# Soulbrain (036830 KQ)

Lee Su-bin subin.lee@daishin.com

Rating

BUY initiate

6MTP (W)

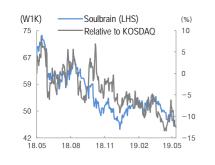
56,000 initiate

CP (W) (19.06.03)

Display

Industry 4.0 safety rating	g Sky Blue
KOSDAQ	697.50
Market cap (Wbn)	792
Market cap portion (%)	0.33
Paid-in capital (common; WI	bn) 9
52w high/low (W)	73,500 / 44,650
120d avg. trading volume (V	Vbn) 2.1
Foreign ownership (%)	29.14
Major shareholders	Jeong Ji-wan+7: 43.48%

(%)	1M	3M	6M	12M
Abs. return	-8.8	-11.0	-16.0	-36.2
Rel. return	-0.4	-6.7	-14.5	-19.2



# External tailwinds are building

# Coverage initiated with BUY and TP of W56,000

- For Soulbrain, we suggest a target price of W56,000, which is based on a 2019E EPS and a target P/E ratio of 8.8, a 15% discount to the 2015-18 average of 10.1. The valuation discount reflects potential new competition the chemical company may face. (The company supplies etchants and other chemical solutions for display and semiconductor makers.)
- Fetching a P/E ratio of 7.4, a 10% discount to the bottom end of the five-year trading range, the stock looks grossly undervalued.

# 2019 preview: revenue up 8%; OP up 9%

- Soulbrain's first-quarter OP fell slightly short of the market's expectation at W43.1bn (up 19% qoq; up 14% yoy). Semiconductor etchant sales slid 5% qoq, reflecting lower plant utilization at customers. Thin-glass sales, on the other hand, jumped 40%, buoyed by increased sales of rigid OLED panels.
- Heading into the second half, sales of semiconductor etchants will likely recover as chip makers finish up facility revamps and boost production. Thin glass sales should also continue to grow well into the third quarter.
- For all of 2019, we expect the company to report revenue of W1tn and OP of W179.6bn.

#### 2020 should be a better year than last year

- Demand for high-selective nitride (HSN) etchants is rising as chip makers move to 5th gen 3-D NAND technology. Despite that, Soulbrain shares are under pressure due to worries over potential new competition. We believe the concern is excessive, given that it takes time for new entrants, if any, to pass the customers' quality tests.
- Display makers are stepping up plant utilization (over 90%) to meet the growing demand for rigid OLEDs from Chinese handset makers. That raises the company's growth outlook.
- The company will also benefit as major local semiconductor and display makers begin operation at their new facilities—Samsung Electronics' Pyeongtaek fab, SK Hynix' M15, Samsung Display's A5, and LG Display's Guangzhou fab—as early as 2H19—and boost investment starting from 2020.

#### Operating results and major financial data

(Wbn, W, x, %)

	2017A	2018A	2019F	2020F	2021F
Revenue	776	963	1,044	1,126	1,238
OP	106	164	180	196	215
Pretax profit	67	147	162	178	198
NP	43	103	114	125	139
NP (controlling int.)	41	100	112	123	136
EPS	2,467	5,722	6,409	7,043	7,822
PER	27.4	8.3	7.1	6.5	5.8
BPS	38,616	41,701	47,426	53,742	60,836
PBR	1.7	1.1	0.9	0.8	0.7
ROE	6.8	14.5	14.4	13.9	13.7
Mate, EDC DDC and DC	<b>3</b>	41	line or instance of		

Note: EPS, BPS, and ROE are based only on the controlling interest.



Tab 1. Earnings trend and forecast (consolidated)

(Wbn)

	1Q18	2Q18	3Q18	4Q18	1Q19E	2Q19F	3Q19F	4Q19F	2018	2019F	2020F
Sales											
1) Semiconductor											
Etching	113	120	128	136	129	133	138	141	496	540	587
Precursors	8	8	9	8	8	8	9	9	33	34	36
CMP Slurry	11	11	12	12	11	10	11	11	45	43	45
Total	131	138	149	156	148	151	158	160	575	617	669
2) Display											
Chemical	30	33	33	34	30	28	30	30	130	119	122
Thin Glass & Others	37	43	46	34	44	52	54	48	160	198	219
Total	67	75	80	68	74	80	84	78	290	317	341
3) Battery electrolyte & Lead Tab	16	20	20	17	16	18	18	17	73	70	80
4) Others	3	5	6	11	9	10	11	12	25	40	36
Total	218	238	255	253	247	259	271	267	963	1,044	1,126
QoQ growth											
1) Semiconductor											
Etching	8%	6%	7%	6%	-5%	3%	4%	2%	34%	9%	9%
Precursors	0%	-3%	18%	-8%	-2%	1%	12%	-7%	10%	4%	7%
CMP Slurry	7%	4%	8%	0%	-8%	-5%	4%	2%	20%	-5%	5%
Total	8%	5%	7%	5%	-5%	2%	4%	1%	31%	7%	8%
2) Display											
Chemical	-5%	8%	2%	3%	-12%	-6%	5%	2%	1%	-9%	2%
Thin Glass & Others	13%	15%	9%	-27%	30%	18%	5%	-12%	12%	24%	11%
Total	4%	12%	6%	-15%	9%	2%	1%	-7%	7%	9%	8%
3) Battery electrolyte & Lead Tab	19%	20%	1%	-13%	-7%	10%	3%	-6%	33%	-5%	15%
4) Others	-44%	82%	33%	73%	-22%	10%	10%	10%	139%	61%	-11%
Total	6%	9%	7%	-1%	-2%	5%	8%	0%	24%	8%	8%
Sales share											
1) Semiconductor											
Etching	52%	50%	50%	54%	52%	51%	51%	53%	52%	52%	52%
Precursors	4%	3%	4%	3%	3%	3%	3%	3%	3%	3%	3%
CMP Slurry	5%	5%	5%	5%	4%	4%	4%	4%	5%	4%	4%
Total	60%	58%	58%	62%	60%	58%	58%	60%	60%	59%	59%
2) Display											
Chemical	14%	14%	13%	14%	12%	11%	11%	11%	14%	11%	11%
Thin Glass & Others	17%	18%	18%	13%	18%	20%	20%	18%	17%	19%	19%
Total	31%	32%	31%	27%	30%	31%	31%	29%	30%	30%	30%
3) Battery electrolyte & Lead Tab	8%	8%	8%	7%	7%	7%	7%	6%	8%	7%	7%
4) Others	1%	2%	3%	4%	4%	4%	4%	4%	3%	4%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OP											
OP	38	43	47	36	43	45	46	46	164	180	196
QoQ	44%	75%	58%	43%	14%	3%	-2%	27%	55%	9%	9%
OP margin	17%	18%	18%	14%	17%	17%	17%	17%	17%	17%	17%

Tab 2. Valuation table

(Wbn, 1K shares, W, x, %)

	2019F	12-month forward
NP (controlling interest)	112	98
Floating shares	17,398	
EPS	6,409	5,658
Target P/E	8.8	8.8
Fair value	56,399	
Target price	56,000	
СР	45,550	
P/E	7.4	
Upside potential	23%	98

Note: As of June 3, 2019

Source: Soulbrain, Quantiwise, Daishin Securities Research Center

Tab 3. Historical valuation

(W, x)

	2015	2016	2017	2018	2019F
EPS (includes treasury shares)	4,878	4,514	2,467	5,722	6,409
PER (End)	8.3	13.4	27.4	8.3	7.4
PER (High)	10.8	15.4	31.5	13.1	8.7
PER (Low)	6.3	7.6	18.4	8.1	6.9
PER (Avg)	8.6	11.6	25.3	10.4	8.0
BPS	29,865	33,711	37,072	41,701	47,426
PBR (End)	1.4	1.8	1.8	1.1	1.0
PBR (High)	1.8	2.1	2.1	1.8	1.2
PBR (Low)	1.0	1.0	1.2	1.1	0.9
PBR (Avg)	1.4	1.6	1.7	1.4	1.1
EV/EBITDA (End)	5.1	6.6	6.9	3.5	3.0
EV/EBITDA (High)	6.4	7.3	8.0	5.6	3.5
EV/EBITDA (Low)	4.0	3.9	4.3	3.4	2.7
EV/EBITDA (Avg)	5.3	5.7	6.0	4.4	3.2

Note: Based on NP contributable to controlling interest

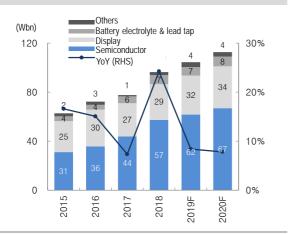
Source: Soulbrain, Quantiwise, Daishin Securities Research Center

Tab 4. Peer comparison

	Year	Soulbrain	SK Materials	ENF Technology	Mecaro	Foosung	Entegris	Ube Industries
Settlement month		December	December	December	December	December	December	March
Currency		KRW	KRW	KRW	KRW	KRW	USD	JPY
Share price (local currer	ncy)	45,550	152,300	21,500	13,400	7,190	34	2,081
Market cap (local curren	ıcy)	792	1,606	306	135	666	4,654	221
Market cap (USD mn)		665	1,350	257	113	560	4,654	2,037
Stock Exchange		KOSDAQ	KOSDAQ	KOSDAQ	KOSDAQ	KOSPI	SDAQ GS	Tokyo
Revenue	2018	963	687	425	101	275	1,550	69,557
(Wbn, \$mn, ¥"00mn)	2019F	1,044	800	488		306	1,601	75,549
	2020F	1,126	909	548		387	1,708	78,173
OP	2018	164	183	36	34	40	293	5,025
(Wbn, \$mn, ¥"00mn)	2019F	180	228	53		46	369	4,812
	2020F	196	263	62		70	429	5,023
OPM	2018	17.0	26.6	8.4	33.7	14.4	18.9	7.2
(%)	2019F	17.2	28.5	10.8		15.0	23.0	6.4
	2020F	17.4	29.0	11.3		18.1	25.1	6.4
NP	2018	100	123	29	29	28	241	31,680
(Wbn, \$mn, ¥"00mn)	2019F	112	153	41		37	267	32,816
	2020F	123	179	49		57	307	34,368
PER	2018	8.3	15.8	7.8	9.7	29.8	18.4	10.3
(x)	2019F	7.4	11.3	7.1		16.8	17.6	6.4
	2020F	6.8	9.6	6.1		11.5	15.4	6.1
PBR	2018	1.1	4.2	1.0	2.0	4.4	3.8	1.0
(x)	2019F	1.0	3.0	1.2		2.7	4.1	0.6
,	2020F	0.9	2.4	1.0		2.2	3.6	0.6
ROE	2018	14.5	30.4	14.0		12.4	24.0	10.5
(%)	2019F	14.4	33.4	16.9		13.9	26.7	10.0
	2020F	13.9	30.9	17.0		18.3	21.3	9.8
EV/EBITDA	2018	3.5	8.8	3.9	1.5	13.1	9.9	5.8
(x)	2019F	3.0	7.2			6.1	11.6	4.7
	2020F	2.6	6.3			4.4	10.4	4.5
Dividend payout	2018	12.3	31.6	4.9	19.6	0.0	16.5	24.9
(%)	2019F	11.1					16.5	24.9
, ,	2020F	10.1					16.5	24.9
EPS	2018	5,722	11,703	2,041	2,885	303	2	302
(local currency)	2019F	6,409	14,494	2,910	•	397	2	325
`	2020F	7,043	16,989	3,444		619	2	343
BPS	2018	41,701	42,508	15,758	14,165	2,651	7	3,009
(local currency)	2019F	47,426	54,031	18,625	,	3,065	8	3,501
` ',	2020F	53,742	68,430	21,929		3,702	10	3,765
DPS	2018	750	3,750	100	575	•	0.3	75
(local currency)	2019F	750	3,945	100			0.3	80
( - 32 2 3))	2020F	750	5,5 .5				0.0	

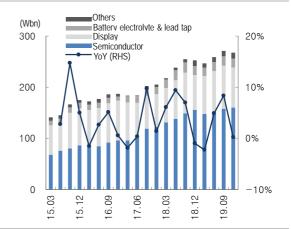
Note: As of June 3 for domestic companies/ As of May 31 for foreign companies Source: Bloomberg, Quantiwise, Daishin Securities Research Center

# Fig 1. Annual sales



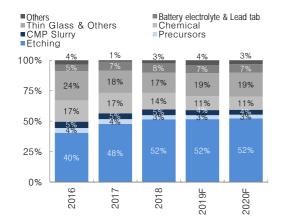
Source: Soulbrain, Daishin Securities Research Center

# Fig 2. Quarterly sales



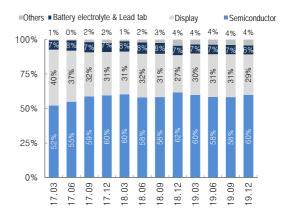
Source: Soulbrain, Daishin Securities Research Center

# Fig 3. Revenue mix (1)



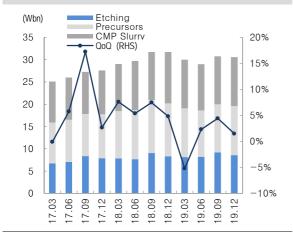
Source: Soulbrain. Daishin Securities Research Center

# Fig 4. Revenue mix (2)



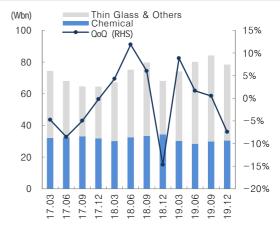
Source: Soulbrain. Daishin Securities Research Center

# Fig 5. Semiconductor revenue breakdown

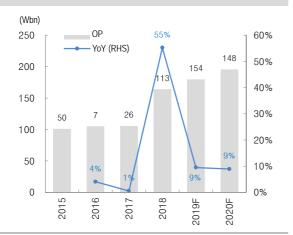


Source: Soulbrain, Daishin Securities Research Center

# Fig 6. Display revenue breakdown

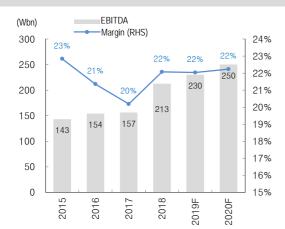


# Fig 7. Annual OP



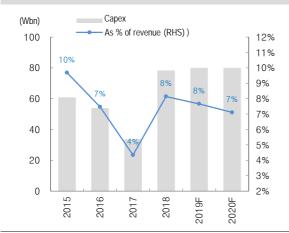
Source: Soulbrain, Daishin Securities Research Center

# Fig 9.Annual EBITDA



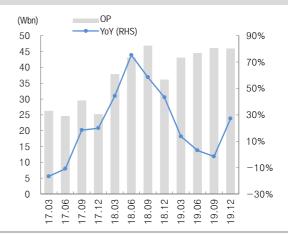
Source: Soulbrain, Daishin Securities Research Center

# Fig 11. Capex



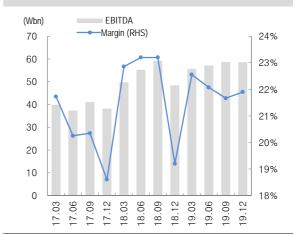
Source: Soulbrain, Daishin Securities Research Center

Fig 8. Quarterly OP



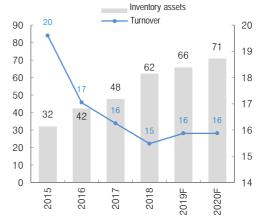
Source: Soulbrain, Daishin Securities Research Center

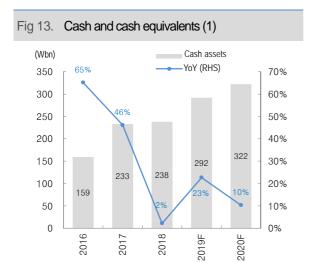
# Fig 10. Quarterly EBITDA



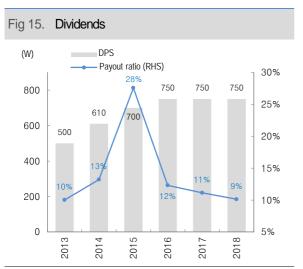
Source: Soulbrain, Daishin Securities Research Center

# Fig 12. Inventory assets



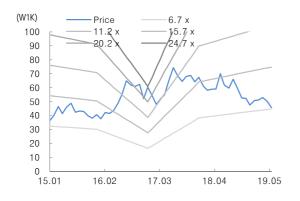


Source: Soulbrain, Daishin Securities Research Center



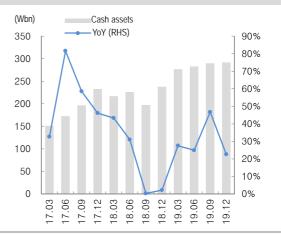
Source: Soulbrain, Daishin Securities Research Center





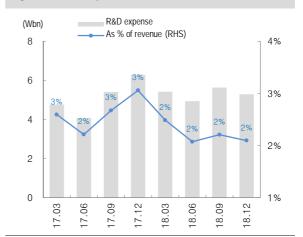
Source: Soulbrain, Daishin Securities Research Center

Fig 14. Cash and cash equivalents (2)



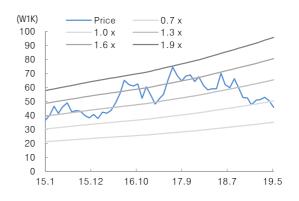
Source: Soulbrain, Daishin Securities Research Center

Fig 16. R&D expense



Source: Soulbrain, Daishin Securities Research Center

Fig 18. P/B band



# Company profile

#### Overview

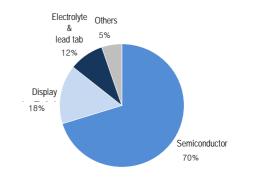
- Finances (as of Mar. 2019): Assets W1tn; liabilities W276.5bn, equity capital W766.9bn
- Major shareholders : Jeong Ji-wan 29.64%, Lim Hye-ok 6.11%
- Outstanding shares (common+preferred): 17,398,271 (treasury shares 526,253)
- Dividend payout ratio: 12.29% (as of 2018)

# Share price catalysts

 Production capacity and plant utilization at domestic semiconductor and display companies

Source: Soulbrain, Daishin Securities Research Center

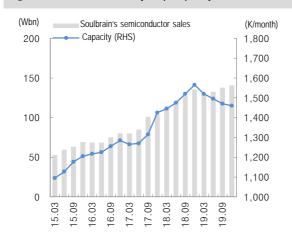
# 2019E revenue mix



Source: Soulbrain, Daishin Securities Research Center

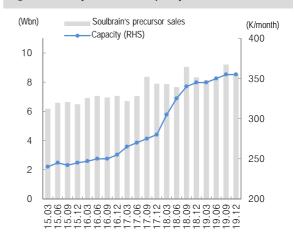
# Earnings drivers

Fig 19. Domestic memory chip capacity



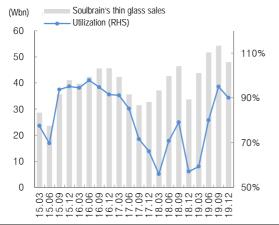
Source: Soulbrain, Daishin Securities Research Center

Fig 20. SK Hynix' DRAM capacity



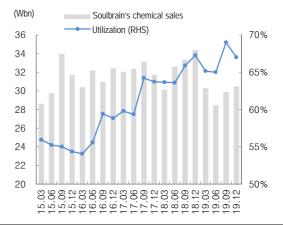
Source: Soulbrain, Daishin Securities Research Center

# Fig 21. Utilization: Samsung Display's rigid OLED fabs



Source: Soulbrain, Daishin Securities Research Center

# Fig 22. Utilization: LG Display's LCD fabs



# Financial statements

Income statement					(Wbn)
	2017A	2018A	2019F	2020F	2021F
Revenue	776	963	1,044	1,126	1,238
Cost of goods sold	604	726	800	869	956
Gross profit	171	238	244	257	283
SG&A expenses	66	74	64	61	68
OP	106	164	180	196	215
OP margin	13.6	17.0	17.2	17.4	17.4
EBITDA	157	213	230	250	273
Non-OP	-39	-17	-18	-18	-17
Income from affiliates	-7	-19	-19	-19	-19
Financial revenue	6	10	7	7	7
FX related gains	6	13	12	12	12
Financial expense	-20	-6	-5	-5	-5
FX related losses	15	2	1	1	1
Others	-18	-2	0	0	0
Income before taxes	67	147	162	178	198
Income tax expense	24	44	48	53	59
Income from cont. op.	43	103	114	125	139
Income from discont. op.	0	0	0	0	0
NP	43	103	114	125	139
NP margin	5.6	10.7	10.9	11.1	11.2
NP for non-contr. interest	2	3	2	2	3
NP for contr. interest	41	100	112	123	136
Valuation of AFS fin. assets	0	0	0	0	0
Other compreh. income	0	0	0	0	0
Comprehensive income	43	102	113	124	138
Comp. income for non-contr. Int.	2	3	2	2	3
Comp. income for contr. int.	41	98	110	121	135

Balance sheet					(Wbn)
	2017A	2018A	2019F	2020F	2021F
Current assets	377	413	477	520	579
Cash & cash equiv.	210	184	267	297	338
Trade & other receive.	78	95	101	109	119
Inventories	48	62	66	71	78
Other current assets	42	72	43	43	43
Long-term assets	518	593	634	705	771
Tangible assets	309	355	386	412	434
Investments in affiliates	120	137	183	228	274
Other long-term assets	89	101	66	65	64
Total assets	896	1,006	1,111	1,224	1,350
Current liabilities	233	253	258	262	268
Payables & other liab.	85	100	104	108	114
Borrowings	129	121	121	121	121
Current portion of LT debts	0	1	1	1	1
Other current liabilities	18	32	32	32	32
Long-term liabilities	13	19	19	17	12
Borrowings	6	15	15	13	8
Convertible securities	0	0	0	0	0
Other long-term liab.	7	4	4	4	4
Total liabilities	246	272	276	279	279
Controlling interest	645	726	825	935	1,058
Capital stock	9	9	9	9	9
Capital surplus	132	132	132	132	132
Retained earnings	514	602	701	811	935
Other capital changes	-10	-18	-17	-17	-17
Non-controlling interest	5	8	9	11	12
Total shareholder's equity	650	734	835	946	1,071
Net borrowings	-98	-101	-155	-187	-233

Valuation metrics					(W, x, %)
	2017A	2018A	2019F	2020F	2021F
EPS	2,467	5,722	6,409	7,043	7,822
PER	27.4	8.3	7.1	6.5	5.8
BPS	38,616	41,701	47,426	53,742	60,836
PBR	1.7	1.1	0.9	0.8	0.7
EBITDAPS	9,375	12,223	13,226	14,386	15,718
EV/EBITDA	6.9	3.5	2.8	2.5	2.1
SPS	46,435	55,375	60,018	64,704	71,174
PSR	1.5	0.9	0.8	0.7	0.7
CFPS	7,481	10,295	13,479	14,639	15,971
DPS	700	750	750	750	750

Financial ratios					(W, x,%)
	2017A	2018A	2019F	2020F	2021F
Growth potential					
Sales growth	7.3	242	8.4	7.8	10.0
OP growth	0.5	55.2	9.5	8.9	10.0
NP growth	-42.2	139.0	10.5	9.9	11.1
Profitability					
ROIC	16.6	26.9	26.7	27.1	28.0
ROA	12.3	17.3	17.0	16.8	16.7
ROE	6.8	14.5	14.4	13.9	13.7
Stability					
Debt ratio	37.9	37.1	33.1	29.5	26.1
Net borrowings ratio	-15.1	-13.7	-18.5	-19.8	-21.8
Interest coverage ratio	25.8	44.1	43.6	48.2	55.1

	2017A	2018A	2019F	2020F	2021F
Operating cash flows	113	186	191	205	219
NP	0	0	114	125	139
Non-cash items	82	76	121	130	139
Depreciation	51	49	50	55	58
FX gains	10	-1	-7	-7	-7
Equity method gain	-6	-3	-3	-3	-3
Others	27	32	81	86	91
Chg in assets & liab.	-13	-13	5	3	0
Other cash flows	43	123	-48	-53	-59
Investing cash flow	-47	-202	-125	-188	-188
Investment assets	-10	-56	-12	-45	-45
Tangible assets					
Others	-4	-69	-33	-62	-62
Financing cash flows	18	-12	-13	-15	-18
Short-term borrowings	0	0	0	0	0
Bonds payable	0	0	0	0	0
Long-term borrowings	-28	5	0	-2	-5
Rights offering	56	0	0	0	0
Cash dividends	-10	-12	-13	-13	-13
Others	0	-5	0	0	0
Net chg in cash	72	-26	83	30	41
Beginning cash balance	138	210	184	267	297
Ending cash balance	210	184	267	297	338
NOPLAT	68	115	126	137	151
FCF	85	82	97	112	129

Cash flow statement

#### **Appendix**

# [Daishin House View: Industry 4.0 safety rating]

- Daishin Securities assigns safety ratings to individual sectors and companies based on analyses and discussions by our analysts.
- Depending on whether Industry 4.0 will have a positive, neutral, or negative impact, each industry and company is assigned one of three safety ratings:

Dark Gray (negative) Neutral Green (neutral) Sky Blue (positive)

# [Compliance Notice]

In accordance with Subparagraph 5 of Paragraph 1 of Article 4-20 of the supervisory regulations for the financial investment industry, we confirm that no information or content has been shared prior to its release on Daishin's website, and that the analyst has not received nor will receive direct or indirect compensation in exchange for expressing specific opinions. Daishin is not affiliated with the company presented in this report. This report has been presented without any undue external influence or interference, and accurately reflects the personal views of the analyst who is responsible for its content.

This report is distributed for the purpose of helping investors make informed decisions. This report has been prepared from the data and information believed to be correct and reliable, but Daishin Securities does not make any guarantee as to the accuracy thereof. Investors reading this report should make final decisions based on their own judgment.

For U.S. persons only: For U.S. persons only: This independent third party research report is a product of Daishin Securities, which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This independent third-party research report is distributed in the United States ("US") to Major US Institutional Investors (as defined in Rule 15a-6 under the Securities and Exchange Act of 1934, as amended) by Maybank Kim Eng Securities USA Inc. ("Maybank KESUSA") and Auerbach Grayson and Company LLC, broker-dealers registered in the US (registered under Section 15 of the Securities Exchange Act of 1934, as amended). All responsibility for the distribution of this report by Maybank KESUSA in the US shall be borne by Maybank KESUSA. All responsibility for the distribution of this report by Auerbach Grayson and Company LLC.

If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor. In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, Daishin Securities has entered into an agreement with two U.S. registered broker-dealers, Maybank Kim Eng Securities USA Inc and Auerbach Grayson and Company LLC. All U.S. persons receiving and/or accessing this report and wishing to effect transactions in any security mentioned within must do so with: Maybank Kim Eng Securities USA Inc. 777 Third Avenue 21st Floor New York, New York 1- (212) 688-8886 or Auerbach Grayson and Company LLC 25 West 45th Street, New York, NY 10036 and not with the issuer of this report.

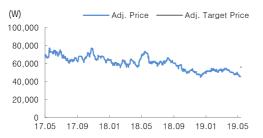
# Analyst Certification of Independence

The views expressed in this research report accurately reflect the analyst's personal views about any and all of the subject securities or issuers; and no part of the research analyst's compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

# [Investment rating & Target price history]

# Soulbrain (036830 KQ)

Diff. (max/min., %)



Date	19.06.04	
Rating	Buy	
Target price	56,000	
Diff. (avr. %)		
Diff. (max/min., %)		
Date		
Rating		
Target price		
Diff. (avr. %)		
Diff. (max/min., %)		
Date		
Rating		
Target price		
Diff. (avr. %)		
Diff. (max/min., %)		
Date		
Rating		
Target price		
Diff. (avr. %)		

Investment rating breakdown and framework (Jun. 1, 2019)

	BUY	MARKETPERFORM	UNDERPERFORM
Ratio	88.4%	11.1%	0.0%

#### Sector ratings breakdown

- Overweight: industry indicators are expected to outperform the market over the next six months.
- Neutral: industry indicators are expected to be in line with the market over the next six months.
- Underweight: industry indicators are expected to underperform the market over the next six months.

#### Company ratings breakdown

- Buy: the stock is expected to outperform the market by at least 10%p over the next six months.
- Marketperform: the stock is expected to either outperform or underperform the market by less than 10%p over the next six months.
- Underperform: the stock is expected to underperform the market by at least 10%p over the next six months.