



# Big deals are coming

Crunchfish has signed some important agreements this quarter. The gesture contract with OPPO – one of the largest mobile device manufacturers in the world – is our largest contract to date. Commercial discussions with HDFC Bank have begun as the Digital Cash integration is ready and the pilot is about to begin. Deals with additional banks and payment services that require offline payments are expected to follow. The positive effects a 500 kUSD order has on our financials are notable. This indicates the scalability of our business as we anticipate much larger deals ahead.

#### **Gesture Interaction**

The Gesture side of Crunchfish business continues to bring in deals with leading electronics manufacturers. Whereas the order from Oppo had a sizeable upfront payment, the AR/ VR deal with Ximmerse was instead structured with royalty payments when the products are rolled out next year. Just like the deal with Lenovo that was signed in Q2.

We experience traction for our XR Skeleton Stereo solution in the AR/VR market, enabling two-hands interaction and high precision hand tracking with dual camera sensors. Two-hand interaction has also been added to our other XR Skeleton product, designed for a single wide-angle camera solutions, which broadens the market for us even further.

# **Digital Cash**

Teaming up with India's leading bank to showcase Digital Cash for RBI, the Reserve Bank of India, is a great milestone. The project, if successful, will provide the basis for RBI's guidance and regulatory support in providing offline retail payments based on Crunchfish Digital Cash platform to the payment ecosystem of India. Our software is now integrated, and we are very much looking forward to the pilot to begin in December with real money transactions between customers of HDFC Bank and another Indian bank. There is great commercial potential in the project. Initially we will sign deals with the two banks that are part of the project. Additional revenue will come from deals with other banks and e-wallets that also require offline payments.

#### Pay offline to anyone, anywhere

Crunchfish Digital Cash is all about offline payments. Payers should not have to worry whether they are online or not.

Payments should work regardless. By exploiting telecom connectivity, in contrast to data connectivity over internet, Crunchfish recently announced a new Digital Cash 1.3 version that enables payments in many more situations.

Interoperability with the domestic payment rail, such as UPI in India, makes it possible to pay offline without changing the behaviour or requiring additional onboarding of payment receivers. Offline payments in rural areas and at mom-and-pop stores where merchants typically receive payment confirmations using a soundbox or a feature phone becomes possible. Remote payments are also supported, including paying bills with static QR-codes offline. Compared to proximity payments in full offline mode, the extension allows larger payment amounts, making Crunchfish Digital Cash even more useful.



#### **Financials**

Crunchfish achieved a positive EBITDA in Q3. This was mainly due to the 500 kUSD gesture order received from Oppo. As we expect larger deals ahead, it indicates the potential to become a very profitable business in the future.

In the short-term, we will add cash in December when the publicly traded warrants TO9 will convert to shares. The conversion price will be set at a 30% discount on the average share price during the last two weeks in November, and the exercise period will run from December 5 to December 19.



# Crunchfish group

15/7 202

New number of shares and votes in Crunchfish AB (publ).

The number of shares and votes in Crunchfish has increased by 511,000 shares as a result of the exercise of warrants within the framework of the Company's incentive program 2018/2022. This information was only available in Swedish.

# **Digital Cash**

11/11 2022

Pay offline to anyone, anywhere with new Crunchfish Digital Cash 1.3 version. This new version extends the use of Crunchfish Digital Cash even more as it becomes possible to pay anywhere using telecom connectivity, and to anyone on a domestic payment scheme.

24/10 2022

Crunchfish reach important milestone in the project with Reserve Bank of India. Crunchfish's project for Offline Retail Payments together with HDFC Bank and one additional Indian bank by completing the integration of Crunchfish Digital Cash SDK into both Payer and Merchant apps.

22/9 2022

New Crunchfish Digital Cash release targeting the HDFC Bank and RBI project. The new version targets feature and performance requirements in the project with HDFC Bank and Reserve Bank of India (RBI). This version will be used to demonstrate and pilot offline retail payments.

21/9 2022

Crunchfish announce Digital Cash proximity interaction patent. Crunchfish Digital Cash AB have received a Notice of Allowance from the Swedish Patent and Registration Office (PRV) regarding proximity interaction in settings where multiple service terminals may be present.

5/9 2022

Crunchfish and HDFC Bank in project with Reserve Bank of India. Crunchfish in partnership with HDFC Bank have made a joint application to access Reserve Bank of India (RBI) Regulatory Sandbox to demonstrate and pilot offline retail payments.

24/8 2022

Crunchfish Digital Cash integrated with Sirius' Payment Ecosystem Solution. Crunchfish and Sirius joined forces to offer banks and payment service providers an off-the-shelf integration of Crunchfish Digital Cash into Sirius' Payment Ecosystem Solution running on their Multiverse platform, enabling fast and easy deployment of both online and offline payments.

# **Gesture Interaction**

14/11 2022

Crunchfish XR Skeleton 2.0 is ready for release. This is the second generation of the flagship product – XR Skeleton – targeting devices with a single camera.

2/11 202

Crunchfish sign gesture agreement with OPPO, one of the largest mobile phone manufacturers in the world, to provide their consumer devices with Crunchfish's gesture control technology.

27/10 2022

Crunchfish release upgraded XR Skeleton Stereo with a new detector software module.

13/9 2022

Crunchfish release XR Skeleton Stereo 1.0. As one of the first companies in the world, Crunchfish is very proud to deliver a product release of XR Skeleton Stereo – the company's latest hand tracking product with leading performance and accuracy.

17/8 2022

Crunchfish sign agreement with Ximmerse for XR Skeleton Stereo to provide Ximmerse's next generation AR-glasses with Crunchfish's latest hand tracking technologies.

# Digital Cash





# Augmenting Payments

Digital payment services are great when they work, but there are quite a lot of reasons why payment services fail sometimes. This is what Crunchfish address with Digital Cash. The two main problems are a lack of internet connectivity and service disruption in the backend. Crunchfish Digital Cash is helping payment services even in such situations.

A common problem is that the payer is offline, not able to access the payment service over the internet. For real-time payment services this is critical, whereas for card services it is not. For card services, it is the merchant that is supposed to be online to be able to verify that the payer has enough money to complete the transaction. Settlement, when money moves between accounts, is instant in real-time payment systems, but happens with a delay with card payments.

Sometimes the problem is caused by a temporary service disruption in the backend. It could be an outage at the payer's remitting bank, the electronic identification service, the payment switch, or the payee's beneficiary bank. It is less sensitive if the beneficiary bank has an outage as

the payment service can then notify the payee that the transaction has been cleared and just awaiting settlement. To address these two types of problems, lack of internet connectivity and service disruption in the backend, Crunchfish offers two Digital Cash solutions. The original patented Digital Cash offline solves both issues, but is mainly focused on addressing lack of internet connectivity. The patent-pending Digital Cash online, on the other hand, addresses service disruption in the backend primarily, although it may mitigate lack of internet connectivity by using the telecom network. Both Digital Cash solutions augment payments by breaking up the payment process in three distinct steps; Reserve, Pay and Settle.



| Digital Cash offline  | Digital Cash online                         |
|---|---|
| <ol> <li>Reserve an amount in the backend,<br/>for offline use in payment app.</li> </ol> | 1. <b>Reserve</b> an amount in the backend  |
| <ol><li>Pay and notify payee locally,<br/>payee may verify the payment</li></ol>          | 2. <b>Pay</b> and notify payee from backend |
| <ol><li>Settle using payment rail,<br/>either party may initiate settlement.</li></ol>    | 3. <b>Settle</b> using payment rail         |

# **UPI Lite augments UPI**



The real time payment service UPI - Unified Payment Interface - in India is a tremendous success. It is currently processing more than 7 billion transactions per month. To enable UPI to grow further, NPCI - National Payment Corporation in India – the bank-owned organisation that has developed UPI,

launched UPI Lite in September 2022. The main purpose is to offload the remitting bank from UPI transactions of smaller amounts as they represent more than 50% of the total volume.

UPI Lite augments UPI by reserving funds in the backend, which allows the transaction to be cleared without involving the payer's remitting bank, and by notifying the payee of the payment before it is settled. It is still in beta and only available in the BHIM payment app developed by NPCI. A number of Indian banks have already developed the backend integration for UPI Lite. The first UPI Lite version requires that the payer has internet connectivity to initiate the payment. and sending a settlement file to the acquirer.

| UPI                                  | UPI Lite   |
|--------------------------------------|--|
| 1. Either party may initiate payment | Reserve an amount in the backend,     show the amount in payment app |
| 2. Pay and settle using UPI rail     | 2. <b>Pay</b> and notify payee from backend                          |
| 3. Notify payee from backend         | 3. <b>Settle</b> using UPI rail                                      |

The main difference between UPI Lite and Digital Cash is that in Crunchfish's solution the payer can be offline. To use UPI Lite the payer needs to be online.

It is interesting to note that Crunchfish's Digital Cash online patent application filed in Q4 2021 is directed at technology that operates like the UPI Lite extension to UPI. It is scheduled

for international filing soon to benefit from the early filing date of the Swedish patent application. It will become public after 18 months in Q2 2023 or sooner if a patent is granted before then

# Pay offline to anyone, anywhere

Crunchfish Digital Cash is all about offline payments. Payers should not have to worry whether they are online or not. Payments should work regardless of whether banking services are down or lack of internet connectivity. This new Digital Cash 1.3 version enables many more use cases as it becomes possible to pay anywhere using telecom connectivity, and to anyone on a domestic payment scheme.

Internet connectivity is a challenge in emerging markets. India is no different and especially in rural areas. Even in cities there may be difficulty to connect online in crowded areas, for instance at an event. Payers should not have to worry whether they are online or not to make a payment.

It should work regardless. Although internet may not be present to connect online, often the telecom network is available. The new Digital Cash 1.3 version exploits telecom connectivity and interoperability with the domestic payment rail, such as UPI in India, to support many more use cases.

# **Digital Cash 1.2 Digital Cash 1.3** Pay offline in proximity to Pay offline over telecom to anyone onboarded on onboarded Digital Cash merchants the e-wallet or a domestic payment scheme, e g UPI E-wallet with **Digital Cash** Bill payments Remote \$\$\$ payments Telecom payment Feature phones Soundboxes Merchant on **Proximity** Payer with Merchant onboarded on e-wallet or **Digital Cash Digital Cash** payment a domestic payment scheme, e g UPI

# Payment to anyone onboarded on the e-wallet or a domestic payment scheme

In India, the Reserve Bank of India demands payment interoperability by March 2023. All e-wallets must support payments to any receiver on UPI. If the e-wallet ensures that the payer has authorized the payment and that funds are available, it may then send the payment to any receiver using the UPI payment rail. Crunchfish Digital Cash benefits from this interoperability as it enables offline payments to anyone.

A challenge for new payment services is to build a network of merchants able to receive payments. Digital Cash in full offline mode is no exception as the merchant needs a Digital Cash verifier to trust an incoming offline payment. Onboarded merchants for Digital Cash get additional functionality, as they may receive payments in full offline mode.

#### Payment to feature phone users

A large portion of the mobile users in rural areas are not using smartphones yet. They are still on feature phones. With Digital Cash 1.3 it becomes possible to pay to users on feature phones. This is important not only for payments to people with feature phones, but also at mom-and-pop stores that often use a feature phone to receive payment confirmations.

# Payment to merchants with soundboxes

A soundbox is a very common device that smaller merchants often use in emerging markets. The common payment scenario is that the payer scans a static UPI QR-code and initiates the payment. When the payment is processed the backend notifies the soundbox, which confirms that the payment has been received with a voice message. Digital Cash 1.3 makes it possible to pay in such situations without any change for the merchants.

## **Remote payments**

Digital Cash in full offline mode are payments that are transferred to the receiver in proximity. Hence, remote payment is not supported. With Digital Cash 1.3 the payer can be offline and initiate a payment to any onboarde receiver on the e-wallet or a dosmestic payment scheme, e g UPI, and not only to receivers that are in proximity.

## **Bill payments**

It is common in India that bills contain a printed UPI QR-code. With Digital Cash 1.3 it is possible to pay bills offline, without internet connectivity. This is similar to the process of paying by scanning a UPI QR-code at a merchant.

# **Payments with larger amounts**

Payments in full offline mode may come with limits set by the central bank for security reasons. Using Digital Cash 1.3 it is possible to pay offline with higher amounts. If the amount is higher than what is allowed in proximity using full offline payments, the payment could be sent over the telecom network instead.

The new 1.3 version is built on the existing security foundation of Digital Cash, meaning that offline payments in proximity and via the telecom network will be supported by the same solution. It will be available for customers through the Crunchfish developer portal early next year.

# **Market Update**

Q3 has been very focused on the Offline Retail Payments project for Reserve Bank of India (RBI) in their Regulatory Sandbox. Crunchfish have teamed up with HDFC Bank and one additional Indian bank to demonstrate and pilot offline payments.

# प्रेस प्रकाशनी PRESS RELEASE



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September 05, 2022

Regulatory Sandbox: 'On Tap' application facility for theme 'Retail Payments' –
Shortlisting of entities

#### India

During Q2 Crunchfish together with HDFC Bank made a joint application to access the Reserve Bank of India (RBI) Regulatory Sandbox to demonstrate and pilot Offline Retail Payments. RBI approved the application on the condition of adding one more bank to also, in an offline context, demonstrate interoperability between banks. As a result, a second Indian bank was included in the project. Integration of the Crunchfish Digital Cash SDK into Payer and Merchants apps started in August and the project was formally approved by RBI September 5th. The apps will be used in the pilot to onboard users and merchants to use real money for Offline Retail Payments. The integration was completed just before the Diwali holiday and marked an important milestone in the project plan to start a pilot mid-December. With the frontend parts in place, focus will be on backend functionality and quality assurance of the entire solution before the pilot start.

The pilot will run for three months, followed by a one-month evaluation period by RBI. If successful, the pilot will provide basis for RBI's guidance and regulatory support in providing Offline Retail Payments based on Crunchfish Digital Cash platform to the payment ecosystem of India.

HDFC Bank is India's leading private bank and was among the first to receive approval from RBI to set up a private sector bank in 1994. Today, HDFC Bank has a banking network of 6,342 branches in 3,188 cities. The second bank in the project is also one of the leading private banks in India. Teaming up with these two leading banks is a great recognition of the value Crunchfish Digital Cash brings to the Indian payment market.

The RBI project also generates interest among other banks and payment services in India. As a result, one new bank has started a Proof-of-Concept (POC) for offline payments using Crunchfish Digital Cash. The bank is one of India's leading banking and financial services groups, headquartered in Mumbai. The POC will run in parallel with the RBI project and be performed in three steps with evaluations after each phase. The first step has started and involves the Crunchfish Digital Cash showcase app connected to Crunchfish's demonstration backend. In the second phase the same showcase app will be customized to mimic the look-and-feel of the bank's commercial banking app, to simulate the user experience in a commercial deployment. During the third step the customized showcase app will also be connected to the bank's own backend system, which will enable

demonstration of a full customer journey in the banks environment. If successful Crunchfish Digital Cash SDK will then be integrated into the commercial banking app.

The project with one of the major e-wallets in India has reached an important milestone as it was approved by their Senior Management. The e-wallet app today requires online connectivity at startup and thereby needs to be redesigned to host offline payment capabilities. The redesign is planned to be completed early 2023, whereafter integration of Crunchfish Digital Cash with Proxilink Bluetooth interaction will start



"HDFC Bank is excited to partner with Crunchfish Digital Cash for offline retail payments. This innovative solution will enable HDFC Bank to reach a wider audience and allow its customers and merchants to make and receive payments in complete offline mode. This will boost financial inclusion by increased adoption of digital payments as it enables transactions without the need of network connections.", says Anjani Rathor, Chief Digital Officer at HDFC Bank.

# Southeast Asia

In parallel with the activities in India, Crunchfish and Sirius completed integration of Crunchfish Digital Cash into the Sirius' Payment Ecosystem Solution. The integration makes onboarding of banks and payment service providers much easier, as they don't need to develop backend functionality by themselves. In case banks and payment service providers don't have an existing e-wallet application, Sirius also offers a white-label e-wallet with Crunchfish Digital Cash pre-integrated, which will even further simplify the deployment of an offline payment solution. Crunchfish get an excellent channel to new customers with the joint solution and through Sirius' presence in Asia and South America.

The partnership with V-Key around sales and marketing in Southeast Asia continues with positive developments. V-Key showcased Crunchfish Digital Cash in their booth at the large fintech event Singapore Fintech.

During the quarter Crunchfish reached the final of the G20 TechSprint 2022, arranged by BIS Innovation Hub and Bank Indonesia. G20 TechSprint 2022 focus was on CBDCs, and particularly on challenges and opportunities around three problem statement categories deemed to be of high priority by the global central banking and regulatory community related to wholesale and retail CBDCs. Crunchfish participated with the Digital Cash platform for the category Enabling Financial Inclusion.

# **Technology Update**

Crunchfish focus continuously on adding and patenting Digital Cash features as well as enhancing the security of the solution. Digital Cash 1.2 was released in Q3 and we have recently announced Digital Cash 1.3 version that makes Digital Cash applicable to many more use cases.

# Release of Digital Cash 1.2

Digital Cash 1.2 was released in Q3 with a focus on security and streamlining the integration of the Digital Cash SDK. Highlights include:

- New risk limits that comply with RBI regulations in India
- Access control management
- Improved certificate management
- Improved fraud detection capabilities and fraud management
- Additional security features to prevent cloning and double spending offline
- Improved backend integration components and documentation

## **Product roadmap - Digital Cash 1.3**

The focus of Digital Cash 1.3 is to enable offline payments anywhere using telecom connectivity, to anyone that is onboarded on a domestic payment scheme. By this upgrade it enables Digital Cash payments in additional situations compared to full offline proximity payments:

- Payment to anyone onboarded on the e-wallet or a domestic payment scheme, e g UPI
- Payment to feature phone users
- Payment to merchants with soundboxes
- Remote payments
- Bill payments
- Payments with larger amounts

# Product roadmap - Digital Cash 2.0

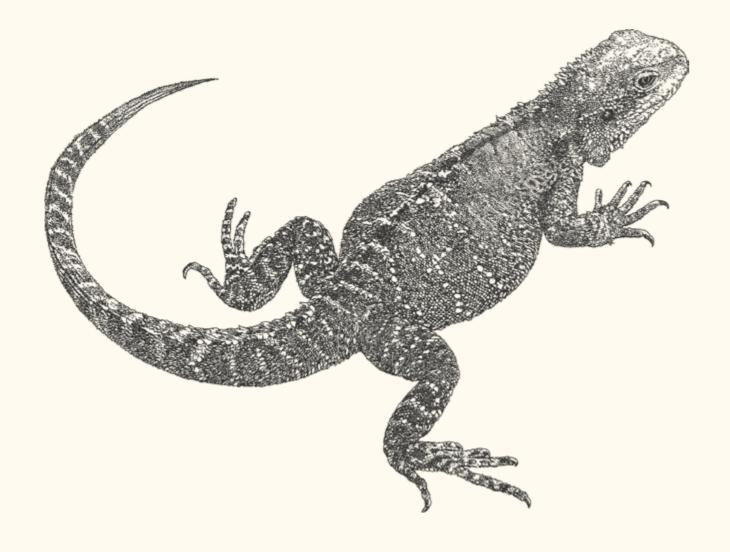
The focus of Digital Cash 2.0 release is to improve industrialisation of the Digital Cash solution. It involves refactoring of the SDK and APIs to decrease the size of the SDK and to simplify integration and increase configurability for e-wallet issuers. It includes enhanced security features and increased possibility for e-wallet issuers to manage the Digital Cash Trusted Application if suspicious activities are detected. The documentation will also be improved based on customer inputs.

## **Patent portfolio overview**

Crunchfish have a very extensive patent portfolio that has developed over many years. Parts of the portfolio are protecting innovations in areas that are not actively pursued. Crunchfish intend to conduct a review of the patent portfolio during Q4 with the aim to concentrate our focus and spend on the commercially most viable patents and patent applications.



# Gesture Interaction





# Al-technology for Gesture Control

Crunchfish develops AI technology that detects and tracks hands and body. The technology can be used in several areas but is optimized for AR/VR (augmented & virtual reality) and the automotive industry. During the quarter several exciting commercial agreements were signed including the largest license agreement to date with OPPO and another for XR Skeleton and XR Skeleton Stereo with Ximmerse. In parallel the work has continued to further extend the product portfolio with product releases of XR Skeleton Stereo as well as XR Skeleton single camera supporting two hands.



# Gesture control and Crunchfish Skeleton platform

Gesture control is about interacting with electronic devices without having to touch a screen or press physical buttons. Using a camera sensor and hardware with a processor, Crunchfish's gesture control technology makes it possible to interact from a distance by detecting and tracking the movements of the hands and body and then connecting them to various functions of a device.

The product XR Skeleton contains a software architecture that enables a skeletal image of each hand represented by 21 points. Unique combinations of different neural networks have been used to train algorithms and create detection and tracking functionality. The development speed of new products that Crunchfish's experienced software architects and sharp development team are demonstrating, not only creates a wide range of new solution areas, but also shows technical ability and flexibility of the company's advanced gesture control software.

Crunchfish Skeleton platform – based on the XR Skeleton product - forms the basis for the continued development of existing and new products and have during the quarter been supplemented with additional functions and adaptations to specific contexts and areas of use. The platform itself consists of several different components such as inhouse developed tools, camera rigs, inhouse designed neural networks and processes for generating synthetic data.

XR Skeleton Stereo is the flagship hand tracking product of the platform and enables high precision tracking and accuracy in all three dimensions due to the dual-camera input. The solution also provides tracking of 42 points simultaneously (21 points on each hand) with high precision measurement of the distance between the camera sensors and each point of the hands.

With XR Skeleton Stereo as a base, detection of the whole body is also possible by initially applying 21 points and then 34 points from head to toe, which creates a full body tracking solution - FB Skeleton (under development). By combining hand tracking and body tracking, Crunchfish PS Skeleton was developed. PS Skeleton can be used for interaction in vehicles, for interaction with smart TVs etc. since it makes it possible to keep track of the number of people in front of a screen, detect hands super-fast and also provide information about body positions and hand movements.



# **Market Update**

Crunchfish has during the period signed several new agreements where the two-year contract with OPPO is very exciting and the largest contract to date. Participation at Augmented World Expo (AWE) 2022 – one of the largest AR/VR shows in Europe and and discussions about collaboration with MobilityXlab are a few other highlights. Crunchfish's main market segments are AR/VR and automotive, since there is a clear demand for hand & body tracking in both segments.



#### **Customer projects**

A new commercial agreement was signed with OPPO Telecommunications - one of the largest mobile phone manufacturers in the world - to provide their consumer devices with Crunchfish's gesture control technology. The agreement is valid until end of 2023, with an upfront fee of US\$500,000 including a commercial license and technical support.

The signed agreement includes the use of Crunchfish's gesture control software for pose detection in OPPO's devices. The license agreement covers shipment of devices during 2022 and 2023 which means that many of OPPO's consumer products will include Crunchfish's software for

gesture control in the coming year. The agreement is valid until end of December 2023.

OPPO strives to be a sustainable company that contributes to a better world and exists to elevate life through technological artistry. As one of the top 5 largest mobile phone manufacturers in the world and a strong actor in consumer electronics, OPPO is an important influencer on the market. With the new agreement in place, the collaboration between Crunchfish and OPPO continues for another term that enables an even stronger base for future OPPO products.



"We strongly believe the user experience and a smooth interaction is fundamental for the success of consumer products and intuitive gesture interaction will be crucial to ensure a great user experience. We are very happy with Crunchfish's technology and look forward to continuing our collaboration", says Max Fan, Business Director at OPPO Mobile Communications.

Ximmerse (Guangdong Virtual Reality Technology CO LTD) in China signed a commercial license agreement to provide Ximmerse's next generation AR-glasses with Crunchfish's latest hand tracking technologies - XR Skeleton and XR Skeleton Stereo. Ximmerse will integrate Crunchfish's software in all new models of AR-glasses to enable touchless interaction. It is a 3-years agreement, with a business model that includes an initial fee of \$25,000US as well as a running royalty per produced unit that includes Crunchfish's software.

The agreement gives Ximmerse the right to use Crunchfish's technologies - XR Skeleton and XR Skeleton Stereo - in AR-glasses and other mixed reality products worldwide.

Crunchfish XR Skeleton Stereo is the company's latest and most advanced software to date and provides support for two-hand interaction and the use of two camera sensors simultaneously.

Ximmerse was founded in 2014 and is a trusted provider of mixed reality products since many years. The company's product – RhinoX – has been a great success and next generation models with even more advanced functionality and features are under development and will create opportunities for customers around the world.



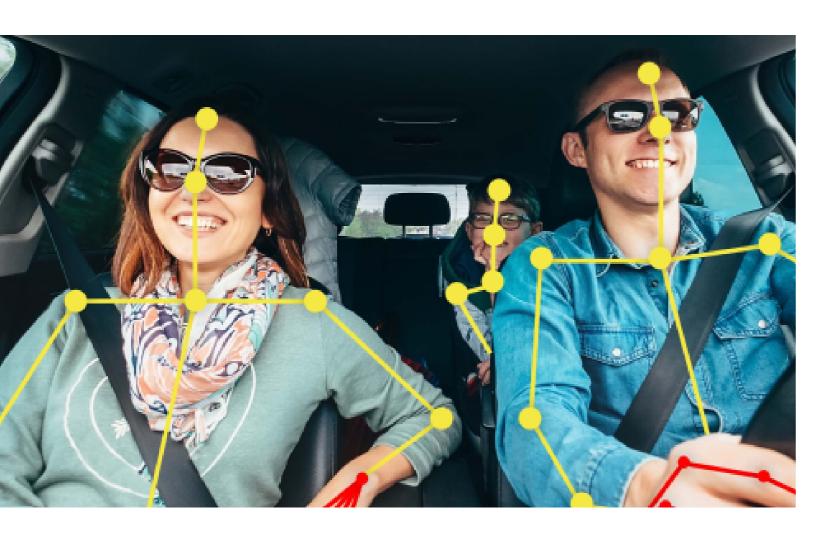
"We are very excited about our next generation augmented reality products and see that intuitive gesture interaction will be crucial to ensure a great user experience. We are delighted to embrace Crunchfish's XR Skeleton technology and look forward to a fruitful collaboration", says Mike Bailey, Co-Founder of Ximmerse.



## MobilityXlab

MobilityXlab is an interesting partner given Crunchfish's business focus in the automotive industry. MobilityXlab offers emerging companies with pioneering ideas within mobility the opportunity to accelerate with the seven founding companies: CEVT, Ericsson, Polestar, Veoneer, Volvo Cars, Volvo Group and Zenseact. MobilityXlab is funded by partner companies and supported by the Region Västra Götaland and Vinnova (Sweden's Innovation Agency).

One part of MobilityXlab's offering is their 6-months innovation programs. Selected companies go on a journey with MobilityXlab who will facilitate meetings and checkpoints. From the start of the program, the company will get an assigned partner lead that is an internal champion responsible for the continuous progress of the collaboration. Crunchfish has during the quarter initiated discussions with MobilityXlab and strive to become a member in their innovation programs during 2023.



#### Usecases in AR/VR and Automotive

Smart glasses continue to evolve from devices with a small screen in front of one eye and a single camera sensor to more advanced devices that project the screen in front of both eyes and have multiple camera sensors. For the consumer market, AR glasses with a stereo camera configuration will probably become standard as it adds a lot to the AR experience. From a gesture control perspective, this provides conditions for both greater precision as well as interaction with both hands simultaneously. The recently upgraded Crunchfish XR Skeleton Stereo will therefore be an important component in the company's portfolio.

In enterprise and industry, there is also great potential for AR/VR with warehouses / logistics, training and machine maintenance with remote expert support as some examples. What model of AR/VR devices that is used in different environments vary depending on the area of use, but common is that they all need gesture control for effective interaction and Crunchfish has several different software products that may be suitable depending on the type of hardware.

The automotive industry is a growing market segment where hand & body tracking is starting to gain momentum. The increase is partly driven by the increase in the number of screens in vehicles, but above all by the forthcoming legal requirements regarding safety.

To help prevent accidents, car manufacturers are developing safety systems that keep track of the driver's condition and send alerts when a person shows signs of deviant behavior. These advanced systems include camera-based driver monitoring systems (DMSs) to detect inattention or fatigue of the driver and send an alert if the system detects that the driver appears distracted. There are also systems for monitoring passengers and other things in the vehicle that come in the next step. These are called OMS (Occupant Monitoring Systems) and will be able to provide additional information about the safety of a vehicle.

To meet these use cases, Crunchfish's PS Skeleton was developed and offers a competitive product to the automotive industry. With both hand tracking and soon body tracking, functions such as detection of drivers and passengers are made possible.

With the solution PS Skeleton optimized for RGB and IR camera sensors, Crunchfish has an excellent opportunity to take a position in the rapidly changing automotive industry by meeting the legal requirements that will be set for DMS. To use gestures to interact with entertainment systems in the front seat is another promising use case in vehicles. As screens are becoming more common also in the back seat, the demand for gesture control will increase in this area to solve problems such as children in car seats not reaching the screen.

# **Technology Update**

Crunchfish Skeleton platform and a sharp development team not only pave the way for many new solution areas but also show the Crunchfish Skeleton platform's great technical flexibility for advanced hand tracking. During the third quarter two commercial product releases of XR Skeleton Stereo was shipped to customers including new functionality and improved performance.

#### **Release of XR Skeleton Stereo 1.0**

A commercial product release - XR Skeleton Stereo 1.0 - was released to customers and partners. With tracking of 42 points simultaneously (21 points on each hand) and high precision measurement of the distance between camera sensors and each of the points on the hands, Crunchfish enables fantastic true to life interaction with virtual objects in three dimensions.

The development team has also since the spring worked on a new detector algorithm that is fully optimized for a stereo camera configuration and detection of two hands simultaneously. The new detector algorithm is included in the upgrade of XR Skeleton Stereo released during the period and will increase the detection speed substantially as well as provide a 30% higher detection rate. The detection rate is a measure of how fast and reliable the software can detect a specific object in the image streams from the cameras.

The XR Stereo solution uses two camera sensors in parallel, with a distance between the cameras like the distance between human eyes, providing true three-dimensional image information of the distance between camera and every point tracked on the hands. The camera sensors also have a wide-angle perspective, which gives a large interaction space. The hands must be in the camera view (image) to be detected and tracked.

The areas of use for XR Skeleton Stereo includes interaction with virtual objects in AR/VR as well as new ways of tracking hands at a distance and controlling various screen functions and menus (watch video). By identifying all the moving parts and contours of the hand and then linking these points (coordinates) together into a skeletal structure, interaction with objects as in the real world becomes possible.



# Release of XR Skeleton 2.0 - Single camera

Crunchfish has during the period made XR Skeleton 2.0 available to customers and partners. This is the second generation of the flagship product – XR Skeleton - that target devices with only a single camera. In this upgraded version the power consumption decreased due to more efficient use of different processing units, but most importantly support for tracking of two hands simultaneously has been added.

XR Skeleton 2.0 is an upgraded version of the XR Skeleton 1.1 and target use cases in primarily AR/VR, but the algorithms are also applicable in the automotive industry. With more wide-angle camera sensors available on the market, single sensor solutions are becoming more common. The benefits with only one wide-angle sensor are lower cost, less power consumption and that it is enough to cover a large area in front of the user that enables a wider interaction space for hand tracking. Interaction with two hands then becomes natural.

Compared with having two camera sensors as in the stereo camera set-up, the accuracy when moving the hands in the depth direction is slightly less precise with a single camera. Still, it is possible to enable a great user experience in many use cases also with a single camera. Especially with a wideangle sensor since both hands can fit in the field of view of the camera and be used simultaneously when interacting with the device.

In the car environment, often just one sensor is used to track driver and passenger in the front seat. Tracking of two hands and sometimes even four hands is required. Crunchfish's solution can support also four hands with the latest algorithms. In AR/VR and in particularly smart glasses, there is sometimes only one camera sensor between the lenses to save cost. Still, support for interaction with two hands is required, which is supported in XR Skeleton 2.0.



"After specific requests from many customers regarding support of two hands in the single camera hardware environment, we decided to extend our solution with that functionality. With a modified neural network and programming, I am now proud to be able to deliver this upgraded XR Skeleton product that is faster, consumes less power and support tracking of two hands", says Jens-Henrik Lindskov, R&D Director at Crunchfish Gesture Interaction.

## **Product roadmap**

The hardware in future generations of AR/VR products will certainly be faster, smaller and more energy efficient. They will also support more advanced camera configurations, creating even more gesture interaction opportunities. Therefore, support for multiple camera sensors (stereo camera configuration) that increases precision in all three dimensions, as well as tracking of two hands simultaneously will be very important. For optimal performance, Crunchfish's products also need to be able to execute on custom processors such as Graphics Processing Unit (GPU) and Neural Processing Unit (NPU).

The roadmap for Q4 2022 and 2023 includes work with the next generation's neural network and further balance the solution with large amounts of data, simulated backgrounds,

synthetic objects, lighting & shadow conditions, etc., to secure that XR Skeleton will be able to meet even the toughest requirements from customers and end users. A commercial product release - XR Skeleton Stereo 1.1 was delivered to customers during the period and commercial products including the software are expected to ship during 2023.

The development of combined solutions with XR Skeleton, PS Skeleton and the full body solution - FB Skeleton - will also continue, to create conditions in order to fully support requirements from e.g. the automotive industry. Support for other types of camera sensors will also be important to enable new future use cases.

# **Financials**



# Financial report

# Sales and earnings for the quarter

Net sales amounted to SEK 5 806 (1 056) thousand for the third quarter and operating expenses amounted to SEK 10 401 (11 330) thousand. EBITDA for the period amounted to SEK 639 (-4 918) thousand. Loss before tax for the third quarter amounted to SEK -900 (-7 293) thousand and has been charged with amortization of intangible assets of SEK 1 580 (1 876) thousand and tangible fixed assets of SEK 55 (57) thousand.

The increase in net sales is due to the commercial agreement with OPPO Mobile Telecommunications. The agreement is valid retroactive from December 2021 to December 2023, with an upfront fee of US\$ 500 000 including a commercial license and technical support. The upfront fee regarding the commercial license has been recognized as revenue in Q3 as the software were delivered to the customer before the end of the quarter and the company has no future commitment. US\$ 360 000 of the upfront fee is due on November 30 and US\$ 140 000 shall be paid before March 1, 2023.

# Sales and earnings for the first nine months of the year

Net sales amounted to SEK 6 156 (3 074) thousand for the period and operating expenses amounted to SEK 32 321 (38 004) thousand. EBITDA for the period amounted to SEK -9 832 (-16 786) thousand. Loss before tax for the period amounted to SEK -14 382 (-23 689) thousand and has been charged with amortization of intangible assets of SEK 4 582 (5 639) thousand and tangible fixed assets of SEK 166 (239) thousand.

#### Investments

During the third quarter, the Group invested SEK 3 133 (2 925) thousand in intangible fixed assets and 0 (0) in tangible fixed assets. Investments in associated companies amounted to SEK 0 (0) thousand.

During the first nine months of the year, the Group invested SEK 9 996 (10 720) thousand in intangible fixed assets and SEK 60 (0) thousand in tangible fixed assets. Investments in associated companies amounted to SEK 0 (1 500) thousand.

## Liquidity and financing

At the end of the third quarter the Group's cash and cash equivalents amounted to SEK 10 833 (6 028) thousand. Cash flow from operating activities during the third quarter amounted to SEK -5 360 (-6 895) thousand.

## **Associated companies**

Blippit AB is an associated company, and the holding is reported in the consolidated accounts using the equity method. The equity method means that the value of the shares in the associated company reported in the Group corresponds to the Group's share in the equity of the associated company. Crunchfish's share of the associated company's earnings is reported as a separate item in the consolidated income statement.

#### Staff

As of September 30, 2022, the number of employees was 21 (23).

#### Risks and uncertainties

Several different risk factors could impact Crunchfish's operations and industry negatively. It is therefore very important to consider relevant risks in addition to the Company's growth opportunities. Relevant risks are presented in the prospectus issued by Crunchfish AB in October 2021 and the annual report for FY 2021, which can be found at crunchfish.com.

# **Related party transactions**

Company management and administrative staff are employed in the parent company Crunchfish AB. Reported sales in the parent company consists of income from services rendered for management and administration of the company's two subsidiaries. Crunchfish Digital Cash AB performs development and administrative services for the jointly owned company Blippit AB. Of the group's net sales for the third quarter, SEK 39 thousand (549) relates to fees invoiced to Blippit. Of the group's net sales for the first nine months, SEK 141 thousand (2 361) relates to fees invoiced to Blippit.

# Sales and earnings for the quarter, parent company

The parent company's net sales amounted to SEK 3 864 (4 128) thousand for the third quarter and operating expenses to amounted to SEK -4 414 (-4 604) thousand. EBITDA for the period amounted to SEK -78 (34) thousand. During the third quarter, the parent company invested SEK 0 (0) thousand in intangible fixed assets and SEK 0 (0) thousand in tangible fixed assets.

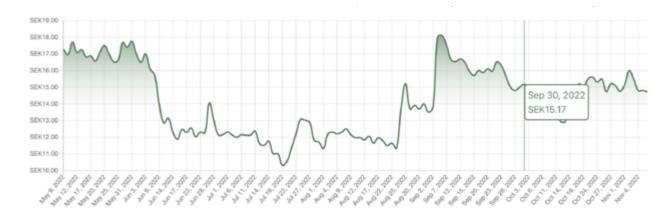
# Sales and earnings for the first nine months of the year, parent company

The parent company's net sales amounted to SEK 13 172 (16 246) thousand for the period and operating expenses to amounted to SEK -14 606 (-17 239) thousand. EBITDA for the period amounted to SEK 143 (559) thousand. During the period, the parent company invested SEK 0 (0) thousand in intangible fixed assets and SEK 60 (0) thousand in tangible fixed assets.

# Major shareholders for Crunchfish AB (publ) per September 30th 2022

| Shareholder  | # of shares | % Share |
|--|-------------|---------|
| Femari Invest AB (CEO Joachim Samuelsson & Petra Samuelsson) | 7 500 000   | 23.86%  |
| Corespring Invest AB (Chairmain Göran Linder)                | 5 668 837   | 18.03%  |
| Paul Cronholm (Founder & CTO)                                | 1 093 800   | 3.48%   |
| Carlquist Holding AB   | 1 000 000   | 3.18%   |
| Mikael Kretz incl. company holdings                          | 720 000     | 2.29%   |
| Håkan Paulsson incl. family and company holdings             | 625 000     | 1.99%   |
| Claes Capital Consulting AB                                  | 342 088     | 1.09%   |
| Lars Andreasson med familj                                   | 302 260     | 0.96%   |
| Granitor Invest AB   | 298 250     | 0.95%   |
| Mats Kullenberg  | 252 473     | 0.80%   |
| Total ten largest shareholders                               | 17 802 708  | 56.63%  |
| Other shareholders (approx 6 000)                            | 13 633 590  | 43.37%  |
| Total  | 31 436 298  | 100.00% |

## Share price development during 6 months



#### Financial calendar

Crunchfish AB publishes financial reports after each quarter.

Upcoming reports are planned to be published according to the schedule below:

# Interim report January - March 2022

May 18, 2022, 8:30 am CEST

#### Half-year report 2022

August 25, 2022, 8:30 am CEST

#### Interim report January - September 2022

November 16, 2022, 8:30 am CET

# Year-end report 2022

February 16, 2023, 8:30 am CET

## **Accounting principles**

This report has been drafted according to the Annual accounts act (Årsredovisningslagen) and BFNAR 2012:1 (K3).

#### **Auditor's review**

This report has not been subject to review by the company's auditor.

# **Company information**

Crunchfish AB (publ), corporate registration number 556804–6493, is a limited company seated in Malmö, Sweden.

#### **Certified Adviser**

Västra Hamnen Corporate Finance AB is the company's Certified Adviser.

E-mail: ca@vhcorp.se Phone: +46 40 200 250

#### **Further information**

211 19 Malmö

For further information, please contact: Joachim Samuelsson, CEO ir@crunchfish.com Crunchfish AB (publ) Stora Varvsgatan 6A

# Statement by the Board of Directors and the CEO

The Board of Directors and the CEO hereby assures that this interim report gives a fair overview of the company's operations, financial status, and result.

Malmö, November 16, 2022

The Board of Directors
Göran Linder (chairman)
Robert Ekström
Susanne Hannestad
Joachim Samuelsson
Malte Zaunders

This information is information that Crunchfish AB is obliged to publish in accordance to the EU Market Abuse Regulation. The information was provided by the contact person above for publication on November 16, 2022.



# Group income statement (SEK)

|   | Q3 2022     | Q3 2021     | Q1-Q3 2022   | Q1-Q3 2021  | 2021        |
|---|-------------|-------------|--------------|-------------|-------------|
| Operating income  |             |             |              |             |             |
| Net sales   | 5 805 573   | 1 055 973   | 6 156 359    | 3 073 760   | 3 956 665   |
| Own work capitalized                                    | 3 133 003   | 2 925 482   | 9 996 348    | 10 719 500  | 14 341 929  |
| Other operating income                                  | 467 065     | 498 474     | 1 588 015    | 1 547 578   | 2 045 203   |
| Total operating income                                  | 9 405 641   | 4 479 929   | 17 740 722   | 15 340 838  | 20 343 797  |
| Operating expenses                                      |             |             |              |             |             |
| Goods for resale  | 0           | 0           | 0            | -150 098    | -210 688    |
| Other external expenses                                 | -3 644 164  | -3 202 894  | -11 771 283  | -12 553 752 | -16 010 862 |
| Personnel expenses                                      | -5 102 761  | -5 283 365  | -15 735 447  | -17 575 356 | -23 387 593 |
| Depreciation of tangible and intangible fixed asset     | -1 634 534  | -1 931 894  | -4 747 763   | -5 877 750  | -7 661 499  |
| Other operating expenses                                | 0           | -209 724    | 0            | -283 349    | -755 275    |
| Loss from participations in associated companies        | -19 590     | -702 348    | -66 189      | -1 563 875  | -9 186 410  |
| Total operating expenses                                | -10 401 049 | -11 330 225 | -32 320 682  | -38 004 180 | -57 212 327 |
| Operating profit  | -995 408    | -6 850 296  | -14 579 960  | -22 663 342 | -36 868 530 |
| operating pront   | 333 400     | 0 030 230   | -14 37 3 300 | 22 003 342  | 30 000 330  |
| Financial items   |             |             |              |             |             |
| Other interest income and similar profit items          | 96 972      | 15 949      | 216 889      | 87 522      | 111 464     |
| Interest expense and similar loss items                 | -1 948      | -458 751    | -18 689      | -1 112 947  | -1 711 092  |
| Profit or loss from financial items                     | 95 024      | -442 802    | 198 200      | -1 025 425  | -1 599 628  |
| Profit or loss after financial items                    | -900 384    | -7 293 098  | -14 381 760  | -23 688 767 | -38 468 158 |
|   |             |             |              |             |             |
| Profit or loss before tax                               | -900 384    | -7 293 098  | -14 381 760  | -23 688 767 | -38 468 158 |
| Taxes   |             |             |              |             |             |
| Tax on income for the period                            | 0           | 0           | 0            | 0           | 0           |
| Profit or loss for the period/year                      | -900 384    | -7 293 098  | -14 381 760  | -23 688 767 | -38 468 158 |
|   |             |             |              |             |             |
| Key figures   |             |             |              |             |             |
| EBITDA  | 639 126     | -4 918 402  | -9 832 197   | -16 785 592 | -29 207 031 |
| Earnings per share                                      | -0.03       | -0.26       | -0.46        | -0.84       | -1.34       |
| Number of shares average                                | 31 436 298  | 28 348 190  | 31 095 631   | 28 348 190  | 28 777 708  |
| Number of shares at balance sheet date                  | 31 436 298  | 28 348 190  | 31 436 298   | 28 348 190  | 30 925 298  |
| Earnings per share after full dilution                  | -0.03       | -0.25       | -0.44        | -0.80       | -1.27       |
| Number of shares after full dilution average            | 32 338 098  | 29 760 990  | 32 338 098   | 29 742 823  | 30 176 883  |
| Number of shares after full dilution balance sheet date | 32 338 098  | 29 760 990  | 32 338 098   | 29 760 990  | 32 338 098  |



# Group balance sheet (SEK)

| Assets                                    | Sep 30 2022 | Sep 30 2021 | Dec 31 2021 |
|---|-------------|-------------|-------------|
| Fixed assets                              |             |             |             |
|   |             |             |             |
| Intangible assets                         |             |             |             |
| Capitalized expenses for development work | 32 736 933  | 25 626 209  | 27 322 509  |
| Total intangible fixed assets             | 32 736 933  | 25 626 209  | 27 322 509  |
| Tangible fixed assets                     |             |             |             |
| Equipment                                 | 590 440     | 1 025 623   | 696 077     |
| Total tangible fixed assets               | 590 440     | 1 025 623   | 696 077     |
| Financial assets                          |             |             |             |
| Participation in associated companies     | 70 335      | 7 759 059   | 136 524     |
| Other long-term receivables               | 0           | 4 900       | 0           |
| Total financial assets                    | 70 335      | 7 759 059   | 136 524     |
|   |             |             |             |
| Total fixed assets                        | 33 397 708  | 34 410 891  | 28 155 110  |
| Current assets                            |             |             |             |
| Current receivables                       |             |             |             |
| Account receivables                       | 6 113 963   | 840 872     | 771 340     |
| Receivables from associated companies     | 7 500       | 144 750     | 33 281      |
| Other receivables                         | 962 068     | 1 150 809   | 1 092 731   |
| Prepayments and accrued income            | 1 089 047   | 2 248 033   | 1 384 171   |
| Total current receivables                 | 8 172 578   | 4 384 464   | 3 281 523   |
| Cash and bank balances                    |             |             |             |
| Cash and bank balances                    | 10 832 578  | 6 027 701   | 32 755 502  |
| Total cash and bank balances              | 10 832 578  | 6 027 701   | 32 755 502  |
| Total current assets                      | 19 005 156  | 10 412 165  | 36 037 025  |
|   | 15 003 130  | 10 712 103  | 30 037 023  |
| Total assets                              | 52 402 864  | 44 823 056  | 64 192 135  |



# Group balance sheet (SEK)

| Equity and liabilites                                 | Sep 30 2022  | Sep 30 2021  | Dec 31 2021  |
|---|--------------|--------------|--------------|
| Equity  |              |              |              |
| Equity attributable to parent company shareholders    |              |              |              |
| Share capital   | 1 446 070    | 1 304 017    | 1 422 564    |
| Other contributed capital                             | 253 679 582  | 189 895 143  | 249 140 087  |
| Other capital including profit or loss for the period | -209 100 912 | -179 939 762 | -194 719 152 |
| Total equity  | 46 024 740   | 11 259 398   | 55 843 499   |
|   |              |              |              |
| Current liabilities                                   |              |              |              |
| Lease liabilities                                     | 409 349      | 618 336      | 560 584      |
| Other current interest-bearing liabilities            | 0            | 25 000 000   | 0            |
| Accounts payable                                      | 967 939      | 797 366      | 1 104 350    |
| Current tax liability                                 | 0            | 19 267       | 4 273        |
| Other liabilities                                     | 755 732      | 2 158 770    | 2 491 917    |
| Accrued expenses and accrued income                   | 4 245 104    | 4 969 919    | 4 187 512    |
| Total current liabilities                             | 6 378 124    | 33 563 658   | 8 348 636    |
|   |              |              |              |
| Total equity and liabilities                          | 52 402 864   | 44 823 056   | 64 192 135   |
|   |              |              |              |
| Key Figures   |              |              |              |
| Equity-assets-ratio                                   | 87.8%        | 25.1%        | 87.0%        |
| Debt-to-equity ratio                                  | 0.9%         | 227.5%       | 1.0%         |
| Interest-bearing net debt                             | n/a          | 19 590 635   | n/a          |

# Changes in the group equity (SEK)

|                                    | Q3 2022    | Q3 2021    | Q1-Q3 2022  | Q1-Q3 2021  | 2021        |
|------------------------------------|------------|------------|-------------|-------------|-------------|
| Equity at beginning of period/year | 46 961 123 | 18 552 496 | 55 843 499  | 34 838 074  | 34 838 074  |
| Share issues                       |            | 0          | 4 599 000   | 0           | 64 427 700  |
| Issue costs                        | -35 999    | 0          | -35 999     | 0           | -5 064 208  |
| Warrant premiums                   | 0          | 0          | 0           | 110 091     | 110 091     |
| Profit or loss for the period/year | -900 384   | -7 293 098 | -14 381 760 | -23 688 767 | -38 468 158 |
|                                    |            |            |             |             |             |
| Equity at end of period /year      | 46 024 740 | 11 259 398 | 46 024 740  | 11 259 398  | 55 843 499  |



# Group cash flow statement (SEK)

|   | Q3 2022    | Q3 2021    | Q1-Q3 2022  | Q1-Q3 2021  | 2021        |
|---|------------|------------|-------------|-------------|-------------|
| Operating activities                                  |            |            |             |             |             |
| Operating profit or loss                              | -995 408   | -6 850 296 | -14 579 960 | -22 663 342 | -36 868 530 |
| Adjustments for non-cash intems                       | 1 654 122  | 2 837 051  | 4 809 678   | 7 718 059   | 17 584 557  |
| Interest received etc.                                | 117 492    | 515        | 136 963     | 2 045       | 12 484      |
| Interest paid   | -1 948     | -466 830   | -18 689     | -1 082 711  | -1 680 856  |
| Income tax paid                                       | 0          | 0          | 0           | 0           | 0           |
| Cash flow from operating activities before            |            |            |             |             |             |
| •   | 774 250    | 4 470 560  | 0.653.000   | 16.035.040  | 20.052.245  |
| changes in working capital                            | 774 258    | -4 479 560 | -9 652 008  | -16 025 949 | -20 952 345 |
| Cash flow from changes in working capital             |            |            |             |             |             |
| Decrease(+)/increase(-) in receivables                | -4 939 638 | -1 292 597 | -4 891 055  | 1 322 090   | 2 425 031   |
| Decrease(-)/increase(+) in current liabilities        | -1 195 061 | -1 122 566 | -1 815 004  | -716 142    | -858 418    |
|   |            |            |             |             |             |
| Cash flow from operating activities                   | -5 360 441 | -6 894 723 | -16 358 067 | -15 420 001 | -19 385 732 |
|   |            |            |             |             |             |
| Investing activities                                  |            |            |             |             |             |
| Investments in associated companies                   | 0          | -500 000   | 0           | -1 500 000  | -1 500 000  |
| Investmetn in technology development                  | -3 133 003 | -2 925 482 | -9 996 348  | -10 719 500 | -14 341 929 |
| Investments in equipment                              | 0          | 0          | -60 202     | 0           | 0           |
| Change in cash deposits                               | 0          | 4 900      | 0           | 4 900       | 4 900       |
| Cash flow from investing activities                   | -3 133 003 | -3 420 582 | -10 056 550 | -12 214 600 | -15 837 029 |
| cush non-non-investing accordies                      | 3 .33 003  | 3 420 302  | 10 030 330  | 12214000    | 15 057 025  |
| Financing activities                                  |            |            |             |             |             |
| Share issue   | 326 279    | 0          | 4 563 002   | 0           | 59 363 492  |
| Loans from shareholders                               | 0          | 15 000 000 | 0           | 25 000 000  | 0           |
| Amortization of financial leasing agreements          | -34 444    | -57 327    | -151 235    | -170 722    | -228 474    |
| Warrant premiums paid                                 | 0          | 0          | 0           | 110 091     | 110 091     |
|   |            |            |             |             |             |
| Cash flow from financing activities                   | 291 835    | 14 942 673 | 4 411 767   | 24 939 369  | 59 245 109  |
|   |            |            |             |             |             |
| Change in cash and cash equivalents                   | -8 201 609 | 4 627 368  | -22 002 850 | -2 695 232  | 24 022 348  |
| Cash and cash equivalents at beginning of period/year | 19 054 706 | 1 384 899  | 32 755 502  | 8 667 692   | 8 667 692   |
| Exchange rate difference in cash and cash equivalents | -20 519    | 15 434     | 79 926      | 55 241      | 65 462      |
| Cash and cash equivalents at end of period/year       | 10 832 578 | 6 027 701  | 10 832 578  | 6 027 701   | 32 755 502  |
|   |            |            |             |             |             |



# Parent company income statment (SEK)

|  | Q3 2022    | Q3 2021    | Q1-Q3 2022  | Q1-Q3 2021  | 2021        |  |
|--|------------|------------|-------------|-------------|-------------|--|
| Operating income   |            |            |             |             |             |  |
| Net sales  | 3 864 190  | 4 128 425  | 13 172 493  | 16 245 722  | 20 932 097  |  |
| Other operating income                                   | 467 065    | 498 474    | 1 561 056   | 1 525 731   | 2 023 356   |  |
| Total operating income                                   | 4 331 255  | 4 626 899  | 14 733 549  | 17 771 453  | 22 955 453  |  |
|  |            |            |             |             |             |  |
| Operating expenses                                       |            |            |             |             |             |  |
| Other external expenses                                  | -2 454 223 | -1 988 537 | -7 584 514  | -7 952 011  | -10 125 722 |  |
| Personnel expenses                                       | -1 954 629 | -2 604 088 | -7 006 001  | -9 260 137  | -11 971 263 |  |
| Depreciation of tangible and intangible fixed asset      | -4 973     | -11 328    | -15 674     | -26 992     | -32 097     |  |
| Total operating expenses                                 | -4 413 825 | -4 603 953 | -14 606 189 | -17 239 140 | -22 129 082 |  |
|  |            |            |             |             |             |  |
| Operating profit   | -82 570    | 22 946     | 127 360     | 532 313     | 826 371     |  |
|  |            |            |             |             |             |  |
| Financial items  |            |            |             |             |             |  |
| Profit/loss from participation in group companies        | 0          | -610 000   | 0           | -610 000    | -610 000    |  |
| Other interest income and similar profit items           | 157 971    | 431 110    | 334 535     | 805 108     | 1 346 307   |  |
| Interest expense and similar loss items                  | -2         | -455 233   | -2 516      | -1 102 690  | -1 701 717  |  |
| Profit or loss from financial items                      | 157 969    | -634 123   | 332 019     | -907 582    | -965 410    |  |
|  |            |            |             |             |             |  |
| Profit or loss after financial items                     | 75 399     | -611 177   | 459 379     | -375 269    | -139 039    |  |
|  |            |            |             |             |             |  |
| Profit or loss before tax                                | 75 399     | -611 177   | 459 379     | -375 269    | -139 039    |  |
| _  |            |            |             |             |             |  |
| Taxes  | 2          | •          | •           | •           |             |  |
| Tax on income for the period                             | 0          | 0          | 0           | 0           | 0           |  |
| Profit or loss for the period/year                       | 75 399     | -611 177   | 459 379     | -375 269    | -139 039    |  |
| Profit of loss for the period/year                       | 75 599     | -011 1//   | 4373/7      | -373 209    | -139 039    |  |
| Key figures  |            |            |             |             |             |  |
| EBITDA   | -77 597    | 34 274     | 143 034     | 559 305     | 858 468     |  |
| Earnings per share                                       | 0.00       | -0.02      | 0.01        | -0.01       | 0.00        |  |
| Number of shares, average                                | 31 436 298 | 28 348 190 | 31 095 631  | 28 348 190  | 28 777 708  |  |
| Number of shares at balance sheet date                   | 31 436 298 | 28 348 190 | 31 436 298  | 28 348 190  | 30 295 298  |  |
| Earnings per share after full dilution                   | 0.00       | -0.02      | 0.01        | -0.01       | 0.00        |  |
| Number of shares after full dilution, average            | 32 338 098 | 29 760 990 | 32 338 098  | 29 742 823  | 30 176 883  |  |
| Number of shares after full dilution, balance sheet date | 32 338 098 | 29 760 990 | 32 338 098  | 29 760 990  | 32 338 098  |  |



# Parent company balance sheet (SEK)

| Assets                                    | Sep 30 2022 | Sep 30 2021 | Dec 31 2021 |
|---|-------------|-------------|-------------|
| Intangible assets                         |             |             |             |
| Capitalized expenses for development work | 0           | 1 288       | 756         |
| Total intangible fixed assets             | 0           | 1 288       | 756         |
| Tangible fixed assets                     |             |             |             |
| Equipment                                 | 56 111      | 15 400      | 10 827      |
| Total tangible fixed assets               | 56 111      | 15 400      | 10 827      |
| Financial assets                          |             |             |             |
| Participations in group companies         | 91 973 208  | 60 513 811  | 92 343 208  |
| Receivables from group companies          | 19 248 884  | 24 561 552  | 0           |
| Total financial assets                    | 111 222 092 | 85 075 363  | 92 343 208  |
| Total fixed assets                        | 111 278 203 | 85 092 051  | 92 354 791  |
| Current assets                            |             |             |             |
| Current receivables                       |             |             |             |
| Account receivables                       | 6 062 463   | 840 872     | 771 340     |
| Receivables from group companies          | 101 664     | 0           | 0           |
| Other receivables                         | 1 493 046   | 85 631      | 372 859     |
| Prepayments and accrued income            | 1 039 050   | 1 667 975   | 1 193 027   |
| Total current receivables                 | 8 696 223   | 2 594 478   | 2 337 226   |
| Cash and bank balances                    |             |             |             |
| Cash and bank balances                    | 10 655 507  | 5 531 185   | 32 560 241  |
| Total cash and bank balances              | 10 655 507  | 5 531 185   | 32 560 241  |
| Total current assets                      | 19 351 730  | 8 125 663   | 34 897 467  |
| Total assets                              | 130 629 933 | 93 217 714  | 127 252 258 |



# Parent company balance sheet (SEK)

| Equity and liabilites                      | Sep 30 2022 | Sep 30 2021 | Dec 31 2021 |
|--|-------------|-------------|-------------|
| Equity                                     |             |             |             |
|  |             |             |             |
| Restricted equity                          |             |             |             |
| Share capital                              | 1 446 070   | 1 304 017   | 1 422 564   |
| Fund development expenses                  | 0           | 1 288       | 756         |
| Total restricted equity                    | 1 446 070   | 1 305 305   | 1 423 320   |
| Unrestricted equity                        |             |             |             |
| Profit brought forward                     | 126 118 939 | 62 472 250  | 121 717 727 |
| Profit or loss for the period/year         | 459 379     | -375 269    | -139 039    |
| Total unrestriced equity                   | 126 578 318 | 62 096 981  | 121 578 688 |
| iotal unrestriced equity                   | 120 376 316 | 02 090 98 1 | 121 376 006 |
| Total equity                               | 128 024 388 | 63 402 286  | 123 002 008 |
|  |             |             |             |
| Current liabilities                        |             |             |             |
| Accounts payable                           | 324 097     | 325 015     | 631 360     |
| Liabilities to group companies             | 0           | 283 336     | 283 336     |
| Other current interest-bearing liabilities | 0           | 25 000 000  | 0           |
| Other liabilities                          | 302 169     | 868 334     | 1 116 875   |
| Accrued expenses and accrued income        | 1 979 279   | 3 338 743   | 2 218 679   |
| Total current liabilities                  | 2 605 545   | 29 815 428  | 4 250 250   |
|  |             |             |             |
| Total equity and liabilities               | 130 629 933 | 93 217 714  | 127 252 258 |
|  |             |             |             |
| Key Figures                                |             |             |             |
| Equity-assets-ratio                        | 98.0%       | 68.0%       | 96.7%       |
| Debt-to-equity ratio                       | 0.0%        | 39.4%       | 0.0         |
| Interest-bearing net debt                  | n/a         | 19 468 815  | n/a         |

# Changes in parent company equity (SEK)

|                                    | Q3 2022     | Q3 2021    | Q1-Q3 2022  | Q1-Q3 2021 | 2021        |
|------------------------------------|-------------|------------|-------------|------------|-------------|
| Equity at beginning of period/year | 127 984 988 | 64 013 463 | 123 002 008 | 63 667 464 | 63 667 464  |
| Share issues                       | 0           | 0          | 4 599 000   | 0          | 64 427 700  |
| Issue costs                        | -35 999     | 0          | -35 999     | 0          | -5 064 208  |
| Warrant premiums                   | 0           | 0          | 0           | 110 091    | 110 091     |
| Profit or loss for the period/year | 75 399      | -611 177   | 459 379     | -375 269   | -139 039    |
| Equity at end of period /year      | 128 024 388 | 63 402 286 | 128 024 388 | 63 402 286 | 123 002 008 |



# Parent company cash flow statement (SEK)

|   | Q3 2022    | Q3 2021    | Q1-Q3 2022  | Q1-Q3 2021  | 2021        |
|---|------------|------------|-------------|-------------|-------------|
| Operating activities                                  |            |            |             |             |             |
| Operating profit or loss                              | -82 570    | 22 946     | 127 360     | 532 313     | 826 371     |
| Adjustments for non-cash intems                       | 4 972      | 11 328     | 15 673      | 26 992      | 32 097      |
| Interest received etc.                                | 214 425    | 422 758    | 341 205     | 731 453     | 1 272 652   |
| Interest paid   | -2         | -455 233   | -2 516      | -1 072 454  | -1 668 399  |
| Income tax paid                                       | 0          | 0          | 0           | 0           | 0           |
| Cash flow from operating activities before            |            |            |             |             |             |
| changes in working capital                            | 136 825    | 1 799      | 481 722     | 218 304     | 462 721     |
| Cash flow from changes in working capital             |            |            |             |             |             |
| Decrease(+)/increase(-) in receivables                | -6 598 033 | -756 635   | -6 257 333  | 1 528 055   | 1 785 307   |
| Decrease(-)/increase(+) in current liabilities        | -1 107 752 | -210 166   | -1 361 369  | -576 710    | -1 141 888  |
| Cash flow from operating activities                   | -7 568 960 | -965 002   | -7 136 980  | 1 169 649   | 1 106 140   |
|   |            |            |             |             |             |
| Investing activities                                  |            |            |             |             |             |
| Investmetn in equipment                               | 0          | 0          | -60 202     | 0           | 0           |
| Acquisition of shares in subsidiaries                 | 0          | 0          | 0           | -25 000     | -25 000     |
| Repayment shereholder contributions                   | 0          | 0          | 370 000     | 0           | 0           |
| Loans provided to group companies                     | -332 271   | -9 140 287 | -19 633 884 | -28 478 216 | -35 745 861 |
| Change in cash deposits                               | 0          | 4 900      | 0           | 4 900       | 4 900       |
| Cash flow from investing activities                   | -332 271   | -9 135 387 | -19 324 086 | -28 498 316 | -35 765 961 |
| Financing activities                                  |            |            |             |             |             |
| Share issue   | 326 279    | 0          | 4 563 002   | 0           | 59 363 492  |
| Loans from shareholders                               | 0          | 15 000 000 | 0           | 25 000 000  | 0           |
| Cook flow from financing activities                   | 226 270    | 45.000.000 | 4.552.002   | 25 000 000  | F0 363 403  |
| Cash flow from financing activities                   | 326 279    | 15 000 000 | 4 563 002   | 25 000 000  | 59 363 492  |
| Change in cash and cash equivalents                   | -7 574 952 | 4 899 611  | -21 898 064 | -2 328 667  | 24 703 671  |
| Cash and cash equivalents at beginning of period/year | 18 286 913 | 623 222    | 32 560 241  | 7 816 432   | 7 816 432   |
| Exchange rate difference in cash and cash equivalents | -56 454    | 8 352      | -6 670      | 43 420      | 40 138      |
| Cash and cash equivalents at end of period/year       | 10 655 507 | 5 531 185  | 10 655 507  | 5 531 185   | 32 560 241  |

