



# TC TECH

THERMAL CYCLIC TECHNOLOGIES  
OF SWEDEN

## TC TECH Sweden AB (publ) Interim Report June 30 2018

- Net sales amounted to 0 (0) TSEK in the second quarter of 2018.
- Net profit/loss totalled -7 557 (-5 869) TSEK in the second quarter of 2018.
- Cash flow from operating activities was -6 164 (-3 657) TSEK in the second quarter of 2018.
- Net sales amounted to 0 (3 141) TSEK in the first half of 2018.
- Net profit/loss totalled -15 222 (-10 262) TSEK in the first half of 2018.
- Cash flow from operating activities was -11 210 (-7 752) TSEK in the period from 1 January to 30 June 2017.
- TC TECH has in June made a directed equity issue of 1 217 800 shares, based on the authorization granted by the AGM held on May 16th 2018. As a result of this resolution, the company's share capital increased by SEK 97.4 thousand and liquid funds by around SEK 14 million.

### Developments after year-end

- TC TECH Sweden AB (publ) has received a patent approval in Sweden for the patent application "Method and arrangement for metal processing". The approval in Sweden is the first one regarding partial hardening and extends the patent protection for the company's general technology platform. The patent will be valid until the 3rd of July 2038.
- TC TECH Sweden AB (publ) announces that the company is delivering an upgraded production system for volume production of LGPs for displays to a Taiwanese customer after successfully completed tests in the company's facilities in Stockholm. Delivery and installation in Taiwan occurred during July. Production tests are in progress for final approval.
- TC TECH has received funding of 9 MSEK from the company's main shareholder

## **Comments from Alexander Luiga, C.E.O.**

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*TC TECH's business strength lies in the company's unique technology for the rapid heating and cooling of substrates, for applications such as replication of nano patterns on Light Guide Plates (LGPs).*

During the second quarter of the year, we were mainly focusing on the preparations for the delivery of our first upgraded production system to a customer in Taiwan. The system, with the model number TCP150, will be used for volume production of high-performing LGPs for LCD displays that offer the possibility to reduce the energy consumption of the displays while at the same time improving their picture quality.

On May 16, the annual general meeting of TC TECH was held in positive anticipation of the upcoming test and delivery process. The AGM decided in accordance with the proposals by the Board, and the attendees were also given the chance to see the company's new cleanroom.

On May 20, it was announced that TC TECH had conducted a directed share issue, where several long-term institutional investors subscribed to a total of 1.217.800 shares. With the MSEK 14 in proceeds from the share issue, the company gained the financial resources necessary to be able to deliver the first units of the new production system.

In the end of May, the upgraded production systems were installed in our new cleanroom, and we were able to initiate internal testing and fine-tuning. During this process, the systems ran stable while achieving high production quality. In July, one of the systems were delivered to a customer in Taiwan, and production testing is being conducted in order to receive final approval.

With a constructive second quarter behind us, we now have a promising period ahead of us. With the new system in place in our lab, we can test and demonstrate our products in an environment that closely resemble industrial settings during high-volume production. We were visited by potential customers during the latter part of the summer, and we have also booked additional meetings for test runs of our production system here in Sweden. Following these meetings, our target is to convert one or several of these relations to confirmed orders during second half of 2018. We are also awaiting final approval for the delivery in Taiwan, and an additional production system will be delivered to Taiwan by the end of the year.

When we start to reach these milestones, while at the same time broadening our sales focus to also include the biotechnology/diagnostics market, where there is a substantial need for plastic products with very accurate patterns that resemble LGPs, we are also planning for a higher activity in our market communication during the fall and thereafter.

Becoming more visible for the actors in the market that are expected to include our products in their displays and diagnostic tools will become increasingly important now that we have the conditions in place to be able to grow into a strong, Swedish industrial company based on an innovative technology platform that is positive for the environment.

Spånga in August 2018

*Alexander Luiga, C.E.O*

## **TC TECH - business concept**

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TC TECH develops, produces and markets systems used for the replication of nanostructures in plastic products. The company has its roots in a patented induction technique, developed in-house, that makes it possible to heat and cool plastic material in record time and with great precision.

TC TECH's technology is well suited for the production of plastic components in a wide range of application areas. To begin with, however, the company has chosen to focus only on systems for the manufacture of so-called Light Guide Plates, LGP. LGP is a plastic sheet or film that diffuses and directs light from the light source behind displays used in products like mobile phones, television sets, computers and tablets. TC TECH's production method paves the way for advanced LGP, which in turn allow for better-performing displays and screens. A more advanced LGP means higher resolution, lower energy consumption and thinner displays.

TC TECH's operations are based on ten years of dedicated R&D. In the past few years, the company has designed production systems that have met with considerable interest in the display industry. TC TECH is well connected among leading producers of screens, displays and components.

TC TECH's customers are partly producers of components for screens and displays; partly companies specialized in the manufacture of LGP. At the end of the production chain we find a limited number of companies producing screens and displays – suppliers to the major actors within consumer electronics such as Apple, Sony, Panasonic etc. TC TECH's potential customers consist of a limited number of companies in Korea, Taiwan, China and Japan. Some fifteen market actors cover an estimated 90 % of the market. The value of the LGP market alone is approximated at some 50 000 MSEK.

## **Sales and earnings**

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### **April - June 2018**

Net sales amounted to 0 (0) TSEK in the second quarter of 2018. Operating loss totalled -7 517 (-5 846) TSEK, net financial items -40 (-23) TSEK, and net loss -7 557 (-5 869) TSEK.

### **January - June 2018**

Net sales amounted to 0 (3 141) TSEK in the first half of 2018. Operating loss totalled -15 153 (-10 217) TSEK, net financial items -69 (-45) TSEK, and net loss -15 222 (-10 262) TSEK.

### **Financial position**

In the second quarter of the year, cash flow from operating activities amounted to -6 164 (-3 657) TSEK, of which -1 048 (392) TSEK from changes in working capital. Cash flow from investing activities amounted to -3 789 (-927) TSEK, of which -1 566 (-219) TSEK attributable to fixed assets and -2 223 (-708) TSEK to IPR and capitalized expenditure for R&D. Cash flow from financing activities totalled 13 304 (19 000) TSEK of which 0 (0) TSEK attributable to amortization of long-term debt and 13 304 (19 000) TSEK to directed equity issue. Total cash flow for the period April to June amounted to 3 351 (14 416) TSEK.

In the first half of the year, cash flow from operating activities amounted to -11 210 (-7 752) TSEK, of which -673 (-1 086) TSEK from changes in working capital. Cash flow from investing activities amounted to -7 083 (-2 182) TSEK, of which -2 365 (-1 199) TSEK attributable to fixed assets and -4 719 (-983) TSEK to IPR and capitalized expenditure for R&D. Cash flow from financing activities totaled 13 304 (19 590) TSEK of which 0 (-40) TSEK attributable to amortization of long-term debt and 13 304 (19 630) TSEK to directed equity issue. Total cash flow for the first six months of 2018 amounted to -4 989 (9 656) TSEK.

The company's total liabilities amounted to 11 285 (7 182) TSEK on June 30<sup>th</sup> 2018, of which 4 600 (4 620) TSEK interest bearing. The major creditor was TC TECH's largest shareholder, CIMON Enterprise AB. This liability is to be repaid only when the company's cash flow so allows.

The company's net liquid assets on June 30<sup>th</sup> 2018 amounted to 1 944 TSEK, of which 6 601 TSEK were cash and cash equivalents. On June 30<sup>th</sup> 2017, the company had net liquid assets amounting to 19 837 TSEK of which 24 457 TSEK were cash and cash equivalents.

The company's shareholders' equity amounted to 29 862 (44 999) TSEK on June 30<sup>th</sup> 2018, and its equity ratio was 73% (86%).

## Human resources

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As of June 30<sup>th</sup> 2018, the company had a total number of 14 staff members, of whom 13 were employees. As of June 30<sup>th</sup> 2017, the company had a total number of 14 staff members, of whom 11 were employees.

## Risks and uncertainties

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TC TECH's operations are exposed to the following major risks:

- Market risks – TC TECH's potential sales volumes are closely linked to investments made in the display industry, and are thus exposed to the trade cycles of this industry.
- Customers – The number of display and LGP producers is limited, which entails an obvious concentration risk.
- Product quality – Should TC TECH's systems fail to fulfil customer requirements, there is a risk of declining demand for the company's products.
- Competitors – TC TECH operates on a competitive market, where most market actors have financial strengths surpassing those of TC TECH's.
- Other technologies – TC TECH's market potential may be hampered by developments in favour of other types of displays – displays that do not rely on LGP.
- Human resources – TC TECH is a small-scale company, with a limited number of employees. A number of those are key persons, essential for the continued development of TC TECH.
- IPR – Most of TC TECH's IPR are protected by patents or similar rights. Nevertheless, there will always be a risk of competitors trying to copy TC TECH's technology.

## Visions and goals

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- TC TECH's vision is to establish the company's systems as an international standard for the replication of advanced polymer products.
- Our ambition for the next few years is to establish TC TECH as a high-growth, profitable company, profiled as the leading actor within production systems for advanced LGP.
- Our technology will be gradually implemented in new application areas.

## Prospects

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Developments on the display market are prompted by producers of consumer electronics, who are demanding displays with higher resolution and lower energy consumption. They also require displays to be as thin as possible, to allow for even slimmer end products. All of these requirements call for optically more advanced LGP. The market is thus ripe for a technological shift involving a new production technology for LGP. The electronic equipment industry, to which TC TECH belongs, is first and foremost prompted by technological development called for by new product models. New models require new production methods. The market size for LGP is a function of the total number of square meters to be produced, rather than the number of screens or displays. The trend goes towards larger and larger displays in smartphones and tablets, which works to TC TECH's advantage.

## Developments after June 30<sup>th</sup> 2018

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No significant circumstances have occurred since June 30<sup>th</sup>, beside what has already been reported on page 1.

## Accounting principles

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The company applies the accounting principles of BFNAR 2012:1 (K3), which are also the accounting and reporting principles used in the preparation of the company's most recent annual report.

## Review

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This Interim report have not been reviewed by the company's auditors. TC TECH's ambition is to adhere, to the extent possible, to the regulations of the Swedish Code of Corporate Governance. Thus, the interim report as of September 30<sup>th</sup> 2018 will be reviewed by the company's auditors.

## Corporate information

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TC TECH Sweden AB (publ), corporate identity number 556852-1883. The company has its statutory seat in Stockholm, at Domnarvsgatan 4, SE-163 53 SPÅNGA. Where the company also has its operations (mainly R&D).

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[www.tctech.se](http://www.tctech.se)

TC TECH has appointed Erik Penser Bank as its Certified Adviser.

## Financial calendar

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Interim Report as of September 30 <sup>th</sup> 2018	November 7 <sup>th</sup> 2018
Year-end Report as of December 31 <sup>st</sup> 2018	February 21 <sup>st</sup> 2019
Interim Report as of March 31 <sup>st</sup> 2019	April 25 <sup>th</sup> 2019

This interim report, other interim reports published since TC TECH's listing in November 2015 and the summarized financial statement as of December 31<sup>st</sup> 2015 are available on TC TECH's website [www.tchtech.se](http://www.tchtech.se). Annual reports are published in Swedish only.

## Affirmation

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TC TECH's Board of Directors and C.E.O. hereby assure that this interim report gives a true and fair view of the company's operations, financial position and performance, and describes the essential risks and uncertainties that the company may encounter.

Stockholm, August 28<sup>th</sup> 2018

TC TECH Sweden AB (publ)

Peter Mattisson  
*Chairman of the Board*

Sven Löfquist  
*Director of the Board*

Jörgen Brandt  
*Director of the Board*

Cecilia Jinert Johansson  
*Director of the Board*

Per-Anders Johansson  
*Director of the Board*

Anders Lönner  
*Director of the Board*

Alexander Luiga  
*C.E.O.*

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## Summarized income statements, TSEK

	3 months Apr - Jun 2018	3 months Apr - Jun 2017	6 months Jan - Jun 2018	6 months Jan - Jun 2017	Full Year 2017
Net sales	-	-	-	3 141	3 141
Change in inventories of products in progress, finished goods etc.	1 153	108	1 656	169	-970
Capitalized R&D expenses	2 050	626	4 325	718	3 922
Other operating income	24	1	37	1	26
<b>Total operating income</b>	<b>3 227</b>	<b>735</b>	<b>6 018</b>	<b>4 029</b>	<b>6 119</b>
Raw materials and consumables	-1 183	-111	-1 687	-1 789	-423
Other external costs	-4 106	-1 966	-8 980	-3 694	-11 655
Personnel costs	-3 015	-2 684	-5 811	-5 167	-10 150
Depreciation	-2 440	-1 820	-4 693	-3 596	-7 542
<b>Total operating costs</b>	<b>-10 744</b>	<b>-6 581</b>	<b>-21 171</b>	<b>-14 246</b>	<b>-29 770</b>
<b>Operating profit/loss</b>	<b>-7 517</b>	<b>-5 846</b>	<b>-15 153</b>	<b>-10 217</b>	<b>-23 651</b>
<i>Operating margin %</i>	<i>Neg</i>	<i>Neg</i>	<i>Neg</i>	<i>Neg</i>	<i>Neg</i>
Net financial items	-40	-23	-69	-45	-133
<b>Profit/loss after net financial items</b>	<b>-7 557</b>	<b>-5 869</b>	<b>-15 222</b>	<b>-10 262</b>	<b>-23 784</b>
Tax	-	-	-	-	-
<b>Net profit/loss for the period</b>	<b>-7 557</b>	<b>-5 869</b>	<b>-15 222</b>	<b>-10 262</b>	<b>-23 784</b>

## Summarized balance sheets, TSEK

	2018 June 30	2017 June 30	2017 Dec 31
<b>Assets</b>			
Intangible fixed assets	21 397	19 557	20 152
Tangible fixed assets	8 130	5 070	6 977
<b>Total fixed assets</b>	<b>29 527</b>	<b>24 627</b>	<b>27 129</b>
Products in progress/for resale	2 883	2 136	1 227
Current receivables	2 136	961	1 881
Cash and bank balances	6 601	24 457	11 590
<b>Total current assets</b>	<b>11 620</b>	<b>27 554</b>	<b>14 698</b>
<b>Total assets</b>	<b>41 147</b>	<b>52 181</b>	<b>41 827</b>
<b>Equity and liabilities</b>			
Shareholders' equity	29 862	44 999	31 780
Interest-bearing liabilities	4 658	4 620	4 600
Non-interest-bearing liabilities	6 627	2 562	5 447
<b>Total equity and liabilities</b>	<b>41 147</b>	<b>52 181</b>	<b>41 827</b>

## Summarized cash flow analyses, TSEK

	<b>3 months Apr - Jun 2018</b>	<b>3 months Apr - Jun 2017</b>	<b>6 months Jan - Jun 2018</b>	<b>6 months Jan - Jun 2017</b>	<b>Full Year 2017</b>
Cash flow from operating activities	-6 164	-3 657	-11 210	-7 752	-16 182
Cash flow from investing activities	-3 789	-927	-7 083	-2 182	-7 923
Cash flow from financing activities	13 304	19 000	13 304	19 590	20 894
Cash flow for the period	3 351	14 416	-4 989	9 656	-3 211
<i>Cash and cash equivalents, opening balance</i>	<i>3 250</i>	<i>10 041</i>	<i>11 590</i>	<i>14 801</i>	<i>14 801</i>
<i>Cash and cash equivalents, closing balance</i>	<i>6 601</i>	<i>24 457</i>	<i>6 601</i>	<i>24 457</i>	<i>11 590</i>

## Data per share

	<b>3 months Apr - Jun 2018</b>	<b>3 months Apr - Jun 2017</b>	<b>6 months Jan - Jun 2018</b>	<b>6 months Jan - Jun 2017</b>	<b>Full Year 2017</b>
Earnings per share, SEK <sup>1)</sup>	-0,63	-0,54	-1,28	-0,95	-2,12
Earnings per share, SEK, diluted <sup>2)</sup>	-0,63	-0,54	-1,28	-0,95	-2,12
Equity per share <sup>1)</sup>	2,48	4,17	2,52	4,17	2,84
Cash flow from operating activities per share, SEK <sup>1)</sup>	-0,51	-0,38	-0,95	-0,72	-1,44
Share price on closing day, SEK	12,85	27,80	12,85	27,80	16,50
Number of shares on balance sheet day	12 856 083	10 616 583	12 856 083	11 616 583	11 638 283
Number of shares on balance sheet day, diluted <sup>2)</sup>	13 281 308	12 063 508	13 281 308	12 063 508	12 063 508
Number of shares, weighted average	12 053 138	10 819 880	11 846 856	10 786 998	11 208 361
Number of shares, weighted average, diluted <sup>2)</sup>	12 478 363	11 266 805	12 272 081	11 248 591	11 659 399

<sup>1)</sup> Earnings and cash flow per share are based on the weighted average number of shares in the period. Equity per share is based on the total number of issued shares on balance sheet day.

<sup>2)</sup> As of June 30<sup>th</sup> 2018, the company had one warrant commitment in force. In August 2015, TC TECH issued 500 000 share warrants giving the right to subscribe for a maximum of 500 000 shares. The exercise period runs from 2016-01-01 to 2018-12-31, the exercise price corresponding to SEK 14 per share. The warrants have been acquired at market value by persons deemed to be essential for the continued development and success of the company. In 2016, a total of 8 075 of these warrants were exercised, whereby TC TECH's share capital increased by SEK 1 336, and the number of issued shares by 16 700. In 2017, a total of 66 700 of these warrants were exercised. Whereby the share capital increased by 5 336 SEK, and the number of issued shares by 66 700. Thereby, a total of 425 225 warrants now remain to be exercised. In all, should all outstanding warrant commitments be fully exercised, the new shares would correspond to 3.2 % of the total number of issued shares.



## Changes in equity, TSEK

	Share capital	Share premium reserve	Retained earnings - P/L for the period	Total equity
<b>January 1 2017</b>	<b>3 485</b>	<b>66 578</b>	<b>-34 432</b>	<b>35 631</b>
New share issues	70	20 560	-	20 630
Issue expenses	-	-1 000	-	-1 000
Transfer to development fund	412	-	-412	-
Loss for the period	-	-	-10 262	-10 262
<b>June 30 2017</b>	<b>3 489</b>	<b>86 138</b>	<b>-45 106</b>	<b>44 999</b>
New share issues	2	302	-	304
Transfer to development fund	2 703	-	-2 703	-
Loss for the period	-	-	-13 523	-13 523
<b>December 31 2017</b>	<b>6 672</b>	<b>86 440</b>	<b>-61 332</b>	<b>31 780</b>
New share issues	97	13 907	-	14 004
Issue expenses	-	-700	-	-700
Transfer to development fund	3 390	-	-3 390	-
Loss for the period	-	-	-15 222	-15 222
<b>June 30 2018</b>	<b>10 159</b>	<b>99 647</b>	<b>-79 944</b>	<b>29 862</b>

In the period 1 January – 31 December 2017, the company made four new share issues: one directed issue of 833 333 shares, and three issues totalling 66 700 shares prompted by the exercise of 66 700 warrants.

During the first quarter of the year 2018, the company has made no new share issues. In the second quarter of 2018 a directed equity issue of 1 217 800 shares was made.

## Key ratios

	3 months Apr - Jun 2018	3 months Apr - Jun 2017	6 months Jan - Jun 2018	6 months Jan - Jun 2017	Full Year 2017
Operating margin, %	Neg	Neg	Neg	Neg	Neg
Equity/assets ratio, %	73 %	86 %	73 %	86 %	76 %
Liquid assets, net (TSEK)	1 944	19 837	1 944	19 837	6 990
Market cap, at end of period, TSEK	149 552	322 941	149 552	322 941	192 032