due to amortization, and a JPY102mn decrease in technology assets.
- ▷ At end-FY12/20, the company held JPY20mn in investment securities. This centered on software-related companies in Japan and overseas that ArtSpark may have synergy with. As the group is oriented toward research and development, it believes that mergers and acquisitions, as well as partnership strategies, are important. It will consider M&A and tie-ups.

## Liabilities

- ▷ As of end-FY12/20, total liabilities of JPY1.6bn were up JPY335mn versus end-FY12/19, with accrued expenses down JPY30mn and deferred tax liabilities down JPY33mn, versus increases of JPY78mn in amounts in arrears, JPY146mn in advances received, and JPY179mn in income taxes payable.
- ▷ Total liabilities trended down from FY12/14 to FY12/17 owing to a business turnaround and the sale of HI Corp. Kansai, but they increased modestly YoY in FY12/18, FY12/19, and FY12/20.

## Net assets

- ▷ As of end-FY12/20, net assets of JPY4.0bn were down JPY508mn versus end-FY12/19. The decrease reflected a JPY524mn drop in retained earnings from net loss attributable to parent company shareholders reported in FY12/20. The equity ratio at fiscal year-end slipped to 71.2% versus 77.8% at end-FY12/19.

## Cash flow statement

Cash flow statement (JPY'000)	FY03/10 Simple sum	FY03/11 Simple sum	FY03/12 Simple sum	FY12/12 Cons. 9 mo.	FY12/13 Cons. Act.	FY12/14 Cons. Act.	FY12/15 Cons. Act.	FY12/16 Cons. Act.	FY12/17 Cons. Act.	FY12/18 Cons. Act.	FY12/19 Cons. Act.	FY12/20 Cons. Act.
Cash flows from operating activities (1)	297,551	1,154,289	273,344	137,818	358,484	672,554	837,494	1,435,075	1,021,462	1,007,074	988,658	1,820,864
Cash flows from investing activities (2)	-712,016	-916,091	-1,052,154	-622,300	-163,135	-508,476	-539,941	-551,610	-577,430	-550,631	-2,425,091	-778,846
<b>Free cash flow (1+2)</b>	<b>-414,465</b>	<b>238,198</b>	<b>-778,810</b>	<b>-484,482</b>	<b>195,349</b>	<b>164,078</b>	<b>297,553</b>	<b>883,465</b>	<b>444,032</b>	<b>456,443</b>	<b>-1,436,433</b>	<b>1,042,018</b>
<b>Cash flows from financing activities</b>	<b>-28,281</b>	<b>401,469</b>	<b>869,543</b>	<b>-355,593</b>	<b>-48,473</b>	<b>-238,659</b>	<b>-64,272</b>	<b>-58,486</b>	<b>-108,862</b>	<b>-250,865</b>	<b>728,621</b>	<b>-46,282</b>
Depreciation and amortization (A)	355,424	520,037	655,477	469,339	519,223	574,714	595,441	651,849	687,552	534,377	681,265	808,665
Capital expenditures (B)	-588,708	-709,427	-980,638	-552,470	-563,377	-815,302	-631,804	-427,410	-550,392	-523,854	-715,155	-777,655
Working capital changes (C)	325,021	-178,753	216,754	-669,976	-51,624	273,932	-356,680	-233,133	49,579	-90,281	193,202	-13,357
<b>Simple FCF (NI + A + B - C)</b>	<b>-339,479</b>	<b>360,801</b>	<b>-797,710</b>	<b>-764,094</b>	<b>50,281</b>	<b>-454,562</b>	<b>355,108</b>	<b>794,722</b>	<b>462,372</b>	<b>434,948</b>	<b>14,377</b>	<b>-431,040</b>

Source: Shared Research based on company data

Figures may differ from company materials due to differences in rounding methods.

The company was formed from a merger of Celsys, Inc. and HI Corp. in April 2012, and thus FY12/12 is a nine-month period.

Figures from FY03/12 and before are simple sums of the two pre-merger results.

FY12/12 is an irregular period of nine months, owing to a change in accounting methods.

- ▷ In FY12/16, cash flows were affected by an upturn in operating performance and reflected the concentration and allocation of financial resources, including the selling of shares in HI Corp. Kansai.
- ▷ Cash flow conditions were favorable in FY12/18 as well, due to solid operating cash inflows. As a result, cash and equivalents rose by JPY206mn YoY to JPY2.6bn at end-FY12/18.
- ▷ In FY12/19, the company reported JPY989mn in cash flow from operating activities but saw an outflow of JPY2.4bn under investing activities, with major outlays including the acquisition of shares in a subsidiary accompanying changes in the scope of consolidated and capital spending. On the financing front, there was an inflow of JPY729mn from the issuance of new shares. As a result, the balance of cash and equivalents finished the year at JPY1.9bn, down JPY732mn versus end-FY12/18.
- ▷ In FY12/20, the company reported JPY1.8bn in cash flow from operating activities. As a result, cash and equivalents rose by JPY1.0bn YoY to JPY2.9bn at end-FY12/20.

### Cash flows from operating activities

- ▷ Since being established in April 2012, the company has restructured, and cash flows from operating activities are trending upward, with annual inflows of about JPY1.0bn since FY12/16.
- ▷ In FY12/18, cash inflow from operating activities was JPY1.0bn, down JPY14mn YoY. The decrease was mainly due to an increase in inventories (work in process) (there was a JPY1mn increase in inventories in FY12/17, and an increase of JPY138mn in FY12/18).
- ▷ In FY12/19, cash flow from operating activities came to JPY989mn, down JPY9mn versus FY12/18. This figure reflects inflows of JPY232mn from pre-tax net profit, JPY681mn from depreciation, and JPY228mn from goodwill amortization, with this partially offset by a JPY5mn increase in trade notes receivable, JPY26mn gain on the sale of investment securities, and the payment of JPY156mn in corporate taxes.
- ▷ In FY12/20, cash flow from operating activities came to JPY1.8bn. This figure reflects inflows of JPY809mn from depreciation, JPY228mn from goodwill amortization, JPY1.1bn from impairment loss, partially offset by JPY318mn from pre-tax net loss and JPY10mn from increase in trade notes receivable.

### Cash flows from investing activities

- ▷ For the company, whose main operation is development of software, cash flows from investing activities change mainly on acquisition of intangible assets.
- ▷ In FY12/18, ArtSpark spent a net JPY551mn on investing activities. Principal outflows included JPY477mn in acquisitions of software and other intangible assets, and JPY47mn for the purchase of tangible fixed assets.
- ▷ FY12/19 saw a net outflow of JPY2.4bn under investing activities, with major outlays including the acquisition of shares in a subsidiary accompanying changes in the scope of consolidated and capital spending.



- ▷ In FY12/20, ArtSpark saw a net outflow of JPY779bn under investing activities. Principal outflows included JPY729mn in acquisitions of software and other intangible assets, and JPY48mn for the purchase of tangible fixed assets.

## Cash flows from financing activities

- ▷ There was an outflow of JPY251mn in cash flows from financing activities in FY12/18. The company paid down short-term debt worth JPY140mn, long-term debt worth JPY85mn, and paid out JPY27mn in dividends.
- ▷ FY12/19 saw a net inflow of JPY729mn under financing activities, reflecting inflows of JPY1.5bn from short-term loans and JPY855mn in new equity capital from the issuance of shares, with this partially offset by outflows of JPY1.6bn to repay short-term loans and JPY43mn to repay long-term loans.
- ▷ In FY12/20, ArtSpark saw a net outflow of JPY46mn under financing activities. The company paid out JPY49mn in dividends, which was partially offset by JPY4mn in new equity capital from the issuance of shares.

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## News and topics

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### November 2020

On November 6, 2020, the company announced subsidiary changes.

#### Subsidiary changes

- ▷ In the UI/UX business, ArtSpark acquired Canderä GmbH and converted it into a subsidiary in January 2019. In June of the same year, the company established Canderä Japan Inc. as a Canderä GmbH subsidiary to handle that company's sales, development, and support operations in Japan and Asia. Canderä GmbH, an Austrian firm, and Canderä Japan focus mainly on the development of self-developed IP products such as CGI Studio and exbeans UI Conductor.
- ▷ With the aim of consolidating its domestic UI/UX business, ArtSpark decided to transfer all its shares in HI Corporation to Canderä Japan, which operates in the same business and is focused mainly on the development of CGI Studio.
- ▷ The transfer of shares is not expected to have an impact on earnings as HI Corporation will become a second-tier subsidiary and remain within the scope of consolidation.

## Other information

### History

**ArtSpark Holdings Inc.** is a holding company, established in April 2012 as a result of the integration of Celsys, Inc. and HI Corporation. The companies are now wholly owned subsidiaries of ArtSpark. Celsys and HI were mainly operating in services for feature phones. ArtSpark was established to harness the popularity of smartphones, and build a competitive company by combining Celsys' application technologies in 2D graphics and HI's middleware technologies and design capabilities in 3D graphics.

**Celsys** was founded in May 1991. The company grew quickly by selling software enabling users to create animations and comics on personal computers. The company's software is used by more than 90% of TV animation studios in Japan. It also has a high market share in distributing electronic comics to mobile phones.

**HI** was established in April 1989. The company initially engaged in custom development of computer systems for corporate clients, but the success of MascotCapsule, a 3D rendering engine for mobile devices launched in 2001, helped fuel its performance in the following years. HI has delivered MascotCapsule to major telecom carriers and device manufacturers in the world. Its share is over 90% in the market of 3D rendering engines for feature phones in Japan.

History of ArtSpark and the two subsidiaries:

#### History of ArtSpark Holdings

Apr. 2012	Established as a joint holding company when Celsys, Inc. and HI Corp. were integrated. Listed on the TSE second section.
Feb. 2014	With the intent of expanding the UI/UX segment, subsidiary HI Corp acquires 91.7% of outstanding shares in HI Corporation Kansai, making HI Corporation Kansai a second-tier subsidiary.
Apr. 2014	With the intent of expanding the UI/UX segment, subsidiary HI Corp acquires 60.6% of outstanding shares in U'eyes Design, Inc., making U'eyes Design, Inc. a second-tier subsidiary.
Jun. 2015	Sells all shares in U'eyes Design, Inc. as part of restructuring.
Jul. 2016	Transfers all shares in HI Corp. Kansai held by consolidated subsidiary HI Corp.
Jan. 2019	Acquires shares of Socionext Embedded Software Austria GmbH (currently Cander a GmbH) and made Cander a subsidiary.
Jun. 2019	Established Cander a Japan Inc.
Dec. 2019	Established Cander a America Inc.

#### History of Celsys, Inc.

May 1991	Establishment of Celsys. Starts custom production of media content.
Sep. 1993	Release of Retas!Pro Ver1, software for production of animations.
Aug. 2001	Release of ComicStudio Ver1.0, software to produce manga.
Nov. 2001	Starts mobile solutions for au (KDDI Corp, TSE1: 9433).
Nov. 2003	Release of Claytown, clay animation software for consumers.
Jan. 2004	Starts providing mobile solutions for NTT Docomo Inc. (TSE1: 9437).
Dec. 2004	Starts mobile solutions for Vodafone (now SoftBank Mobile Corp).
Feb. 2006	Overseas release of MangaStudio, the English-language version of ComicStudio.
Oct. 2006	Upgrade of manga viewer ComicSurfing to the total e-book viewer BookSurfing (BS Reader).
Dec. 2006	Listing of company's stocks on the Nagoya Stock Exchange's Centrex market (delisted in January 2011).
Dec. 2008	Release of Retas Studio all-in-one animation production package.
Apr. 2009	Release of the color painting and illustration tool ILLUST STUDIO download edition.
Nov. 2010	Listing on the Second Section of the Tokyo Stock Exchange.

Nov. 2010	Celsys and Prime Works Co Ltd start providing the total e-book viewer BS Reader for Android for SoftBank Mobile's smartphones as preinstalled software.
Mar. 2011	Starts exclusive sale in Japan of Panelfly, North America's largest e-book solution. Comprehensive tie-up, development and sale of e-book solutions for iPhone and iPad.
Apr. 2011	E-book solutions of Celsys and Voyager Japan Inc. are adopted by LISMO Book Store, a KDDI e-book store.

## History of HI

Apr. 1989	HI Co Ltd established for custom development of systems for corporate clients and providing programming seminars for advanced learners.
Oct. 1992	HI is officially incorporated.
Dec. 1996	Starts development and sale of packaged software.
Mar. 2001	MascotCapsule V1, the world's first real-time 3D rendering engine for mobile phones, is introduced.
Mar. 2001	Begins integrating MascotCapsule with mobile phones for J-Phone Group (now SoftBank Mobile).
Apr. 2001	Shifts the core target of development from PC software to mobile content.
May 2002	NTT Docomo adopts MascotCapsule for its mobile phones.
Mar. 2003	KDDI begins integrating MascotCapsule with its mobile phones.
Apr. 2003	Enters an alliance with Macromedia Inc. (now Adobe Systems Inc.) of the US and Bandai Networks Co Ltd of Japan on integrating Adobe Flash Lite with NTT Docomo's mobile phones.
May 2003	Signs a license agreement on MascotCapsule with Motorola Inc. (USA).
Jan. 2004	Signs a license agreement on MascotCapsule with Sweden's Sony Ericsson Mobile Communications AB.
Sep. 2004	Victor Co of Japan (now JVC Kenwood Corp, TSE1: 6632) adopts MascotCapsule for its hard disk camcorder, the first-ever mounting on a home electronics device.
Sep. 2004	Signs a license agreement on MascotCapsule with Qualcomm Incorporated (USA).
Jun. 2005	Signs a license agreement on MascotCapsule with Samsung Electronics Co Ltd (South Korea).
Aug. 2005	Signs license agreement for MascotCapsule with LG Electronics Inc. (South Korea).
Oct. 2005	Starts integrating MascotCapsule with Willcom Inc.'s mobile phones.
Apr. 2006	Signs a license agreement for MascotCapsule with Sagem Communication (France).
Apr. 2007	HI stock listed on the JASDAQ Securities Exchange.
Jun. 2008	Signs a license agreement with Sun Microsystems Inc. (USA).
Oct. 2009	Signs a license agreement with Pantech Co Ltd (South Korea).
Nov. 2020	Transferred all shares of HI Corporation held by the company to subsidiary Candera Japan Inc.
Mar. 2021	Transferred all shares of HI Corporation to micware Co., Ltd.

## Shareholder return

The company recognizes that returning profits to shareholders is important and, going forward, will seek to improve return to shareholders in the form of dividends by setting its dividend payout based on the level of earnings, while at the same time balancing the need for internal reserves to assure the company has the financial wherewithal to cope with changes in the operating environment. As part of this policy, the company intends to make a single dividend payment at the end of each fiscal year. The internal reserves the company is looking to fortify will be used as a source of internal capital to fund systems development work, the hiring of additional personnel, and other investment spending needed to sustain growth in the future.

## Major shareholders (as of end-December 2019)

Top shareholders	Shares held	Shareholding ratio
Ueda Yagi Tanshi Co., Ltd.	361,300	4.42%
Masahiro Sumiyama	330,000	4.04%
Yosuke Kawakami	200,100	2.45%
Nomura Securities Co., Ltd.	197,700	2.42%
Japan Securities Finance Co., Ltd.	195,700	2.39%
BNYM AS AGT/CLTS TREATY JASDEC	178,800	2.19%
Rakuten Securities Co., Ltd.	156,300	1.91%
Custody Bank of Japan, Ltd. (Trust account)	138,000	1.69%
MSIPLIENTSECURITIES	128,351	1.57%
The Master Trust Bank of Japan, Ltd. (Trust account)	123,600	1.51%
<b>SUM</b>	<b>2,009,851</b>	<b>24.59%</b>

Source: Shared Research based on company data (as of December 31, 2020)

## Top management

ArtSpark President **Shinya Nozaki** (born 1965) graduated from Nihon Kogakuin College in 1987 and joined Suda International Gear Works, Ltd. After moving to Cadix, Co., Ltd., he established Celsys, Inc. in 1991, serving as its representative director and president. He was appointed as Representative Director and President in March 2016 after the former Representative Director, Chairman, and President Yosuke Kawakami, who was also one of the founders of Celsys, Inc., resigned from his post.

## Employees

As of end-December 2019, ArtSpark Holdings had 176 employees on a consolidated group basis, of which 15 are holding company employees.

## Other

The company's name is ArtSpark Holdings. The Art component encompasses a variety of meanings, such as technology, design, and creative works. The Spark component reflects the idea of companies involved in these fields forming a group, and sparking with light as they fire each other up.

## Profile

<b>Company name</b>	<b>Head office</b>
ArtSpark Holdings Inc.	Nishi-Shinjuku, Shinjuku-ku, Tokyo, Japan 4-15-7
<b>Established</b>	<b>Listed on</b>
2012/04/02	Tokyo Stock Exchange, second section
<b>Website</b>	<b>Exchange listing</b>
<a href="https://www.artspark.co.jp/en/">https://www.artspark.co.jp/en/</a>	2012/04/02
<b>IR web</b>	<b>Fiscal year-end</b>
<a href="http://www.artspark.co.jp/irinfo/">http://www.artspark.co.jp/irinfo/</a> (Japanese only)	December

We offer corporate clients comprehensive report coverage, a service that allows them to better inform investors and other stakeholders by presenting a continuously updated third-party view of business fundamentals, independent of investment biases. Shared Research can be found on the web at <https://sharedresearch.jp>.

## Current Client Coverage of Shared Research Inc.

Advance Create Co., Ltd.	Digital Garage Inc.	Kanamic Network Co.,LTD	SANIX INCORPORATED
ADJUVANT COSME JAPAN CO., LTD.	DIP Corporation	Kawanishi Holdings, Inc.	Sanrio Company, Ltd.
Aeon Delight Co., Ltd.	Doshisha Corporation	KFC Holdings Japan, Ltd.	SATO HOLDINGS CORPORATION
Aeon Fantasy Co., Ltd.	Dream Incubator Inc.	KI-Star Real Estate Co., Ltd.	SBS Holdings, Inc.
Ai Holdings Corporation	Earth Corporation	KLab Inc.	Seikagaku Corporation
AI inside Inc.	Edion Corporation	Kondotec Inc.	Seria Co.,Ltd.
AirTrip Corp.	Elecom Co., Ltd.	Kumiai Chemical Industry Co., Ltd.	Serverworks Co.,Ltd.
and factory, inc.	en-Japan Inc.	Lasertec Corporation	SHIFT Inc.
ANEST IWATA Corporation	Estore Corporation.	Locondo, Inc.	Shikigaku Co., Ltd
AnGes Inc.	euglena Co., Ltd.	LUCKLAND CO., LTD.	SHIP HEALTHCARE HOLDINGS, INC.
Anicom Holdings, Inc.	FaithNetwork Co., Ltd.	MATSUI SECURITIES CO., LTD.	SIGMAXYZ Inc.
Anritsu Corporation	Ferrotec Holdings Corporation	Media Do Co., Ltd.	SMS Co., Ltd.
Apaman Co., Ltd.	FIELDS CORPORATION	Medical System Network Co., Ltd.	Snow Peak, Inc.
ARATA CORPORATION	Financial Products Group Co., Ltd.	MEDINET Co., Ltd.	Solasia Pharma K.K.
Artspark Holdings Inc.	First Brothers Col, Ltd.	MedPeer,Inc.	SOURCENEXT Corporation
AS ONE CORPORATION	FreeBit Co., Ltd.	Mercuria Investment Co., Ltd.	Star Mica Holdings Co., Ltd.
Ateam Inc.	Fujita Kanko Inc.	Micronics Japan Co., Ltd.	Strike Co., Ltd.
Aucfan Co., Ltd.	Gamecard-Joyco Holdings, Inc.	MIRAIT Holdings Corporation	SymBio Pharmaceuticals Limited
AVANT CORPORATION	GameWith, Inc.	Monex Goup Inc.	Synchro Food Co., Ltd.
Axell Corporation	GCA Corporation	MORINAGA MILK INDUSTRY CO., LTD.	TAIYO HOLDINGS CO., LTD.
Azbil Corporation	Good Com Asset Co., Ltd.	Mortgage Service Japan Limited.	Takashimaya Company, Limited
AZIA CO., LTD.	Grandy House Corporation	NAGASE & CO., LTD	Take and Give Needs Co., Ltd.
AZoom, Co., Ltd.	Hakuto Co., Ltd.	NAIGAI TRANS LINE LTD.	TEAR Corporation
Base Co., Ltd	Hamee Corp.	NanoCarrier Co., Ltd.	Tenpo Innovation Inc.
BEENOS Inc.	Happinet Corporation	Net Marketing Co., Ltd.	3-D Matrix, Ltd.
Bell-Park Co., Ltd.	Harmonic Drive Systems Inc.	Net One Systems Co.,Ltd.	The Hokkoku Bank,Ltd.
Benefit One Inc.	HENNGE K.K.	Nichi-Iko Pharmaceutical Co., Ltd.	TKC Corporation
B-lot Co.,Ltd.	Hope, Inc.	Nihon Denkei Co., Ltd.	TKP Corporation
Broadleaf Co., Ltd.	HOUSEDO Co., Ltd.	Nippon Koei Co., Ltd.	Tsuzuki Denki Co., Ltd.
CarBas Co., Ltd.	H2O Retailing Corporation	NIPPON PARKING DEVELOPMENT Co., Ltd.	TOCALO Co., Ltd.
Canon Marketing Japan Inc.	IDOM Inc.	NIPRO CORPORATION	TOKAI Holdings Corporation
Career Design Center Co., Ltd.	IGNIS LTD.	Nisshinbo Holdings Inc.	Tokyu Construction Co., Ltd.
Carma Biosciences, Inc.	i-mobile Co.,Ltd.	NS TOOL CO., LTD.	TOYOBO CO., LTD.
CARTA HOLDINGS, INC	Inabata & Co., Ltd.	OHIZUMI MFG. CO., LTD.	Toyo Ink SC Holdings Co., Ltd
CERES INC.	Infocom Corporation	Oisix ra daichi Inc.	Toyo Tanso Co., Ltd.
Chiyoda Co., Ltd.	Infomart Corporation	Oki Electric Industry Co., Ltd	Tri-Stage Inc.
Chori Co., Ltd.	Intelligent Wave, Inc.	ONO SOKKI Co., Ltd.	TSURUHA Holdings
Chugoku Marine Paints, Ltd.	ipet Insurance CO., Ltd.	ONWARD HOLDINGS CO.,LTD.	VISION INC.
cocokara fine Inc.	Itochu Enex Co., Ltd.	Pan Pacific International Holdings Corporation	VISIONARY HOLDINGS CO., LTD.
COMSYS Holdings Corporation	JAFCO Co.,Ltd.	PARIS MIKI HOLDINGS Inc.	World Holdings Co., Ltd.
COTA CO.,LTD.	JMDC Inc.	PIGEON CORPORATION	YELLOW HAT LTD.
CRE, Inc.	JSB Co., Ltd.	QB Net Holdings Co., Ltd.	YOSHINOYA HOLDINGS CO., LTD.
CREEK & RIVER Co., Ltd.	JTEC Corporation	RACCOON HOLDINGS, Inc.	YUMESHIN HOLDINGS CO., LTD.
Daiichi Kigenso Kagaku Kogyo Co., Ltd.	J Trust Co., Ltd	Raysum Co., Ltd.	ZAPPALLAS, INC.
Daiseki Co., Ltd.	Japan Best Rescue System Co., Ltd.	RESORTTRUST, INC.	
Demae-Can CO., LTD	JINS HOLDINGS Inc.	ROUND ONE Corporation	
DIC Corporation	JP-HOLDINGS, INC.	RYOHIN KEIKAKU CO., LTD.	
Digital Arts Inc.	KAMEDA SEIKA CO., LTD.	SanBio Company Limited	

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