



# Interim Report and Financial Statements

First Quarter **2017**



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## Highlights

- Record Q1 Revenue; 5M+ Units of EAS Tags Shipped, 16M Units on Open Order
- Thinfilm Completes First Commercial Shipment of Temperature-Sensor Smart Labels
- CNECT™ Cloud Platform Supports Multiple Field Trials; 80+ Customers and Partners as Registered Users
- Thinfilm Strengthens Thought Leadership Position by Authoring *NFC Mobile Marketing For Dummies®* Book
- Korean Red Cross Uses SpeedTap™ Tags to Ensure Delivery of Relief Items to 20,000 Homes
- SpeedTap ‘Smart Coasters’ Drive Earth Day Marketing Program for Coronado Brewing Company
- Thinfilm Receives Pilot Order from European Tobacco Company, Plans Field Trial with Leading Medical Marijuana Dispensary
- Thinfilm Moves into New US Headquarters; Reinstallation of Sheet-Based Manufacturing Underway, EAS Roll-Based Line Ordered

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# Business Review

The first quarter of 2017 marked a period of rising sales momentum as Thinfilm experienced increased traction across its entire range of products. In February and March, Thinfilm received two orders – 10 million units in total – for its EAS (electronic article surveillance) tags from the Company's go-to-market partner, and subsequently shipped more than five million units during Q1. Thinfilm booked an additional 11 million unit follow-up order in early Q2, leaving booked orders of 16 million total EAS units pending delivery.

Commercial delivery of NFC products also rose, as Thinfilm more than doubled customer shipments of its SpeedTap™ tags in Q1 2017 as compared to limited Q4 2016 shipments. The increase in NFC (near field communication) shipments – along with the volume delivery of EAS anti-theft tags – led to record Q1 revenues for the Company year-over-year. Thinfilm also expects to more than double NFC shipments in Q2 as compared to Q1 from a mixture of commercial and pilot customers, with forecasts projecting yet another doubling in shipments for Q3 compared to Q2. EAS shipments are also expected to continue rising.

To complete the range of its IoT product offerings, Thinfilm completed qualification and started commercial shipment of its temperature-sensor smart labels in early May. The initial shipment was delivered to its go-to-market partner for perishable foods, Emerson. Further deliveries to Temptime, for use in the pharmaceutical cold-chain space, are scheduled for June.

The dramatic increase in traction can be attributed to the fact that the Company now offers a complete NFC mobile marketing solution with the addition of CNECT™ – Thinfilm's partner portal launched this past February. More than 80 customers and partners are currently registered users of this powerful cloud-based platform, which integrates with Thinfilm's NFC hardware and provides brands and digital agencies with a simple and secure way to store, manage, and track tags while addressing key business needs such as consumer engagement and product authentication.

During the quarter, pilot orders for NFC tags were received from a number of new customers – including a multi-national tobacco firm, a leading medical marijuana dispensary, and the Korean Red Cross. It is estimated that, through the collaboration with the Korean Red Cross, Thinfilm's NFC technology will reach more than 20,000 homes in South Korea. Other vertical markets associated with the field trials include pharma, medical devices, craft beer, and wine & spirits.

In order to provide consumer brands with an insightful, easy-to-read guide on how to create effective mobile marketing campaigns using NFC as a core technology, Thinfilm released a thought leadership publication titled *NFC Mobile Marketing For Dummies*® in conjunction with publisher John Wiley & Sons, Inc. Already in the first week of distribution, hundreds of copies have been downloaded and distributed by Thinfilm to prospective customer brands, digital agencies, and others interested in the proliferation of smart objects powered by NFC.

In April, Thinfilm relocated to its new US headquarters at 2581 Junction Avenue in San Jose, by all accounts one of the finest electronics-grade manufacturing cleanrooms in Northern California. The new facility will house Thinfilm's recently ordered roll-based manufacturing line, which will enable the ultra-scale production of EAS and NFC front-end die and position the Company to meet the growing demands of leading consumer brands worldwide. Re-installation and qualification of Thinfilm's current sheet-based NFC and EAS manufacturing lines are already underway, while equipment for the roll-based line is expected to begin arriving on schedule in late Q3. Of 14 new roll-based process modules used in NFC manufacturing, 12 have already been ordered while orders for the remaining units are expected to be completed by the end of May.

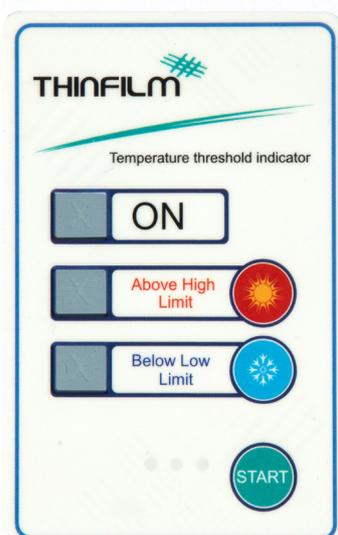


## Thinfilm Generates Record Q1 Revenue; 5M+ Units of EAS Tags Shipped, 16M Units on Backorder

The revenue generated by Thinfilm in Q1 2017 was a first-quarter record for the Company driven, in large part, by increased traction in NFC products among consumer brands. Thinfilm more than doubled shipments of NFC products from Q4 2016 to Q1 2017, and anticipates shipping more than twice as many NFC units in Q2 2017 as compared to the previous quarter. The Company also shipped over five million units of EAS anti-theft tags to its lead customer, in addition to receiving follow-on orders of 10 million tags (Q1) and 11 million tags (April of Q2). There are currently 16 million units of EAS pending delivery, and Thinfilm expects to continue making monthly shipments through Q3 2017.

## Thinfilm Completes First Commercial Shipment of Temperature-Sensor Smart Labels

Thinfilm completed the first commercial shipment of its temperature-sensor smart labels in early May to go-to-market partner and cold-chain solutions leader, Emerson, for the perishable food market. Emerson will share the labels with lead clients and prospective customers in advance of Thinfilm's formal product launch, which is targeted for Q4. The temperature-sensing smart labels are thin, flexible, credit card-sized devices – featuring printed displays manufactured at Thinfilm's Linköping, Sweden facility – and detect temperature excursions outside of a pre-determined range. They fill a critical gap in the market between low-end chemical-based sensors and more expensive data loggers. Missouri-based Emerson announced that it had acquired PakSense, Thinfilm's original go-to-market partner for cold-chain monitoring of perishable goods, on August 30, 2016. Additional deliveries to Temptime, for use in the pharmaceutical cold-chain space, are scheduled for June.



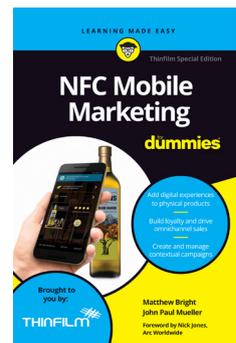
## CNECT™ Cloud Platform Supports Multiple Field Trials; 80+ Customers and Partners as Registered Users

Thinfilm now has more than 80 account customers, prospects, marketing agencies and partners on CNECT, the powerful cloud-based software platform it launched in February of this year. The Company now has four live field trials in-market – covering geographies in the US, Canada, Europe and China – with Coronado Brewing Company, a Fortune 500 pharmaceutical firm, an Asian cosmetics materials firm, and Northern Lights Spirits. Preparations for six to 10 additional field trials are underway, which the Company anticipates launching later in Q2 and early Q3. Uses of CNECT range from real-time management of in-market NFC solutions, to support of NFC mobile marketing field trials, to execution of internal proof-of-concept initiatives. CNECT integrates with Thinfilm SpeedTap™ and OpenSense™ tags to enable remote tag management, custom content delivery, consumer activity tracking, and detailed analytics and reporting. The total number of on-platform clients is expected to increase with the May launch of Thinfilm's IoT-CNECT Box, an affordable quick-start offering that enables turnkey implementation and proof-of-concept analysis for NFC mobile marketing solutions.



## Thinfilm Strengthens Thought Leadership Position by Authoring *NFC Mobile Marketing For Dummies®* Book

Thinfilm, in conjunction with publisher John Wiley & Sons, Inc., has officially released *NFC Mobile Marketing For Dummies*, Thinfilm Special Edition. The book, available in both print and e-book format, provides consumer brands of all sizes with an insightful, easy-to-read guide on how to get started in mobile marketing using NFC as a centerpiece technology. The book also explains 1) how to craft compelling NFC mobile experiences and marketing campaigns to drive revenue and brand loyalty, 2) which use cases benefit the most from digital product identities and smart packaging, 3) how the right implementation can improve brand loyalty and drive mobile commerce, and 4) how to use the customization potential of the cloud to enable contextual marketing that reaches new customers and keeps current customers happy. Hundreds of copies have already been downloaded and distributed by Thinfilm to prospective customer brands, digital agencies, and others interested in the proliferation of smart objects powered by NFC. The e-book is available for download on the Thinfilm website.

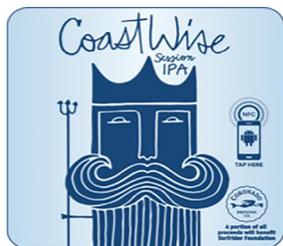


## Korean Red Cross Uses SpeedTap™ Tags to Ensure Delivery of Relief Items to 20,000 Homes

Thinfilm announced a partnership with the Korean Red Cross in South Korea to use SpeedTap tags to enhance the delivery of critical items to relief victims throughout the country. Through the initial deployment, it is anticipated that Thinfilm technology will reach more than 20,000 homes in South Korea. Thinfilm's NFC technology replaces the paper-based confirmation process currently used by the Korean Red Cross in its 'Windmill of Hope' program to verify delivery and receipt of relief items and services such as food, clothing, medication, and personal supplies. The new solution leverages Thinfilm's NFC SpeedTap tags to drive program efficiency and ease administrative burdens for program directors. The NFC technology will also ensure full transparency regarding the exchange of goods between volunteers and those who receive support. A volunteer can simply scan a delivery receipt containing a SpeedTap tag with a smartphone or NFC device once a transaction is completed. The scan instantly confirms the exchange of goods and/or services and sends related data to the cloud in real-time for recordkeeping, reporting and analysis.

## SpeedTap 'Smart Coasters' Drive Earth Day Marketing Program for Coronado Brewing Company

The Coronado Brewing Company of San Diego, California, is using Thinfilm SpeedTap tags in an Earth Day mobile marketing program launched in collaboration with the Surfrider Foundation, a global non-profit dedicated to protecting the world's oceans and beaches. A key component of the program is Coronado's 'smart coasters', which feature Thinfilm's NFC technology and allow consumers to learn about Coronado products through the tap of a smartphone. The Earth Day coasters are being used to promote a new Coronado/Surfrider collaboration beer called 'CoastWise Session IPA', a portion of whose sales proceeds are being donated to the Surfrider Foundation.



## Thinfilm Wins Field Trials Following Receipt of Pilot Orders in Medical Marijuana and European Tobacco

Thinfilm is preparing to launch NFC solutions field trials after receiving SpeedTap pilot orders from a medical marijuana dispensary and a Europe-based tobacco firm. The medical marijuana company, an industry-leading dispensary located in Northern California, will use Thinfilm's SpeedTap tags and the CNECT™ cloud-based software platform to enhance patient engagement and drive consumer loyalty. In addition, a leading multinational tobacco company based in Western Europe will use SpeedTap tags for mobile marketing and consumer education. The Europe-based customer represents new geographic penetration for Thinfilm within the tobacco vertical, following previously announced tobacco-related clients in the US and Asia. Field trials for both new customers are anticipated to commence in the second quarter.

## Thinfilm Moves Into New US Headquarters; Installation of Roll-to-Roll Manufacturing Line Set to Begin in Q3

On April 24, Thinfilm employees officially moved from the Company's Zanker Road facility into the new US headquarters at 2581 Junction Avenue in San Jose, California. The 93,000 square-foot building was formerly owned by Qualcomm and features a 22,000 square-foot cleanroom – one of the finest electronics-grade manufacturing cleanrooms in Northern California. The site will house Thinfilm's new roll-to-roll manufacturing line, which will facilitate the mass production of the Company's NFC and EAS tags and enable a capacity increase from a few million units per month via sheet-based processing to billion-unit annual production volumes. Re-installation and qualification of Thinfilm's current sheet-based NFC and EAS manufacturing lines is already underway. Equipment for the roll-based line is expected to begin arriving on schedule in late Q3. Twelve of the 14 new roll-based process modules used in NFC manufacturing have already been ordered while it is anticipated that orders for the remaining units will be completed by the end of May.



# Shows and Events

## Consumer Electronics Show (CES)

**January 5-8, 2017, Las Vegas, NV**

CES is one of the world's largest trade shows for consumer technology. Thinfilm's Erwan Le Roy, EVP Business Development & GM NFC Solutions and Smart Sensor Products, presented "Using Printed Electronics Technology to Bridge the Gap Between the Physical and Digital Worlds" during the OE-A Conference track titled **Printed Electronics: Enabling the Future**. Thinfilm hosted investor and analyst meetings throughout the show.

## Winter Fancy Food Show

**January 22-24, 2017, San Francisco, CA**

The Fancy Food Show is hosted by the Specialty Food Association, an organization committed to bringing the emotional experience of specialty foods to the consumer. Thinfilm showcased its mobile marketing solution with use cases in olive oil, craft beer and wine.

## Printed & Flexible Electronics Congress 2017

**February 21-22, 2017, London, UK**

This conference examined the latest applications as well as scientific, technological and business trends that will advance the field and accelerate R&D to commercialization. Dr. Peter Fischer, Chief Operating Officer, Thinfilm, delivered a keynote speech "Connecting Physical Objects to the Digital World with Printed Electronics".

## Mobile World Congress

**February 27 – March 2, 2017, Barcelona, Spain**

More than 108,000 people attended Mobile World Congress 2017 and Thinfilm was one of the 2,300 companies that participated in the exhibition. Thinfilm conducted investor and analyst meetings at the Innovation Norway Pavilion and demonstrated the functionality of the CNECT™ software portal.

## eTail West

**February 27 – March 2, 2017, Palm Springs, CA**

eTail is an eCommerce and multi-channel event featuring over 220 speakers representing America's largest retailers, innovative startups and eCommerce disruptors. Thinfilm sponsored this event and engaged with fellow attendees via social media channels.

## California Olive Oil Council Annual Meeting

**March 9 - 10, 2017, Monterey, CA**

Thinfilm was a sponsor of the tradeshow portion of this annual meeting. Sponsorship included a tabletop exhibit where Thinfilm demonstrated how its NFC technology in combination with the award-winning iOlive app can authenticate products and drive eCommerce.

## ProWein

**March 19 - 21, 2017, Dusseldorf, Germany**

ProWein is the world's leading trade fair for wine and spirits, and the largest industry meeting for professionals from viticulture, production, trade and gastronomy. Thinfilm exhibited at this event, showcasing its NFC solutions for Wines & Spirits and the CNECT Software Portal.

## LOPEC

**March 28 - 30, 2017, Munich, Germany**

LOPEC focuses on current trends, presents innovative products, highlights new market opportunities for the Printed Electronics industry and helps foster the development of new materials, manufacturing technologies and applications. Thinfilm demonstrated use cases for printed electronics in specialty foods, beverages, and luxury goods during the exhibition. Dr. Peter Fischer, Chief Operating Officer, Thinfilm, presented "End-to-end NFC solutions enable the Internet of Everything".

## Whiskies & Spirits Conference

**March 30, 2017, Munich, Germany**

The 2017 Whiskies & Spirits Conference Europe brought together the industry's international leaders in an open forum to talk about the commercial opportunities and challenges that confront the global spirits industry. Thinfilm was a sponsor of this event and demonstrated its NFC solutions for Wines & Spirits and the CNECT Software Portal.



# Thinfilm Product Families

## NFC Solutions

**NFC SpeedTap™ Tags:** NFC SpeedTap tags are wireless tags that combine the instant interactivity of Near Field Communication (NFC) with the advantages of printed electronics technology. NFC SpeedTap tags enable smartphones to communicate with everyday objects in support of B2B and B2C use cases.



**NFC OpenSense™ Tags:** Thinfilm's proprietary and patent-pending NFC OpenSense technology provides smartphone-centric NFC readability before and after product opening. Unique identifiers within each OpenSense tag support applications for fighting product diversion, counterfeiting, unauthorized refills, and the use of forged containers. On the consumer side, brand marketers can benefit from enhanced consumer engagement capabilities.

**CNECT™ Partner Portal:** CNECT is a multi-tenant cloud-based platform that allows brands to connect with consumers by enabling engagement through a direct tap or swipe of an NFC label, such as Thinfilm's SpeedTap and OpenSense tags. The platform provides a turnkey solution for managing and tracking the tags and deploying campaigns for consumer engagement, instant re-ordering, and product authentication, as part of a brand's omnichannel mobile marketing strategy. CNECT will soon be extended to manage launch of augmented reality experiences, and has potential for use when NFC labels act as a trigger mechanism in creating blockchains.

## About Thinfilm

Thin Film Electronics ASA ("Thinfilm") is a global leader in NFC mobile marketing and smart-packaging solutions using printed electronics technology. Thinfilm creates printed tags, labels, and systems that include memory, sensors, displays, and wireless communication — all at a cost-per-function unmatched by conventional electronic technologies.

Thinfilm offers end-to-end mobile marketing solutions that feature hardware, label/packaging integration services, and comprehensive cloud-based reporting and analytics. Collectively, these components deliver a powerful 1-to-1 digital marketing platform through which brands of all sizes can connect directly with consumers, all with the simple tap of a smartphone. The resulting disintermediation of search engines, online marketplaces, and social platforms empowers brands to control messaging, enhance consumer dialogue, build loyalty, increase engagement, and drive sales.

Thinfilm's roadmap integrates technology from a strong and growing ecosystem of partners to bring intelligence to everyday, disposable items. Its mission is to effectively extend the traditional boundaries of the Internet of Things to fuel the Internet of Everything.

Thin Film Electronics ASA ("Thinfilm") is a publicly listed Norwegian company with global headquarters in Oslo, Norway; US headquarters in San Jose, California; and offices in Linköping, Sweden; San Francisco; London; and Shanghai.

## Smart Label Sensors

Thinfilm has developed a smart label platform and a line of intelligent labels featuring memory, displays, logic, sensing capabilities, and wireless communication. The labels can sense distinct phenomena and store data for 80% to 90% less than the cost of conventional electronics. This is part of Thinfilm's vision to bring the Internet of Everything to even the lowest-cost items.

## Electronic Article Surveillance (EAS) Tags

Thinfilm EAS tags use a proprietary process to improve traditional electronic article surveillance technology by introducing a new category of thin, flexible anti-shoplifting tags. These next-generation labels are compatible with the global base of installed 8.2MHz RF EAS infrastructure.

## Thinfilm Memory

**Smart Consumables Solution:** Thinfilm Memory labels for Smart Consumables is a cost-effective read/write memory solution for interactive consumable refills and other plug-and-play product offerings. The non-volatile, rewritable memory — printed on a thin, flexible label — facilitates an electronic handshake between base units and refills while making consumables interactive and enabling usage tracking. This product is also sold by Xerox as Xerox® Printed Memory.

**Brand Protection Solution:** Thinfilm Memory labels for Brand Protection is a two-part system that can help manufacturers protect their brands from counterfeiting and grey-market activity. It consists of adhesive labels that generate a distinct forensic electrical signature. A Thinfilm authentication unit reads the label. This product is also sold by Xerox as Xerox® Printed Memory and Xerox® Printed Memory with Cryptographic Security.

# Condensed Consolidated Financial Report as of 31 March 2017

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Thinfilm experienced an increasing momentum in sales for both its NFC products as well as EAS anti-theft tags, resulting in its highest Q1 revenue ever. The growth came from both new and existing NFC customers and partners as well as being a result of a record high EAS (electronic article surveillance) tags order of 10-million-units of which more than five million were shipped in the quarter. The partnership with the global Fortune 500 pharmaceutical company continued through the first three months of 2017 as well, also leading to substantial contribution to revenues. The activity level remains high into Q1 and the company expects to ship an even higher number of NFC products in the coming quarter as well as having a backorder of 16 million EAS units. Operating cost were overall on level with the preceding quarter.

## Profit and Loss

Thinfilm's revenue and other income in the first quarter of 2017 amounted to USD 1,115 thousand, 37% higher than the same period in 2016 (Q1 2016: USD 811 thousand). Excluding the other income recognized in the period, total revenue was USD 995 thousand, an increase of USD 288 thousand, or 41%, compared to the preceding year (Q1 2016: USD 707 thousand). Sales revenue amounted to USD 677 thousand in the first three months of 2017, compared to USD 150 thousand in the same period in 2016, and was largely related to product development projects, delivery of prototypes and products to strategic customers and partners, technology transfer revenue as well as product deliveries. The increase in sales revenue, year on year, is primarily due to shipment of 5 million EAS (electronic article surveillance) tags to our go-to-market partner, as well as continued Joint Development Agreement (JDA) revenues from the partnership with a global pharmaceutical company. Revenue related to government grants and other funded projects amounted to USD 319 thousand in the period (Q1 2016: USD 557 thousand). The 43% decrease is largely explained by funded projects being finalized. Other income amounted to USD 120 thousand in Q1 2017 (Q1 2016: 104 thousand) and was entirely related to sublease income from the San Jose site.

Operating costs (excluding depreciation and amortization charges) amounted to USD 12,514 thousand in the first three months of 2017, including the cost of share-based compensation of USD 377 thousand. The corresponding figure for Q1 2016 was USD 9,229 thousand and USD 186 thousand respectively. The increase in operating costs in Q1 2017, compared to Q1 2016, was USD 3,329 thousand, primarily attributable to:

- 1) USD 1,503 thousand higher payroll costs, mainly related to an overall increase in the number of global FTEs (full-time equivalents) to 152 as of 31 March 2017, compared to 103 one year earlier. The increase in FTEs has been most significant in the US subsidiary as a result of a shift in number of employees located in US versus Sweden and a generally higher activity level in the US. This development is a result of a strengthening of the organization, primarily in the US, as the focus has shifted from development to production and providing solutions to partners and customers. Developing the new roll-to-roll production line also requires additional FTEs.
- 2) USD 1,193 thousand higher costs for premises and supplies, as production activities increased significantly from the end of 2015, particularly at The NFC Innovation Centre, in San Jose, which is a front-end production facility, currently in operation 24 hours per day, 7 days per week. While the bulk of the production currently remains non-revenue generating (engineering lots used for yield, design, and product development work), the cost impact is close to that of a fully ramped facility.

While resources allocated to production related activities are increasing markedly, Thinfilm still uses a significant share of its resources on R&D activities. In Q1 2017 USD 3,584 thousand were spent developing roll-to-roll printing processes, printed batteries and displays. The corresponding amount for Q1 2016 was USD 2,650 thousand.

Investments in fixed and intangible assets amounted to USD 4,872 thousand in the first three months of 2017, compared to USD 1,774 thousand in the same period in 2016. The investments in Q1 2017 are mostly related to equipment for the new roll-based production line at the San Jose site. The investments in Q1 2016 were mainly related to equipment and tools for the EAS and PDPS line as well as improvements to the San Jose site. In the first three months of 2017 Thinfilm also made prepayments amounting to USD 4,162 thousand relating to investments in equipment and machinery. These prepayments are recognized as other receivables since the equipment and machinery had not been received from the supplier as of 31 March, 2017. Depreciation, amortization and impairment charges in Q1 2017 amounted to USD 900 thousand (Q1 2016: USD 552 thousand). Net financial items in the three first months of 2017 amounted to a gain of USD 788 thousand (Q1 2016: USD 967 thousand loss), and were mainly related to currency variations. The Company operates at a loss and there is a tax loss carry forward position in the parent company and in the Swedish subsidiary. While local taxes are incurred in some of the subsidiaries, the parent company in Norway has not incurred any tax costs in 2017 or the prior year. The Company has not recognized any deferred tax assets in its balance sheet relating to these tax loss carry forward positions, because this potential asset does not yet qualify for inclusion. The net result in the first quarter of 2017 was a loss of USD 11,511 thousand, corresponding to a basic loss per share of USD 0.01. In Q1 2016, the loss amounted to USD 10,236 thousand, corresponding to a basic loss per share of USD 0.02.

## Cash Flow

The group's cash balance decreased by USD 21,607 thousand in the first quarter of 2017 (compared to a decrease of USD 12,137 thousand in Q1 2016). The decrease in cash balance is explained by three principal elements: 1) an outflow of USD 17,045 thousand from operating activities, 2) a USD 4,866 thousand outflow from investing activities and 3) a USD 24 thousand inflow from financing activities. The USD 17,045 thousand outflow from operating activities is primarily explained by an operating loss excluding depreciation, amortization and impairment charges of USD 11 399 thousand as well as a working capital build-up of USD 4,162 thousand relating to the already mentioned prepayments made on equipment and machinery. The cash balance on 31 March 2017 amounted to USD 52,597 thousand, while cash net of receivables and payables amounted to USD 55,103 thousand. The cash balance on 31 March 2016 amounted to USD 49,122 thousand, while cash net of receivables and payables amounted to USD 44,620 thousand.

## Balance Sheet

The Company's balance sheet is comprised of fixed & intangible assets, financial lease, cash, receivables, deferred tax liabilities, long-term financial lease liabilities, payables & accruals, and equity. Fixed assets on 31 March 2017 amounted to USD 13,379 thousand and stem from machinery and equipment in San Jose, California, and Linköping, Sweden. The Company has a Financial lease booked in the balance sheet which amounts to USD 12,339 thousand and relates to the new US headquarter. In addition, USD 3,211 thousand in intangible assets are on the balance sheet, mainly as a result of the acquisition of assets from Kovio, Inc. in 2014, and licensing of technology.

## Principal Risks

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Thinfilm is exposed to various risks of a financial and operational nature. It is the duty of the Board to present the principal risks of Thinfilm and its business. The Company's predominant risks are market and business risks, summarized in the following points:

- I. Many of the emerging markets that Thinfilm targets, as well as the markets it intends to pursue, are still immature and there is a potential risk of delays in the timing of sales.
- II. To some extent, Thinfilm is dependent on continued collaboration with technology, material, and manufacturing partners.
- III. There may be product-development risks that arise related to cost-functionality competitiveness of the products Thinfilm is developing.
- IV. Long-term funding risk is a possibility, as the Company is not yet cash generative and there is uncertainty tied to the generation of future cash flow.

Going forward, Thinfilm foresees three important revenue sources:

1. Sales of its own designed and manufactured products, and;
2. Licensing/royalty revenue, where partners and customers pay for using the Company's intellectual property rights (IPR), and;
3. Monetization of Thinfilm's CNECT™ software platform.

Thinfilm's ability to earn revenue partly depends on continued successful technology and product development as well as the Company's ability to legally protect its IPR. This, in turn, depends on the Company's ability to attract and retain competent staff and the adequacy of Thinfilm's patenting and other IP-protection activities.

Thinfilm is exposed to certain financial risks related to fluctuation of exchange rates and interest level.

The going concern assumption has been applied when preparing this interim financial report.

The Board has formed a judgment that as of the date of approving the financial statements, the Company has adequate resources to fund operations for the rest of 2017 and into 2018. The Company anticipates seeking additional funding in 2017 or early 2018 to get Thinfilm to a cash break-even point, and will explore several options, one of which may be to secure the capital through the exercise of outstanding warrants held by investors. On 31 March 2017, the equity amounted to USD 71,970 thousand, representing 79% of the gross balance sheet and 519% of the share capital.

## Outlook

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Thin Film Electronics ASA ("Thinfilm") is developing technology that is expected to be critical to the extension of the Internet of Things to ordinary objects. Thinfilm's NFC OpenSense™ and SpeedTap™ labels communicate wirelessly with appropriately configured NFC-enabled smartphones, and can be applied to consumables and other disposable objects. The inclusion of NFC in smartphones increased dramatically over the past several years. According to NFC Forum, the number of smart phones with NFC reached 1.7 billion in 2016. Annual shipments of NFC devices are expected to exceed 2 billion by 2018. In addition, applications beyond payments are now being introduced, and most major OEM smartphone manufacturers are now members of NFC Forum, including Samsung and Apple, where Thinfilm continues to chair the Retail Working Group.

In 2016, Thinfilm completed the technology transfer of its printed memory IP to Xerox, including process knowledge and testing technology. This transfer enabled Xerox to begin manufacturing Thinfilm memory. The transfer will lead to royalty payments to Thinfilm given that Xerox obtains sufficient commercial traction in the future. Thinfilm began mass-production of wireless tags for electronic article surveillance (EAS) in 2015. It completed an original 13M unit order in 2016. After re-qualification of the EAS product to include shipments of wet inlays, the Company has received follow-up orders from its go-to-market partner in 2017. Thinfilm has in the first quarter of 2017 shipped in the excess of 5 million EAS Tags and currently has 16 million units in open orders.

Thinfilm announced the launch of NFC wireless products in 2015, with pilot deliveries of NFC OpenSense™ labels to lead customers in several verticals, including wines, spirits, and medical products. In 2016, Thinfilm strengthened its go-to-market channels by creating a preferred converter program, and the Company also partnered with a global pharmaceutical firm and established customers in new additional verticals.

Thinfilm's NFC labels are distinguished by their exceptional speed (less than 10 milliseconds for full read), their ability to identify whether a product's packaging is factory sealed or has been opened, and by the fact that each label is encoded during production with a unique identifier or URL, which prevents hacking and spoofing. Thinfilm has also built a significant partner ecosystem, including a partnership with Leo Burnett/ARC, the world's leading digital activation agency and advertising group. Packaging partners such as Jones Packaging, Bedford Industries, Beneli AB, Constantia Flexibles and Spear Europe Ltd. The Company, has developed production lines and reference designs to provide ease of deployment for customers of Thinfilm's NFC products.

Thinfilm plans to continue to increase production capacity, which currently allows seven-figure monthly production of NFC labels and multi-million monthly production of EAS tags, corresponding to an overall 40-million annual unit production capacity, based on NFC label equivalents. This volume is expected to support further market introduction of NFC label products during 2017 in categories such as wines, specialty foods, and field trials in liquors, while also providing capacity for the expected demand from new EAS orders.

The process of migrating transistor manufacturing from sheet-based to roll-based PDPS production has progressed, and on April 24, 2017 Thinfilm therefore relocated its US headquarters. Thinfilm has leased a new facility for 12 years, and has made tenant improvements. The new facility features a significantly larger manufacturing clean room, and enables Thinfilm to support the Company's plans to scale current production and implement a highvolume roll-to-roll manufacturing line for EAS by year-end 2017 and for transistor-based products in 2018 – including NFC OpenSense and NFC SpeedTap labels. Re-installation and qualification of Thinfilm's current sheet-based NFC and EAS manufacturing lines is already underway. A buffer-stock build up plan for frontend die was implemented to allow for uninterrupted backend integration and assembly and sufficient supply to meet customer demand during the relocation of sheet-based production equipment to the new facility, located approximately one mile from the old Zanker Road site. By accelerating the transition to roll-to-roll printed electronics manufacturing through capex investments, Thinfilm expects to be prepared to support up to a billion-unit annual production volume in 2018. In parallel, the Company will look to partner with scaleup qualified, industrial companies to maintain its lowcapex business model, as exemplified by its Thinfilm Memory partnership with Xerox. Thinfilm launched a new temperature sensor label in 2017 and announced the global launch of its CNECT™ cloudbased software portal in Q1 2017. The portal is a multi-tenant platform that integrates with Thinfilm's NFC SpeedTap™ and OpenSense™ tags. The turnkey solution provides consumer brands with a simple and secure way to store, manage and track the tags while addressing key business needs such as consumer engagement and product authentication. Thinfilm will deliver the platform to NFC customers under a license- and use-agreement.

## Thin Film Electronics ASA Group

Condensed consolidated interim financial statements as of 31 March 2017 (Unaudited)

### Consolidated statements of comprehensive income

<i>Amounts in USD 1000</i>	Note	1 Jan - 31 March 2017	1 Jan - 31 March 2016	1 Jan - 31 Dec 2016
Sales revenue		677	150	1 460
Other operating revenue		319	557	1 964
Other income		120	104	421
Total revenue & other income		1 115	811	3 845
Operating costs	10,11	(12 514)	(9 229)	(42 151)
Depreciation and amortization	3, 4, 5	(900)	(552)	(3 176)
Operating profit (loss)		(12 299)	(8 970)	(41 482)
Net financial items		788	(967)	(2 731)
Profit (loss) before income tax		(11 510)	(9 937)	(44 213)
Income tax expense		(1)	(299)	(282)
Profit (loss) for the period		(11 511)	(10 236)	(44 495)
Profit (loss) attributable to owners of the parent		(11 511)	(10 236)	(44 495)
Profit (loss) per share basic and diluted	7	(USD 0.01)	(USD 0.02)	(USD 0.07)
Profit (loss) for the period		(11 511)	(10 236)	(44 495)
Other Comprehensive Income				
Currency translation		(473)	1 073	785
Total comprehensive income for the period, net of tax		(11 984)	(9 163)	(43 710)

## Consolidated statement of financial position

<i>Amounts in USD 1000</i>	Note	31 March, 2017	31 March, 2016	31 December, 2016
<b>ASSETS</b>	8			
<b>Non-current assets</b>				
Property, plant and equipment	3	13 379	9 089	9 155
Financial lease	5	12 339	-	12 607
Intangible assets	4	3 211	2 594	3 142
Total non-current assets		28 929	11 683	24 904
<b>Current assets</b>				
Trade and other receivables	9	8 464	2 571	3 940
Inventory		743	410	1 086
Cash and cash equivalents		52 597	49 122	74 205
Total current assets		61 804	52 103	79 230
<b>TOTAL ASSETS</b>		<b>90 733</b>	<b>63 786</b>	<b>104 134</b>
<b>EQUITY AND LIABILITIES</b>				
<b>Equity</b>				
Ordinary shares	6	13 878	12 069	13 877
Other paid-in equity		219 554	159 578	219 097
Currency translation		(14 449)	(13 688)	(13 976)
Retained earnings		(147 014)	(101 244)	(135 503)
Total equity		71 970	56 714	83 495
<b>Non-current liabilities</b>	8			
Deferred tax liabilities		269	-	269
Long-term financial lease liabilities		12 536	-	12 581
Total non-current liabilities		12 806	-	12 850
<b>Current liabilities</b>				
Trade and other payables		5 958	7 072	7 789
Total current liabilities		5 958	7 072	7 789
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>90 733</b>	<b>63 786</b>	<b>104 134</b>

## Consolidated statements of changes in equity

<i>Amounts in USD 1000</i>	Note	Share capital	Other paid-in equity	Currency translation	Retained earnings	Total
Balance at 1 January 2017		13 877	219 097	(13 976)	(135 503)	83 495
Share issues		1	19			21
Share based compensation			438			438
Comprehensive income				(473)	(11 511)	(11 984)
<b>Balance at 31 March 2017</b>		<b>13 878</b>	<b>219 554</b>	<b>(14 449)</b>	<b>(147 014)</b>	<b>71 970</b>
Balance at 1 January 2016		1 466	119 949	(14 761)	(91 008)	24 645
Share issues		3 411	97 714			101 124
Share based compensation			1 433			1 433
Comprehensive income				785	(44 495)	(43 710)
<b>Balance at 31 December 2016</b>		<b>13 877</b>	<b>219 097</b>	<b>(13 976)</b>	<b>(135 503)</b>	<b>83 495</b>

## Consolidated cash flow statements

<i>Amounts in USD 1000</i>	Note	1 January - 31 March 2017	1 January - 31 March 2016	1 January - 31 December 2016
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>				
Profit (loss) before tax		(11 510)	(9 937)	(44 213)
Share-based payment	6	438	282	1 433
Depreciation and amortization		900	552	3 070
Write down inventory and machinery		-	-	412
Loss on sale of fixed assets	3, 4	-	(1)	1
Taxes paid for the period		-	-	(118)
Changes in working capital and non-cash items		(6 873)	2 851	1 885
Net cash from operating activities		(17 045)	(6 253)	(37 530)
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>				
Purchase of property, plant, and equipment	3	(4 752)	(1 700)	(4 464)
Purchases of intangible assets		-	(63)	(550)
Capitalized development expenses	4	(120)	(12)	(342)
Proceeds from sale of fixed assets		-	1	6
Interest received		6	3	88
Net cash from investing activities		(4 866)	(1 771)	(5 262)
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>				
Proceeds from issuance of shares	6	24	40 950	101 124
Net cash from financing activities		24	40 950	101 124
Currency translation effects on cash and bank deposits		280	255	(67)
Net increase (decrease) in cash and bank deposits		(21 607)	33 182	58 265
Cash and bank deposits at the beginning of the period		74 205	15 940	15 940
<b>CASH AND BANK DEPOSITS AT THE END OF THE PERIOD</b>		<b>52 597</b>	<b>49 122</b>	<b>74 205</b>

The notes on the following pages are an integral part of this condensed interim financial report.

## Notes to the Consolidated Financial Statements

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### Note 1 - Information about the group

Thin Film Electronics ASA (“Thinfilm” or “the Company”) was founded on 22 December 2005. Thin Film Electronics ASA Group (“Thinfilm”) consists of the parent company Thinfilm ASA and the subsidiaries Thin Film Electronics AB (“Thinfilm AB”), Thin Film Electronics Inc. (“Thinfilm Inc.”), Thin Film Electronics KK (“Thinfilm KK”), Thin Film Electronics HK Limited (“Thinfilm HK”), Thin Film Electronics UK Ltd. (“Thinfilm UK”), Thin Film Electronics Co. Ltd. (“Thinfilm China”). The group was formed on 15 February 2006, when Thinfilm ASA purchased the business and assets, including the subsidiary Thinfilm AB, from Thin Film OldCo AS (“OldCo”).

The objectives of the Company shall be the commercialization, research, development and production of technology and products related to printed electronics components and smart systems. These objectives may be carried out in full internally, or in whole or in part externally through collaborative efforts with one or more of the Company’s ecosystem partners.

The Company is a public limited-liability company incorporated and domiciled in Norway. The address of its registered office is Henrik Ibsens gate 100, Oslo, Norway. The Company’s shares were admitted to listing at the Oslo Axess on 30 January 2008 and to the Oslo Børs on 27 February 2015. On 24 March 2015 Thinfilm’s American Depositary Receipts (ADRs) commenced trading in the United States on OTQX International.

### Note 2 - Basis of preparation, accounting policies, and resolutions

This condensed interim financial report for the first quarter of 2017 has been prepared in accordance with IAS 34 interim financial reporting. The condensed consolidated interim financial report should be read in conjunction with the consolidated annual financial statements for 2016. The IFRS accounting policies applied in this condensed consolidated interim financial report are in all materiality consistent with those applied and described in the consolidated annual financial statements for 2016.

The going concern assumption has been applied when preparing this interim financial report.

This consolidated interim financial report has not been subject to audit. The report was resolved by the Board of Directors on 04 May 2017.

## Note 3 - Property, plant, and equipment

<i>Amounts in USD 1000</i>	<b>Tangible assets</b>
<b>Three months ended 31 March 2017</b>	
Net value on 1 January 2017	9 155
Additions	4 752
Disposals	-
Exchange differences	(216)
Depreciation	(311)
Net book value on 31 March 2017	13 379
<b>Year ended 31 December 2016</b>	
Net value on 1 January 2016	7 788
Additions	4 464
Disposals	(292)
Exchange differences	(216)
Depreciation	(2 588)
Net book value on 31 December 2016	9 155

## Note 4 - Intangible Assets

*Amounts in USD 1000***Intangible assets****Three months ended 31 March 2017**

Net value on 1 January 2017	3 142
Additions	120
Exchange differences	-
Impairment	-
Amortization	(52)
Net book value on 31 March 2017	3 211

**Year ended 31 December 2016**

Net value on 1 January 2016	2 602
Additions	892
Exchange differences	(32)
Impairment	(106)
Amortization	(214)
Net book value on 31 December 2016	3 142

## Note 5 - Financial lease

The Company entered into a lease agreement in November 2016 relating to the property building of its new US headquarters in San Jose, CA. The lease in San Jose expires in September 2028. The building element of the lease agreement is classified as a financial leases as the present value of the minimum lease payments amounts to substantially all of the fair value of the leased asset. The land element of the lease has been accounted for separately as an operating lease.

*Amounts in USD 1000***Building****Three months ended 31 March 2017**

Net value on 1 January 2017	12 607
Additions	-
Exchange differences	
Amortization	(269)
Net book value on 31 March 2017	12 339

*Amounts in USD 1000***Finance lease liabilities are payable as follows at three ended 31 March 2017:**

Less than one year	965
Between one and five years	5 030
More than five years	7 667
Sum	13 662

## Note 6 - Shares, warrants and subscription rights

*Number of shares*

Shares at 1 January 2017	816 759 117
Share issue to employees, 24 February	105 000
Shares at 31 March 2017	816 864 117
Shares at 1 January 2016	555 374 857
Private Placement Woodford Investment Management, February 19	120 000 000
Share issue to employees, 25 February	837 500
Share issue to employees, 11 May	3 675 000
Share issue to board members, 11 May	59 260
Share issue to employees, August 15	452 500
Share issue to employees, November 4	1 160 000
Private Placement December Tranche 1, December 1	63 700 000
Private Placement December Tranche 1, December 23	71 500 000
Shares at 31 December 2016	816 759 117

<i>Number of warrants and subscription rights</i>	<b>1 January - 31 March 2017</b>	<b>1 January - 31 March 2016</b>	<b>1 January - 31 December 2016</b>
Warrants and subscription rights opening balance	<b>127 584 826</b>	83 977 326	<b>83 977 326</b>
Grant of incentive subscription rights	<b>995 000</b>	735 000	<b>16 430 000</b>
Terminated, forfeited, and expired subscription rights	<b>(1 440 000)</b>	(1 907 500)	<b>(6 697 500)</b>
Exercise of subscription rights	<b>(105 000)</b>	(837 500)	<b>(6 125 000)</b>
Allotment of warrants	-	40 000 000	<b>40 000 000</b>
Exercise and expiry of warrants	-	-	-
Warrants and subscription rights closing balance	<b>127 034 826</b>	121 967 326	<b>127 584 826</b>

## Note 7 - Profit (loss) per share

	1 January - 31 March 2017	1 January - 31 March 2016	1 January - 31 December 2016
Profit (loss) attributable to shareholders (USD 1000)	(11 511)	(10 236)	(44 495)
Weighted average basic number of shares in issue	816 799 950	575 477 192	659 147 553
Weighted average diluted number of shares	825 485 660	578 889 625	667 346 890
Profit (loss) per share, basic	(USD 0.01)	(USD 0.02)	(USD 0.07)

When the period result is a loss, the loss per share shall not be calculated using the higher diluted number of shares, but rather calculated using the basic number of shares.

The diluted number of shares has been calculated by the treasury stock method. If the adjusted exercise price of subscription rights exceeds the average share price in the period, the subscription rights are not counted as being dilutive.

## Note 8 - Contingent assets and liabilities

As a part of assuming manufacturing assets of Kovio, Inc., in January 2014, Thinfilm issued a USD 600 thousand Letter of Credit to the landlord of the Thinfilm NFC Innovation Center in San Jose, California, USA. Also, as a part of the coming relocation of Thinfilm's US headquarters in the first quarter of 2017 a USD 1,600 thousand Letter of Credit has been issued to the new landlord. The Company has in addition entered into a Tenancy Guarantee with the new landlord. The guarantee is given to secure payment of the lease rent. The guarantee liability amounts to USD 5,000 thousand and shall reduce on an annual basis of USD 500 thousand per year commencing with the second lease year until the liability reaches zero dollars.

## Note 9 - Trade and other receivables

On 31 March 2017, trade and other receivables amounted to USD 8,464 thousand. The components of this balance are accounts receivables USD 1,480 thousand, receivables from grants USD 1,206 thousand, VAT-related receivables USD 170 thousand, and pre-payments to suppliers USD 5,456 thousand while other receivables amounted to USD 152 thousand.

## Note 10 - Related party transactions

In the period 1 January - 31 March 2017, Thinfilm has recorded USD 68 thousand (net of VAT) for legal services provided by law firm Ræder, in which Thinfilm's Chairman is a partner.

In the same period, Thinfilm has recorded USD 59 thousand (net of VAT) for services provided by Robert N. Keith, a shareholder of Thinfilm, relating to a service agreement under which he assists Thinfilm in strategic analysis and in dealing with larger, international, prospective partners.

## Note 11 - Operating costs

<i>Amounts in USD 1000</i>	1 January - 31 March 2017	1 January - 31 March 2016	1 January - 31 December 2016
Payroll	6 151	4 648	20 674
Share based remuneration	377	186	1 180
Services	1 278	945	5 046
Premises, supplies	3 672	2 479	11 970
Sales and marketing	771	866	3 000
Other expenses	266	106	281
<b>Total operating costs</b>	<b>12 514</b>	<b>9 229</b>	<b>42 151</b>