



**Interim Report and
Financial Statements**
First Half 2017

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Highlights

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Several field trials took place during Q2 and demonstrated many important advantages of NFC technology. Overall, unique tap rates via smartphones were 10x higher than those achieved through traditional banner ads or other mobile marketing tools such as barcodes, while consumer engagement following the tap of an NFC tag was dramatically improved. As an example, Coronado Brewing Co.'s Earth Day campaign with the SurfRider Foundation saw a 92% increase in mobile traffic relative to traditional marketing campaigns and up to a 17x higher likelihood that the site visitor would engage the brand by watching a video or join a loyalty program. The fact that taps typically occur at the same time a consumer is considering a purchase or is in the act of consuming the product means that the interaction with the brand is highly intentional and nearly frictionless. A single tap of a smartphone brings consumers to the appropriate brand destination, transforming consumption of the product into a unique digital experience – which is exactly what Millennials are looking for from the products with which they engage.

While the majority of Q2 field trials using NFC focused primarily on brand engagement, with existing customers such as Barbadillo and Northern Lights Spirits placing new and larger tag orders, several also explored and validated new use cases and business models. Among the new use cases were several that relate to supply-chain and product distribution activities. The Korean Red Cross introduced use of Thinfilm's SpeedTap™ labels as part of their 'Windmill of Hope' program, delivering emergency relief supplies and assistance to over 20,000 needy individuals and households during a two-month program. By using NFC, volunteers were able to automatically verify delivery of the assistance packages and identify themselves with a simple tap of an Android smartphone. While the initiative's initial post-launch period centered on customer education, the use of the newly implemented NFC solution more than doubled month-over-month, demonstrating the effectiveness and ease-of-adoption of the technology.

Thinfilm delivered several pilot orders related to secure-transaction applications. These included a new order from Sarine Technologies calling for the inclusion of SpeedTap tags in all of the firm's Sarine Profile™ diamond certificates, which is expected to launch in Q3. There were also new pilot orders with customers in the chemical, transportation, cosmetics, and insurance industries. Shipments of chemical intermediates in pharmaceutical production can now be monitored by tapping NFC tags

embedded in primary packaging, while secure receipt and authentication capabilities were enhanced by inclusion of Thinfilm's NFC labels in insurance policy documents. The Company also positioned itself as a key provider within the Industrial Internet of Things (IIoT) space through technology partnerships with Cratus for its mobile sensor platform and with industrial-reader manufacturers Socket Mobile, Famoco, and SpringCard.

Thinfilm continued to achieve key milestones related to its roll-based manufacturing program during the second quarter. All but one of the 13 process modules for roll-to-roll NFC production have now been ordered, and the first delivery of roll-based manufacturing equipment is expected to arrive at the Junction Avenue facility in mid-August. It is anticipated that roll-based EAS manufacturing will begin in Q4 of this year, while NFC manufacturing is expected to commence by early Q3 2018.

Given the substantial traction Thinfilm has experienced in field trials, and the likelihood that production capacity may gate NFC adoption, the Board agreed to accelerate the CAPEX plan during the strategy assessment undertaken in late Q2. With essentially all process and test equipment now on order, the \$32M capital equipment program is proceeding on-time and on-budget and less than a month delayed. A final operational unit, which is still in vendor selection and centers on laser inscription of read-only memory after transistor manufacture, is not expected to delay production start.

Apple's announcement at the June 2017 Developer Conference that iOS 11 will support app-based use of NFC in iPhones has increased interest among prospective Thinfilm customers. As a result, Thinfilm will be able to add to its range of NFC solutions by introducing Thinfilm-branded conventional tags compatible with latest-generation of Apple iPhones, for both customers using the Thinfilm CNECT™ platform and consumers using the Thinfilm iPhone application. Thinfilm has already developed a beta version of an Apple-submitted NFC Tag Scanner app. By Q4 2017, any third-party will also have the ability to enable NFC functionality by using Thinfilm's iOS SDK and the CNECT platform.



Thinfilm Reports Record Revenues and Product Shipments during Second Quarter; Companies on CNECT™ Platform Nearly Triple

Thinfilm generated \$1.7M in total revenue and \$0.6M in other income during the April-June time period, the highest quarterly total ever reported by the Company. There was also a record number of product shipments during Q2 covering NFC, EAS, and temperature sensor smart labels. Software growth was very strong, with the number of companies on the CNECT platform increasing from 68 at the beginning of April to 200 at the end of June – an increase of 194% quarter-over-quarter.

Barbadillo Uses Thinfilm's Technology to Launch Largest Global Deployment of NFC in the Wine & Spirits Industry

Thinfilm announced that leading Spanish winemaker, Barbadillo, launched a consumer-focused marketing campaign using Thinfilm's SpeedTap tags and CNECT brand analytics SaaS platform. This national campaign includes 126,000 NFC-enabled 'smart' bottles of Castillo de San Diego and is believed to be the largest global deployment of NFC to date within the wine and spirits industry. The connected bottles are being sold through 15 major supermarket chains and superstores, including El Corte Inglés, Carrefour, Hipercor, Alcampo, and Eroski. Barbadillo's campaign enables the winery to engage directly with consumers, deliver a compelling digital experience, and collect valuable consumer data. Through a customized NFC-enabled neck collar, consumers are instructed to tap bottles of Castillo de San Diego with their smartphone for a chance to win 12 distinct €1,000 prizes. The campaign, which also includes television, online, and outdoor advertising support, was launched on July 17 and will run through August 31. Several winners have already been identified.



Oskar Blues Brewery Leverages Thinfilm's NFC Solution to Enable One-to-One Mobile Connections with On-Premise Beer Drinkers

Thinfilm announced a partnership with Oskar Blues Brewery. Through the collaboration, Oskar Blues is integrating Thinfilm's technology into beer coasters distributed nationwide across the US, enabling a direct mobile connection with consumers through the simple tap of a smartphone. Celebrating 15 years of the original craft beer-in-a-can, Oskar Blues Brewery is launching new 16oz. Dale's Pale Ale Draft Cans sold exclusively through bars and restaurants. These cans are enhanced by artwork from avant-garde illustrator, McBess, embodying a shared enthusiasm for the outdoors, music, and craft beer. By integrating Thinfilm technology into beer coasters, Oskar Blues is able to deliver a unique digital experience to bar patrons. Tapping a phone to the coaster takes users



to a web page that tells the Oskar Blues brand story and displays the artwork featured on the 16oz. Draft Can.

Thinfilm Readies for Industrial IoT Market Through Key Partnerships with Socket Mobile, Famoco, SpringCard

Thinfilm announced technology partnerships with three leading providers of NFC-reader hardware – Socket Mobile, Famoco, and SpringCard. Each partner is collaborating with Thinfilm to bring Thinfilm-validated, enterprise-ready NFC readers to the market and help position NFC as an enabling technology for a range of applications within the Industrial Internet of Things (IIoT) space. Together, these partnerships allow enterprises to easily integrate Thinfilm NFC technology with installed desktop, embedded, and mobile infrastructure, including iOS (iPhone, iPad) and Android devices.

Case Study: Coronado Brewing Co. Uses Thinfilm's Technology to Boost Website Conversions



Thinfilm, in conjunction with Coronado Brewing Co., published a case study related to the partners' NFC coaster initiative announced in late March. The 'smart coasters' – which featured Thinfilm SpeedTap tags – were part of a product launch for a new beer, CoastWise Session IPA. Coasters were distributed at Coronado locations exclusively and directed consumers, through the tap of a smartphone, to a customized landing page describing the new beer. Coronado saw a significant increase in consumer engagement, particularly compared to click-through rates of 0.2% for its existing advertising. The coasters also produced a 13 – 17.5x increase in website conversions, as measured by visits to the website resulting from consumer-initiated taps. Overall, Thinfilm has driven an estimated 92% lift in mobile traffic to the CoastWise landing page.

Caliva Partners with Thinfilm to Enable One-to-One Mobile Connections with Wellness Patients

Thinfilm announced a partnership with one of California's leading medical cannabis companies, Caliva. Through the collaboration, Caliva is integrating Thinfilm's technology into branded products distributed throughout California, enabling a direct mobile connection with consumers through the simple tap of a smartphone. Ranked the #1 dispensary in the nation by *Business Insider*, Caliva opened in July of 2015 with a focus on establishing a regulated, safe and consistent source of medical cannabis for wellness patients. Caliva is now leveraging Thinfilm's NFC SpeedTap™ technology to provide patients with enhanced information and transparency with regard to strain, cultivation practices, and potency of each product. This unique approach will help create a more trusted and informed purchasing process for patients. In turn, the technology will enable Caliva to establish personalized, one-to-one relationships with their consumers, communicate brand values, and increase long-term loyalty.



Amplified Ale Works Leverages Thinfilm's NFC Solutions to Turn On-Premise Smart Coasters into an Off-Premise Sales Channel

Thinfilm announced that Amplified Ale Works will integrate Thinfilm's technology into beer coasters distributed on premise, enabling a direct mobile connection with consumers through the simple tap of a smartphone. Amplified's presence on thebeerconnect.com, an online craft beer marketplace and delivery service, enables the brewery to expand distribution of its popular craft beer varieties directly to a beer drinker's home. Amplified Ale Works is located in a popular San Diego beach neighborhood with significant foot traffic, but the brewpub wanted to expand consumer contact beyond on-premise relationships. Through Thinfilm's NFC technology, patrons can now tap Amplified's 'smart coasters' and immediately be taken to a landing page from which they can order Amplified beer online for home delivery.

Cratus Leverages Thinfilm's NFC Technology to Deliver IoT-Focused Supply Chain Solution

Thinfilm announced a partnership with Cratus Technology, Inc., through which Cratus will integrate Thinfilm's technology into mobile sensor platforms. The collaboration will enable location-sensing and tamper-evidence monitoring of high-value goods through the tap of a smartphone or commercial reader. Cratus' newly launched mobile sensor-platform for high-value shipments was designed to record ambient environment data including temperature, pressure, shock, orientation, and humidity. Serving as a silent sentinel on a package's journey through the supply chain, the sensor platform is designed to capture adverse events and record them for dispute resolution and general supply chain monitoring. In addition to GPS tracking and multiple methods of communication options including Bluetooth, cellular, WiFi and LPWAN, Cratus is now adding Thinfilm's NFC OpenSense™ technology to enhance the security, flexibility and user experience in its offering.

Thinfilm Introduces IoT-CNECT™ Box to Provide Consumer Brands with Quick-Start Solution for NFC Mobile Marketing

Thinfilm announced the launch of its IoT-CNECT Box, an affordable, turnkey NFC mobile marketing solution "in a box." It provides brands and digital agencies with a quick and easy way to create, implement, and test 'intelligent packaging' programs that facilitate direct brand-to-consumer connections through the tap of a smartphone. Contents of the IoT-CNECT Box include Thinfilm's SpeedTap and OpenSense NFC tags in adhesive-label format, smart ElastiTag® hangtags from Bedford Industries, a quick-start guide, an overview of innovative use cases, and detailed information on Thinfilm's powerful cloud-based software platform, CNECT. Customers also receive a complimentary copy of *NFC Mobile Marketing for Dummies*, a useful educational and planning guide recently released by Thinfilm in conjunction with publisher John Wiley & Sons, Inc. Customers that purchase the IoT-CNECT Box gain instant access to Thinfilm's CNECT partner portal to enable remote tag management, custom content delivery, consumer activity tracking, and detailed analytics and reporting.



Thinfilm's New High-Volume Manufacturing Facility in Silicon Valley Now Operational

In mid-June Thinfilm announced that the fab at its new Junction Avenue facility in Silicon Valley was operational and that the first product lots had shipped. The milestone coincided with Thinfilm's grand opening event at the former Qualcomm-owned site, which was attended by more than 200 guests and included the Mayor of San Jose, Thinfilm's Board, key customers, ecosystem partners, investors, industry analysts, local media, and other distinguished guests. In October of 2016, Thinfilm announced it had leased the property at 2581 Junction Avenue for 12 years. The Company transitioned its sheet-based manufacturing operation from its former Zanker Road facility to the new site, and employees officially moved in on April 24. As of mid-July, following significant ramp-up of the new fab, Thinfilm has completed processing and shipped NFC and EAS lots fully manufactured at the Junction Avenue site.

Shows and Events

Craft Brewers Conference **April 10-13, 2017,** **Washington, DC**

More than 13,300 people attended the 2017 Craft Brewers Conference & BrewExpo America.



The conference is organized by the Brewers Association, a not-for-profit trade association whose members make more than 99 percent of the beer brewed in the U.S. Thinfilm exhibited at this event and demonstrated its 'smart coasters' and mobile-marketing solutions for craft beer.

Luxe Pack Shanghai **April 12-13, 2017, Shanghai, China**

This is a premier show for creative packaging, attended by global packaging manufacturers and designers from the cosmetics, jewelry, wine & spirits, fashion, and tobacco industries. Thinfilm showcased SpeedTap™ and OpenSense™ technology in the exhibition hall.

Cosmetic Ingredients & Technology Exhibition 2017 **April 17-19, 2017, Seoul, South Korea**

Thinfilm demonstrated its mobile-marketing solutions at this exhibition targeting cosmetics. The show serves as a gateway to initiate products and technology in the Asia-Pacific region as well as Korea.

Seoul International Wines & Spirits Expo **April 27-29, 2017, Seoul, South Korea**

More than 300 companies from 30 nations exhibited at this event focused on wine, beer, spirits and traditional Korean alcoholic beverages. Thinfilm highlighted consumer engagement and anti-counterfeiting solutions at this event.

International Beer Strategies Conference 2017 **May 8-10, 2017, Barcelona, Spain**

This three-day event explored how brewers can develop a holistic growth strategy in a competitive beer landscape. Thinfilm participated as a roundtable sponsor. Davor Sutija presented Thinfilm's NFC solutions during roundtable discussions and, in the exhibition area, Thinfilm demonstrated its NFC solutions, smart coasters, hang-tags, and the CNECT™ Software Portal.

Abbott Packaging Innovation Speed Date **May 9, 2017, Allschwil, Switzerland**

The Abbott Packaging Innovation Speed Date event showcased some of the current, emerging and future packaging innovations that will help reshape the pharmaceuticals industry. Thinfilm was invited to present several ten-minute demonstrations to global pharmaceutical leaders.

MMA Mobile Marketing Leadership Forum **May 9-10, 2017, NYC, NY**

The MMA Leadership Forum is developed by marketers for marketers and explores the most critical mobile topics in-depth. Thinfilm exhibited and Bill Van Orsdel, Director of Business Development, North America, spoke at a breakout session entitled: "NFC Mobile Marketing: Give Your Brand a Voice on the Retail Shelf and Beyond."

Luxe Pack New York **May 10-11, 2017, NYC, NY**

This is a premier tradeshow in the U.S. dedicated to creative packaging solutions for the beauty, fragrance, wine & spirits, and fine foods industries. At the exhibition, Thinfilm demonstrated the consumer engagement and anti-counterfeiting use cases of OpenSense and SpeedTap technology, as well as the CNECT Software Portal, for luxury products. Thinfilm's Erwan Le Roy, EVP Business Development & GM NFC Solutions and Smart Sensor Products, participated in a panel discussion entitled: "Harnessing Active and Intelligent Technologies to Add Value to Flexible and Rigid Packaging."



Packaged! **June 19-20, 2017, Amsterdam, The Netherlands**

The 6th Global Summit featured the newest material innovations, disruptive technologies, and brand strategies shaping the packaging industry. Thinfilm exhibited and Thinfilm's Eric Vanroyen, Director of Business Development, EMEA, delivered a presentation at the Solution Spotlight for Creative Branding and Packaging Design.

MAXSUMMIT 2017 **June 23, 2017, Seoul, South Korea**

MAXSUMMIT 2017 is the largest mobile ad-tech conference in Korea, where brands, agencies, tech platforms and publishers gather. The focus of the conference was how ad technology is changing the advertising industry. Thinfilm demonstrated how its NFC solutions and CNECT Software Portal can be used as a mobile-marketing tool.



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 30 June 2017

Thinfilm's revenues established a new high in Q2 as a result of the increased momentum in sales of its products as well as revenues from achieved milestones in relation to joint development agreements. EAS (electronic article surveillance) shipments in the quarter increased to 8.5 million tags, resulting in a total shipment of more than 13.5 million tags in the first six months of 2017. The company also experienced growth among new and existing NFC customers and partners, more than doubling shipments, as well as continued revenue contribution from its partnership with a global Fortune 500 pharmaceutical company. Operating costs rose in the period as a result of increased manning, both in field sales and engineering/manufacturing related to the roll-based manufacturing program. One-time costs associated with the move to the new facility also played a role in certain operating expense categories.

Profit and Loss

Thinfilm's revenue and other income in the first six months of 2017 amounted to USD 3,415 thousand, 71% higher than the same period in 2016 (H1 2016: USD 1,997 thousand). Excluding the other income recognized in the period, total revenue was USD 2,719 thousand, an increase of USD 932 thousand, or 52%, compared to the preceding year (H1 2016: USD 1,787 thousand). Sales revenue amounted to USD 2,071 thousand in the first six months of 2017, compared to USD 747 thousand in the same period in 2016, and 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 more than 13.5 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 648 thousand in the period (H1 2016: USD 1,040 thousand). The 38% decrease is largely explained by funded projects being finalized. Other income amounted to USD 696 thousand in the first six months of 2017 (H1 2016: 210 thousand). The increase in other income is primarily because of an accounting gain on disposal of fixed assets that were acquired when the Company secured the Junction Avenue facility, whereas the sublease income has been stable year over year.

Operating costs (excluding depreciation and amortization charges) amounted to USD 28,657 thousand in the first six months of 2017, including the cost of share-based compensation of USD 906 thousand. The corresponding figure for H1 2016 was USD 19,787 thousand and USD 599 thousand respectively. The increase in operating costs in the first half of 2017, compared to the same period in 2016, was USD 8,870 thousand, primarily attributable to:

1) USD 3,972 thousand higher payroll costs, mainly related to an overall increase in the number of global FTEs (full-time equivalents) to 162 as of 30 June 2017, compared to 116 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 2,146 thousand higher costs for premises and supplies, as production activities increased significantly from the end of 2015, particularly at the site 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 the first six months of 2017 USD 8,055 thousand were spent developing roll-to-roll printing processes, printed batteries and printed displays. The corresponding amount for 2016 was USD 7,916 thousand.

Investments in fixed and intangible assets amounted to USD 20,760 thousand in the first six months of 2017. This includes prepayments amounting to USD 11,282 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 30 June 2017. Investments in fixed and intangible assets amounted to USD 3,086 thousand in the same period in 2016. The investments in H1 2017 are mostly related to equipment for the new roll-based production line at the San Jose site. The investments in H1 2016 were mainly related to equipment and tools for the EAS and PDPS (printed-dopant polysilicon) line as well as improvements to the San Jose site. Depreciation, amortization and impairment charges in the first six months of 2017 amounted to USD 1,730 thousand (H1 2016: USD 1,236 thousand). Net financial items in the six first months of 2017 amounted to a gain of USD 1,127 thousand (H1 2016: USD 1,421 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 half of 2017 was a loss of USD 25,879 thousand, corresponding to a basic loss per share of USD 0.03. In H1 2016, the loss amounted to USD 20,747 thousand, corresponding to a basic loss per share of USD 0.03.

Cash Flow

The group's cash balance decreased by USD 46,026 thousand in the first six months of 2017 (compared to an increase of USD 20,869 thousand in H1 2016). The decrease in cash balance is explained by three principal elements: 1) an outflow of USD 28,273 thousand from operating activities, 2) a USD 20,228 thousand outflow from investing activities and 3) a USD 470 thousand inflow from financing activities. The USD 28,273 thousand outflow from operating activities is primarily explained by an operating loss excluding depreciation, amortization and impairment charges of USD 25,243. The cash balance on 30 June 2017 amounted to USD 28,179 thousand, while cash net of receivables and payables amounted to USD 38,503 thousand. The cash balance on 30 June 2016 amounted to USD 36,809 thousand, while cash net of receivables and payables amounted to USD 34,845 thousand.

Balance Sheet

The Company's balance sheet is comprised of fixed & intangible assets, financial lease, cash, receivables, inventory, deferred tax liabilities, long-term financial lease liabilities, payables & accruals, and equity. Fixed assets on 30 June 2017 amounted to USD 17,392 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 12,070 thousand and relates to the new US headquarter. In addition, USD 3,258 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

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. 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 during May and June that the commercial traction in NFC, demonstrated by nearly 20 in-field and contractually agreed field trials, coupled with an announcement by an operating system vendor in supporting additional use cases, makes it desirable to accelerate the Company's investment in roll-based manufacturing and its hiring of engineering staff to complete procurement and installation of said equipment. This means that the Company will require additional funding in H2 2017 to complete its accelerated capital investment plan and to get Thinfilm to a cash break even point. Management is exploring several options in order to secure the additional capital required.

On 30 June 2017, the equity amounted to USD 59,361 thousand, representing 77% of the gross balance sheet and 427% of the share capital.



Outlook

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 the 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 the NFC Forum, including Samsung and Apple, where Thinfilm continues to chair the Retail Working Group.

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 digital activation agencies such as Leo Burnett/ARC, and packaging partners such as Jones Packaging, Bedford Industries, Beneli AB, Constantia Flexibles and Spear Europe Ltd.

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 consumer categories such as wines, specialty foods, and liquors, while also providing capacity for expected demand in industrial markets as well as from new EAS orders.

Thinfilm has leased a new Junction Avenue manufacturing 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 high volume 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 now near complete and according to schedule. 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 scale-up qualified, industrial companies to maintain its low CAPEX 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™ cloud-based software portal in Q1 2017. Thinfilm CNECT portal is a multi-tenant platform that integrates with Thinfilm's NFC SpeedTap and OpenSense tags, and provides users the ability to manage tags and run precisely targeted marketing campaigns. Thinfilm has 260 companies registered on the platform as of end-July 2017. These customers receive access to CNECT through a license-and-use agreement.

Thin Film Electronics ASA Group

Condensed consolidated interim financial statements as of 30 June 2017 (Unaudited)

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Amounts in USD 1000	Note	1 April - 30 June 2017	1 April - 30 June 2016	1 January - 30 June 2017	1 January - 30 June 2016	1 January - 31 December 2016
Sales revenue		1 395	597	2 071	747	1 460
Other operating revenue		329	483	648	1 040	1 964
Other income		576	105	696	210	421
Total revenue & other income		2 300	1 186	3 415	1 997	3 845
Operating costs	10.11	(15 593)	(10 558)	(28 657)	(19 787)	(42 151)
Depreciation and amortization	3.4.5	(830)	(684)	(1 730)	(1 236)	(3 176)
Operating profit (loss)		(14 124)	(10 057)	(26 973)	(19 026)	(41 482)
Net financial items		339	(454)	1 127	(1 421)	(2 731)
Profit (loss) before income tax		(13 785)	(10 510)	(25 846)	(20 447)	(44 213)
Income tax expense		(32)	(1)	(33)	(300)	(282)
Profit (loss) for the period		(13 817)	(10 511)	(25 879)	(20 747)	(44 495)
Profit (loss) attributable to owners of the parent		(13 817)	(10 511)	(25 879)	(20 747)	(44 495)
Profit (loss) per share basic and diluted	6	(USD 0.02)	(USD 0.02)	(USD 0.03)	(USD 0.03)	(USD 0.07)
Profit (loss) for the period		(13 817)	(10 511)	(25 879)	(20 747)	(44 495)
Other Comprehensive Income						
Currency translation		215	94	293	1 167	785
Total comprehensive income for the period, net of tax		(13 602)	(10 417)	(25 586)	(19 580)	(43 710)

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Amounts in USD 1000	Note	30 June 2017	30 June 2016	31 December 2016
ASSETS	8			
Non-current assets				
Property plant and equipment	3	17 392	9 003	9 155
Financial lease	5	12 070	-	12 607
Intangible assets	4	3 258	2 907	3 142
Total non-current assets		32 721	11 910	24 904
Current assets				
Trade and other receivables	9	15 743	2 776	3 940
Inventory		800	421	1 086
Cash and cash equivalents		28 179	36 809	74 205
Total current assets		44 722	40 006	79 230
TOTAL ASSETS		77 443	51 916	104 134
EQUITY AND LIABILITIES				
Equity				
Ordinary shares	6	13 905	12 119	13 877
Other paid-in equity		220 522	160 560	219 097
Currency translation		(13 683)	(13 748)	(13 976)
Retained earnings		(161 382)	(111 755)	(135 503)
Total equity		59 361	47 176	83 495
Non-current liabilities	8			
Deferred tax liabilities		269	-	269
Long-term financial lease liabilities		12 393	-	12 581
Total non-current liabilities		12 662	-	12 850
Current liabilities				
Trade and other payables		5 419	4 740	7 789
Total current liabilities		5 419	4 740	7 789
TOTAL EQUITY AND LIABILITIES		77 443	51 916	104 134



CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Amounts in USD 1000	Note	Share capital	Other paid-in equity	Currency translation	Retained earnings (uncovered loss)	Total
Balance at 1 January 2017		13 877	219 097	(13 976)	(135 503)	83 495
Share issues		28	442			470
Share based compensation			983			983
Comprehensive income				293	(25 879)	(25 586)
Balance at 30 June 2017		13 905	220 522	(13 683)	(161 382)	59 361
Balance at 1 January 2016		10 466	119 949	(14 761)	(91 008)	24 645
Share issues		1 653	39 892			41 546
Share based compensation			718			718
Comprehensive income				1 013	(20 747)	(19 734)
Balance at 30 June 2016		12 119	160 560	(13 748)	(111 755)	47 176
Balance at 1 January 2016		10 466	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)
Balance at 31 December 2016		13 877	219 097	(13 976)	(135 503)	83 495

CONSOLIDATED CASH FLOW STATEMENTS

Amounts in USD 1000	Note	1 April - 30 June 2017	1 April - 30 June 2016	1 January - 30 June 2017	1 January - 30 June 2016	1 January - 31 December 2016
CASH FLOW FROM OPERATING ACTIVITIES						
Profit (loss) before tax		(13 785)	(10 510)	(25 846)	(20 447)	(44 213)
Share-based payment	6	545	436	983	718	1 433
Depreciation and amortization		830	684	1 730	1 236	3 070
Write down inventory and machinery		-	278	-	278	412
Gain on sale of fixed assets	3	(439)	-	(439)	(1)	1
Taxes paid for the period		-	(110)	-	(110)	(118)
Changes in working capital and other changes		(2 541)	(2 295)	(4 702)	556	1 885
Net cash from operating activities		(15 390)	(11 517)	(28 273)	(17 770)	(37 530)
CASH FLOW FROM INVESTING ACTIVITIES						
Purchase of property, plant, and equipment	3	(4 506)	(945)	(9 258)	(2 645)	(4 464)
Prepayments relating to purchase of property, plant and equipment		(7 120)	-	(11 282)	-	-
Purchases of intangible assets		-	(363)	-	(425)	(550)
Capitalized development expenses	4	(100)	(4)	(220)	(16)	(342)
Proceeds from sale of fixed assets		524	-	524	1	6
Interest received		2	-	8	3	88
Net cash from investing activities		(11 200)	(1 311)	(20 228)	(3 082)	(5 262)
CASH FLOW FROM FINANCING ACTIVITIES						
Proceeds from issuance of shares	6	446	596	470	41 546	101 124
Net cash from financing activities		446	596	470	41 546	101 124
Currency translation effects on cash and bank deposits		1 726	(80)	2 006	175	(67)
Net increase (decrease) in cash and bank deposits		(24 418)	(12 312)	(46 026)	20 869	58 265
Cash and bank deposits at the beginning of the period		52 597	49 122	74 205	15 940	15 940
CASH AND BANK DEPOSITS AT THE END OF THE PERIOD		28 179	36 809	28 179	36 809	74 205

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



Notes to the Consolidated Financial Statements

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"), ThinFilm 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 Depository 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 half 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 10 August 2017.

NOTE 3 - PROPERTY, PLANT, AND EQUIPMENT

Amounts in USD 1000	Tangible assets
Six months ended 30 June 2017	
Net value on 1 January 2017	9 155
Additions	9 258
Disposals	(125)
Exchange differences	(75)
Depreciation	(821)
Net book value on 30 June 2017	17 392
Six months ended 30 June 2016	
Net value on 1 January 2016	7 788
Additions	2 645
Disposals	(277)
Exchange differences	(20)
Depreciation	(1 132)
Net book value on 30 June 2016	9 003
Year ended 31 December 2016	
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

Amounts in USD 1000	Intangible assets
Six months ended 30 June 2017	
Net value on 1 January 2017	3 142
Additions	220
Exchange differences	-
Impairment	-
Amortization	(104)
Net book value on 30 June 2017	3 258
Six months ended 30 June 2016	
Net value on 1 January 2016	2 602
Additions	441
Exchange differences	(33)
Impairment	-
Amortization	(103)
Net book value on 30 June 2016	2 907
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
Six months ended 30 June 2017	
Net value on 1 January 2017	12 607
Amortization	(537)
Net book value on 30 June 2017	12 070

Amounts in USD 1000

Finance liabilities are payable as follows at the six months ended 30 June 2017:

Less than one year	1 418
Between one and five years	5 244
More than five years	7 108
Sum	13 770

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
Share issue to employees, 5 May	2 057 500
Shares at 30 June 2017	818 921 617

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

Number of warrants and subscription rights

	1 January - 30 June 2017	1 January - 30 June 2016	1 January - 31 December 2016
Warrants and subscription rights opening balance	127 584 826	83 977 326	83 977 326
Grant of incentive subscription rights	2 475 000	1 845 000	16 430 000
Terminated, forfeited and expired subscription rights	(2 160 000)	(2 355 000)	(6 697 500)
Exercise of subscription rights	(2 162 500)	(4 512 500)	(6 125 000)
Allotment of warrants	-	40 000 000	40 000 000
Exercise and expiry of warrants	-	-	-
Warrants and subscription rights closing balance	125 737 326	118 954 826	127 584 826



NOTE 7 - PROFIT (LOSS) PER SHARE

	1 January - 30 June 2017	1 January - 30 June 2016	1 January - 31 December 2016
Profit (loss) attributable to shareholders (USD 1000)	(25 879)	(20 747)	(44 495)
Weighted average basic number of shares in issue	817 468 786	626 870 670	659 147 553
Weighted average diluted number of shares	825 861 166	630 362 138	667 346 890
Profit (loss) per share, basic and diluted	(USD 0.03)	(USD 0.03)	(USD 0.07)

When the period result is a loss, the loss per diluted number of shares shall not be reduced by the higher diluted number of shares, but the diluted result per share equals the result per 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 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 30 June 2017, trade and other receivables amounted to USD 15,743 thousand. The components of this balance are accounts receivable USD 1,946 thousand, receivables from grants USD 1,253 thousand, VAT-related receivables USD 213 thousand, and pre-payments to suppliers USD 12,050 thousand which primary relates to investments in equipment and machinery at the site in San Jose. Other receivables amounted to USD 281 thousand.

NOTE 10 - RELATED PARTY TRANSACTIONS

In the period 1 January - 30 June 2017, Thinfilm has recorded USD 140 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 117 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

Amounts in USD 1000	1 January - 30 June 2017	1 January - 30 June 2016	1 January - 31 December 2016
Payroll	13 766	9 794	20 674
Share based remuneration	906	599	1 180
Services	2 808	2 197	5 046
Premises, supplies	7 132	4 986	11 970
Sales and marketing	1 857	1 592	3 000
Other expenses	2 188	619	281
Total operating costs	28 657	19 786	42 151

NOTE 12 - PRIOR PERIOD ERROR

In connection with the preparation of this Financial Report, an elimination error relating to the first quarter of 2017 was discovered. As a consequence, Operating costs was in the first quarter of 2017 understated by USD 550 thousand. This cost belonged to the category "Other expenses" in Note 11. The error has retrospectively been accounted for. The correction had no impact on net equity.

Consequently, the following adjustments in the first quarter of 2017 have been made:

Amounts in USD 1000	Q1
Operating costs (increased)	-550
Comprehensive income in Equity (decreased)	550
Uncovered loss in Equity (increased)	-550

NOTE 13 - EVENTS OCCURRING AFTER THE BALANCE SHEET DATE

In the Board meeting on 10 August 2017, the Board resolved to grant a total of 780,000 Employee Subscription Rights to new employees of the Company, each with an exercise price of NOK 3.79.

Responsibility Statement

We confirm that, to the best of our knowledge, the enclosed condensed set of financial statements for the first half year of 2017, which has been prepared in accordance with IAS 34 Interim Financial Statements, gives a true and fair view of the Company's consolidated assets, liabilities, financial position and results of operations, and that the interim management report includes a fair review of the information required under the Norwegian Securities Trading Act section 5-6 fourth paragraph.

The Board of Directors of Thin Film Electronics ASA, Linköping, Sweden 10 August 2017.

Morten Opstad
Chairman

Laura Oliphant
Board Member

Preeti Mardia
Board Member

Tor Mesøy
Board Member

Rolf Åberg
Board Member

Davor Sutija
CEO

