



crunchfish 

**YEAR-END REPORT**

**2021**





# ***FROM PRODUCTS TO PLATFORMS***

CEO JOACHIM SAMUELSSON

Crunchfish pursues product leadership by producing a continuous stream of state-of-the-art products. 2021 was a tremendous year as we managed to transform the products in our business areas Digital Cash and Gesture Interaction into platforms. As platforms are so much more versatile than products, it makes us more adaptable and destined for success. Like Charles Darwin, we believe that the one most responsive to change wins.

Crunchfish creates an environment that encourages people to bring ideas into the company and, just as important, we listen to and consider these ideas, however unconventional and regardless of the source. "Not invented here" is not a part of our vocabulary. We continually scan the landscape for new product opportunities; where others see threats, we see opportunity and rush to capitalize on it. We avoid bureaucracy at all costs as it slows the commercialization of our ideas.

## **Digital Cash**

The market response to the Digital Cash platform has been overwhelming. Digital Cash *online* provides key benefits such as payment availability and load balancing to banks, mobile operators, or payment services. It is also the natural starting point for any implementation as Digital Cash *offline* is integrated with Digital Cash *online*.

Another important milestone in Q4 was the patent grant of Digital Cash *offline*. This pushed our thinking and resulted in two new patent applications related to Digital Cash *online*. I am also very pleased with the clean International Preliminary Report on Patentability of our original Digital Cash patent application. This indicates more Digital Cash patent grants in the future as applications are all based on the same core principles.

## **Gesture Interaction**

Our speed of implementation is extremely impressive in the area of Gesture Interaction. We have designed a machine learning engine able to tackle any computer vision problem. We came into the year with a XR-Skeleton product and have

evolved it to become a state-of-the-art platform that provides gesture recognition on any data stream, regardless of data format or whether the device has a single or dual camera sensors.

In Q4 we completed the patent portfolio in Gesture Interaction by receiving a European grant of the 12th patented innovation. This was a particularly important patent as it protects a smart way of locking and unlocking of AR/VR devices.

## **Webinars**

We felt that we had so much to communicate that we needed to create a new concept of how to do it. It became the Survival of the fittest webinar series that is held every Friday at 08.00 CET / 12.30 IST. The webinars always have three sessions of 10-20 minutes each. First a presentation, followed by moderator led Q&A and open forum with a panel. The topics have a four-week cycle. Digital Cash related webinars bi-weekly interleaved with either a Gesture Interaction or a Crunchfish oriented webinar. Happy about the interaction and great turn-out so far. More than half of the participants are from India.

I want to end by welcoming Johan Wester to moderate these webinars from February onwards and by thanking Anna Boström for her services with us as CMO as she has decided to take a role as CEO of a marketing firm instead.





**SIGNIFICANT NEWS  
IN Q4 AND AFTER  
YEAR-END 2021**



## **Crunchfish group**

Crunchfish Group CEO Joachim Samuelsson **presented the company** at Västra Hamnen Corporate Finance's Investor Day. CEO Joachim Samuelsson focused on how Crunchfish is responsive to change in the two fast-moving industries of digital payments and computer vision. In the presentation, Crunchfish CEO Joachim Samuelsson also gives insight into how Digital Cash applies to instant payments and CBDC.

In October 2021, Crunchfish **carried out a successful rights issue**. The rights issue was subscribed to 131 percent, and Crunchfish was provided SEK 64 million before issue costs. In connection with the rights issue, warrants of series TO9 were issued to the subscribers. Upon full exercise of all warrants of series TO9, Crunchfish may be provided an additional capital injection of up to approximately SEK 64 million. The exercise period for the warrants of series TO9 is December 5, 2022 until December 19, 2022.

## **Digital Cash**

Crunchfish **wrote down the share value of Blippit AB** in Crunchfish balance sheet to zero. Crunchfish continues to see potential in Blippit, but mainly as an integral part of Crunchfish Digital Cash platform. Hence, sales of the Blippit app terminal will not have a dedicated focus going forward, but offered as an add-on product that integrate mobile apps with POS terminals.

**Crunchfish met Finwire for an interview.** The Finwire interview of Crunchfish Group CEO Joachim Samuelsson is on the topic of Crunchfish Digital Cash – Future of Payments.

**Crunchfish received an International Preliminary Report on Patentability (IPRP)** in Chapter II of the Patent Cooperation Treaty (PCT) for its initial Digital Cash patent application.

Crunchfish announced a **patent-pending architecture of Digital Cash Wallets**. In addition to Crunchfish's original Digital Cash Wallet offline, that is integrated in a mobile app, an architecture spanning from Core Banking Systems to Digital Cash Wallets either online or offline, in mobile apps or on non-mobile devices is presented. This provides the foundation of Crunchfish's ambition to take a global leadership position within digital payments. The Digital Cash Wallets online and in mobile apps are already ready for shipment.

Crunchfish **announced a Digital Cash patent** as the company receives Notice of Allowance from the Swedish Patent Office (PRV) that a patent regarding interoperable offline payments will be granted. The patent protects internationally interoperable offline payments using a global root certificate.

**Crunchfish patented inclusive payments with privacy and interoperability** using Digital Cash. This patent application extends the scope of Digital Cash from offline to online usage, providing commercial e-wallets and CBDC implementations with easier onboarding, improved payment integrity and interoperability.

**Crunchfish expanded Digital Cash to Southeast Asia.** Crunchfish and V-Key strengthen their partnership and target Southeast Asia for Digital Cash, as the markets together are the world's fastest growing region for e-Wallets. Crunchfish will benefit from V-Key's strong position and local offices throughout Southeast Asia.



# Gesture Interaction

Finwire interviewed Joakim Nydemark, CEO of Crunchfish Gesture Interaction on the topic of deeply intuitive gestures.

Crunchfish announced 12th Gesture Interaction patent as the company receives an Intention to Grant from the European Patent Office (EPO) regarding gesture interaction with a physical or virtual display to type PIN codes or passwords in a unique way every time. The patent protects scrambling the keypad or display to ensure different touchless interaction patterns every time PIN codes or passwords are entered to lock or unlock the wearable.

Crunchfish signed development agreement with a customer in Asia Pacific to develop a Proof-of-Concept (POC) with Crunchfish's latest gesture technology. Crunchfish will work together with the customer to develop a POC that enables interaction in a car using hand gestures.

## Webinars

The webinar on **Crunchfish Skeleton platform** was the sixth of the Survival of the fittest webinar series. After a presentation by Crunchfish Gesture Interaction CEO Joakim Nydemark, Johan Wester moderated a Q&A session and open forum also including Daniel Milesson, R&D Director of Crunchfish Gesture Interaction and Joachim Samuelsson, Group CEO of Crunchfish in a panel.

The **webinar on Crunchfish Digital Cash for CBDC** (Central Bank Digital Currency) was the fifth of the **Survival of the fittest webinar series**. After a presentation by Crunchfish group CEO Joachim Samuelsson, Johan Wester moderated a Q&A session and open forum with Magnus Lageson, CPO of Crunchfish Digital Cash, Gagan Kochar, Senior Business Developer India at Crunchfish Digital Cash and Joachim Samuelsson in a panel.

The **webinar on Crunchfish Equity Analysis** was the fourth of the **Survival of the fittest webinar series**. After the presentation, a panel of Crunchfish CEO Joachim Samuelsson and IR Manager Erik Berggren discussed the analysis and the valuation model, as well as answered questions from the audience.

The **webinar on Digital Cash benefits** was the third session of the **Survival of the fittest series**. After a presentation by Crunchfish group CEO Joachim Samuelsson there was a Q&A session with Magnus Lageson, CPO of Crunchfish Digital Cash, Vijay Raghunathan, Head of India at Crunchfish Digital Cash and Joachim Samuelsson in a panel.

Crunchfish develops AI technology for gesture interaction with exceptional performance, optimized for augmented and virtual reality (AR/VR), automotive and the next generation digital interfaces. An **introduction to Gesture Interaction** was the topic of the 2nd session of the Survival of the fittest webinar series on January 14th, 2022.

Crunchfish Digital Cash is the future of payments on any payment form factor – mobiles, web, cards and wearables, regardless of payment rail – Instant, EMV, CBDC and crypto. Crunchfish Digital Cash platform was the topic of the **grand premiere of the Survival of the fittest webinar series** on January 7th, 2022.

Crunchfish launched the **webinar series Survival of the fittest**, that will air every Friday at 8 am CET during 2022. The first episode was held on January 7th, 2022. The webinars always start with a short topic presentation, followed by Q&A and co-creation between the audience and a panel.



# ***DIGITAL*** ***CASH***



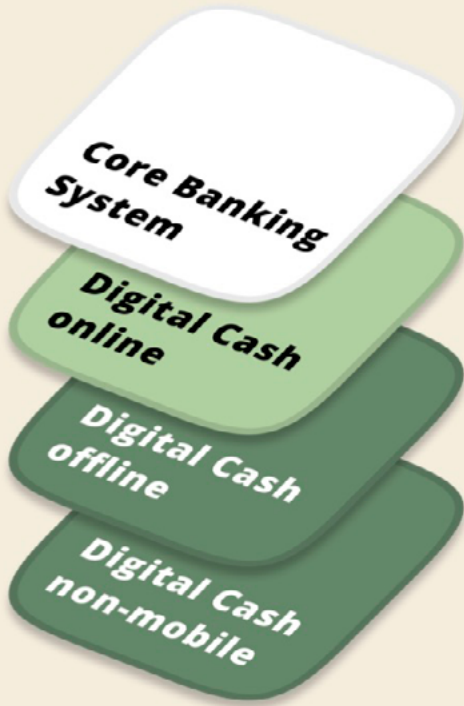
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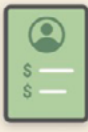
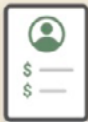
# Digital Cash turnaround in Q4

Crunchfish has made a complete turnaround within Digital Cash in Q4. From Digital Cash *offline* product to a Digital Cash platform spanning from Core Banking Systems via Digital Cash *online* to Digital Cash *offline*, in mobile apps or on non-mobile devices, such as cards and wearables. This provides the foundation of Crunchfish's bold ambition to take a global leadership position within digital payments. Digital Cash *online* in the backend and Digital Cash *offline* in mobile apps are ready for shipment.

## 2021 DIGITAL CASH PRODUCT



## 2022 DIGITAL CASH PLATFORM







"Crunchfish Digital Cash platform provides the foundation of Crunchfish's ambition to take a global leadership position within digital payments."

**Joachim Samuelsson, CEO of Crunchfish**

Digital Cash for non-mobile devices will be developed during 2022. Top-up and payment using Digital Cash in non-mobile devices are done by tapping a mobile device to interact with Digital Cash in a mobile app. A **patent-pending** application allows this interaction to occur completely offline.



Crunchfish Digital Cash is a modular architecture for payments. An account reservation in the Core Banking System provides a balance in the Digital Cash **online**, which in turn may be distributed to Digital Cash **offline** in mobile apps. This balance may be further distributed as Digital Cash to non-mobile device. This provides the global payments market with a complete architecture that works online as well as offline, on all kinds of bearer devices, and on all kinds of payment schemes such as Card, Instant, CBDC<sup>1</sup> as well as Crypto. Crunchfish Digital Cash - Future of Payments.

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<sup>1</sup> Central Bank Digital Currency



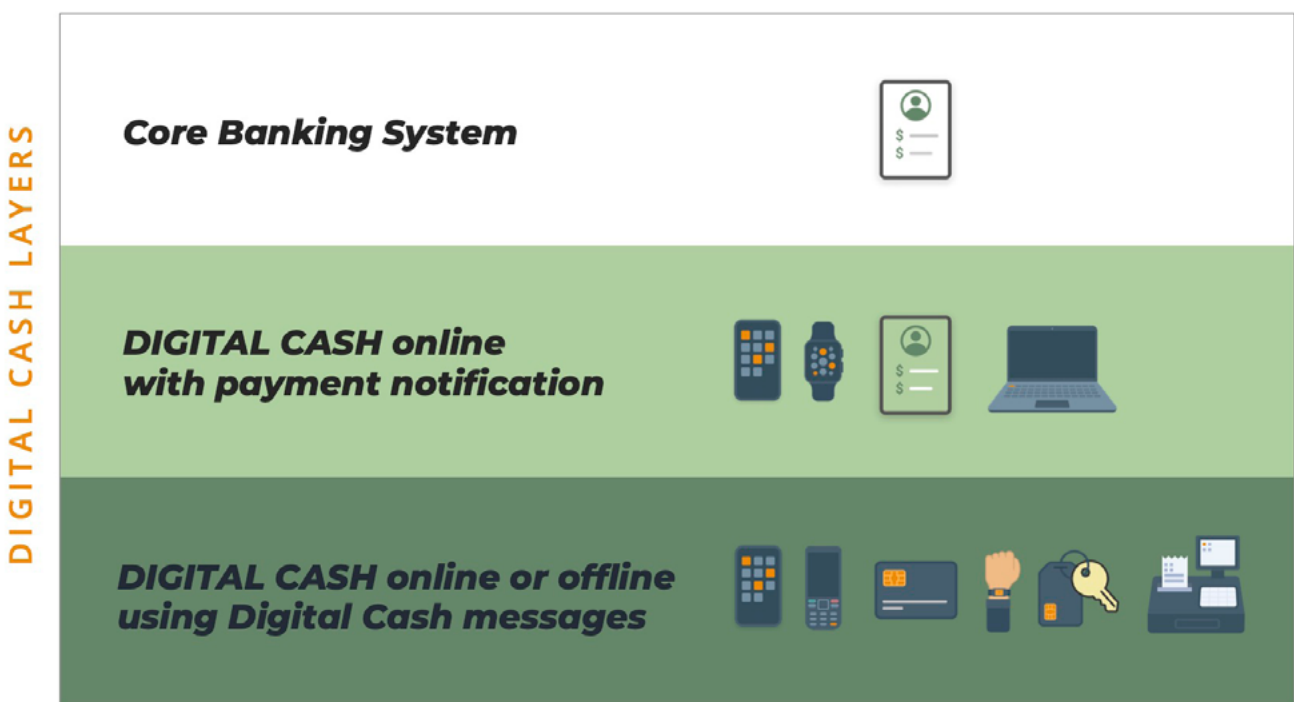
# Digital Cash platform

Crunchfish has developed a Digital Cash platform that essentially solve for two problems. The first is the more common problem with service disruption and congestion in the core banking system, when the bank's clients can't accept or make payments. Crunchfish addresses that with Digital Cash *online*. The other problem Digital Cash addresses is when the user is offline, lacking internet connectivity. What is needed in such cases is Digital Cash *offline*, a means of storing and transferring Digital Cash in an offline mode.

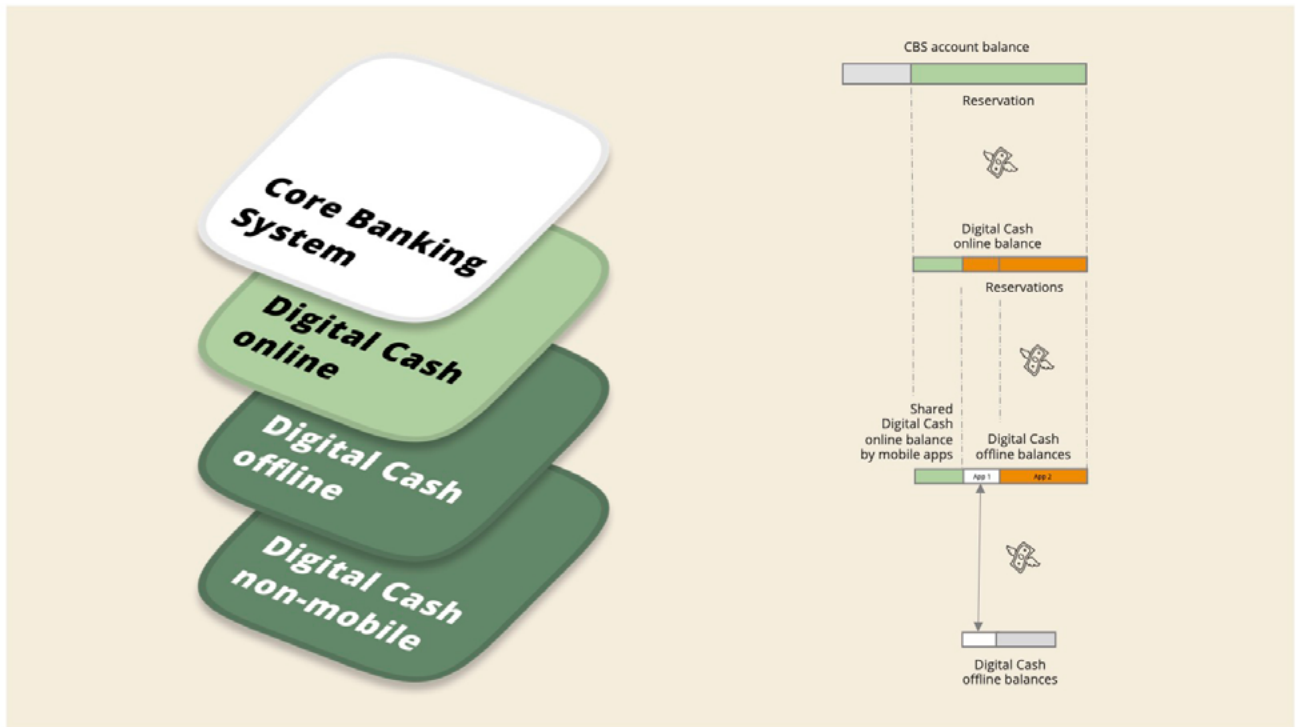
## Digital Cash *online*

The first is the more common problem with service disruption and congestion in the core banking system, when the bank's clients can't accept or make payments. Crunchfish addresses that with Digital Cash *online*. That's valuable because it means we can reduce the reliance on archaic bank architecture, which isn't built to handle modern transaction volumes and is often

on legacy infrastructure. Banks do not have to design for peak demand, as Digital Cash *online* helps them to load balance. Essentially, Digital Cash *online* means that payments can carry on as normal even if the Core Banking System is down, since transactions can be settled at a later point when the connection is restored.







### Digital Cash offline

With Digital Cash *offline* on the other hand the user has reserved a portion of the Digital Cash *online* to be used even if there is no data connectivity. The key product here is the patented Digital Cash *offline* application residing in software-based secure environments in payment apps on a smartphone. With a smartphone a user can seamlessly interact with feature phones, cards, wearables, other mobiles or cash registers.

The Digital Cash exchange and payments with feature phones, cards and waerables is a development focus of 2022.

### Digital Cash balances

Crunchfish has designed an architecture that reserves Digital Cash from the core banking system in a separate overlay server, either on premise or in the cloud. In turn, the Digital Cash *online* may be distributed as Digital Cash *offline* that may be handled securely in any type of bearer device, either in a mobile, on a card or a wearable. With Digital Cash *offline* a user can pay for things without having any connectivity.

Such a system is useful not only during blackouts. In many countries, internet connectivity is a scarce resource in rural areas, if it's available at all. In many parts of the world, mobile phones are widespread, but only with telecom coverage, rather than internet access. In such areas, Digital Cash is only usable if it does not rely on internet access to function.



# Digital Cash benefits

Crunchfish's go-to-market strategy with Digital Cash is not as a stand-alone payment service, but as a compliment to any and all Banks, Central Banks and Payment Services for their efforts of provide users with a great payment experience. Crunchfish Digital Cash adds a long range of desirable features to underlying Payment Services that makes them substantially better. Crunchfish Digital Cash may be described as being both a layer-1 as well as a layer-2 solution that optimizes the performance of any and all payment rails - Cards, Instant, CBDC or Crypto - by adding a multitude of desirable features.

## Layer-1 solution

Digital Cash as a layer-1 solution adds features to the Payment Service using the native security protocol of the payment service and it is always based on Digital Cash *online*. Essentially it is the split of payments into three distinct steps - Reserve, Pay and Settle - that does the trick. Digital Cash *online* as a layer-1 solution adds these critical utilities to payment services:

1. Payment availability even if the backend, e.g. Core Banking System, is temporarily down or congested.
2. Load balancing the backend.
3. Shared Digital Cash *online* balance across multiple payment apps and payment rails.

Digital Cash *online* as a layer-1 solution would be implemented by Banks for instance as a backend server facility that runs either on premise or in the cloud. The key is to provide an overlay function for any and all payment rails that insulates the fragile Core Banking System from the ever-increasing transaction volumes. Digital Cash *online* is that overlay

## Layer-2 solution

Crunchfish Digital Cash as a layer-2 solution are always based on Digital Cash messages, the secret sauce of Crunchfish's groundbreaking payment innovation. The Digital Cash messages introduces a separate security protocol that integrates with the underlying payment services. Crunchfish's proprietary layer-2 protocol is based on Public Key Infrastructure, PKI. A Digital Cash message may use either Digital Cash *online* or Digital Cash *offline*.

There is an abundance of desirable features that Digital Cash as a layer-2 solution adds to payment service. Please refer to the picture below outlining the benefits for online payment rails such as Cards and Instant, as well as for Crypto. For CBDC there are a comprehensive list of 20 desirable features of which 17 features are based on the patented Digital Cash messages that underpins Digital Cash as a layer-2 solution.

Digital Cash as a layer-2 solution would be implemented by the Banks as a customer driven feature as it is the customer that reserves Digital Cash for offline use and sends the Digital Cash messages as payments.



**DC for Online payment rails**

- Online Payment without backend
- Load balancing of backend
- Shared Digital Cash *online* balance across mobile apps and payment rails

- Offline payment without network
- Ease of use and smooth onboarding
- Cross-currency payments even offline
- Payment stability by redundancy

**DC for Cards**

- Generic dual Digital Cash service on cards
- Expansion by Digital Cash terminal apps

**DC for Instant**

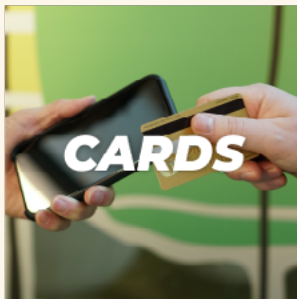
- Instant payment verification
- Service interoperability

**PAYMENT  
RAILS**

**Legacy**

**New**

**Online**



**Offline**



**DC for CRYPTO**

- Faster transactions
- Offline payment without network
- Instant payment verification
- Service interoperability

**DC online CBDC**

- Online Payment without backend
- Load balancing of backend
- Shared Digital Cash *online* balance

**DC offline for CBDC**

- Offline payment without network
- Secure authentication without OTP
- Cross-currency even offline

**DC online or offline using DC messages for CBDC**

- Service interoperability
- Ease of use
- Inclusive universal service
- Privacy within limits
- Smooth onboarding
- Instant payment verification
- Faster transactions
- Generic dual Digital Cash service on cards
- Digital Cash terminal apps
- OS agnostic
- Proximity interaction agnostic
- Payer device agnostic
- Payee terminal device agnostic
- Financial inclusion

# Digital Cash *online* accelerates market opportunities

The Digital Cash platform opens new business opportunities for Crunchfish. Whilst Digital Cash offline has mainly been targeted towards closed loop e-wallets, Digital Cash online is offered primarily to banks to increase payment availability and to load balance their Core Banking System.

Asia Pacific is the fastest growing payments market in the world, accounting for nearly half of the global payment industry. India is the shining star and transacts almost **twice the number of real-time transactions as China**. The great focus on digitization accelerates the growth of payments in the country.

United Payments Interface (UPI) is **India's real-time mobile payments platform**, developed by the National Payments Corporation of India (NPCI) and regulated by the Reserve Bank of India. UPI enables inter-bank transactions through mobile applications. It connects multiple bank accounts into a single mobile platform, allowing money transfers in real-time. As of December 2021, UPI had 282 banks connected and catered for **38,7 billion transactions during 2021**.

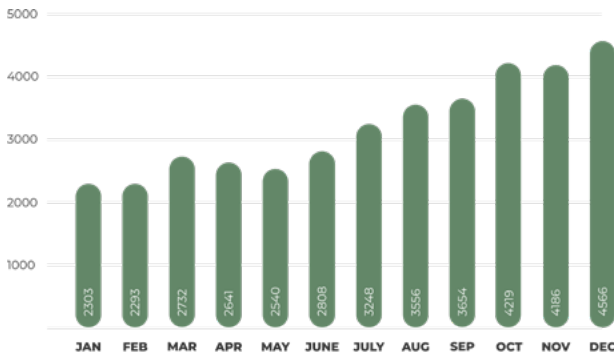
India represents a huge opportunity for Crunchfish. Crunchfish identified India as a focus market already in 2019 and is well

established through local representation. The Crunchfish India team consists of senior payment experts with a wide network of contacts and relations at the highest level within banks and payments service providers. The wider Digital Cash platform has allowed to reengage with all contacts in the market.

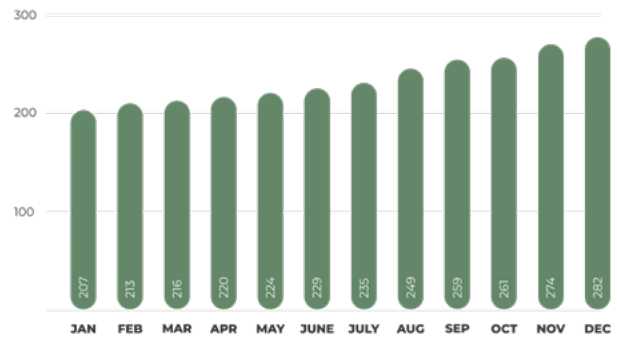
Tonetag is a key partner for Crunchfish. The companies are working together in a project with one of the major payment providers in India. The project will deliver a Digital Cash solution where payments in proximity are transferred with Tonetag's Ultrasound technology, creating a seamless user experience for both the payer and payee. First delivery to the customer will be for a Proof-of-Concept in the end of March. If successful, integration of the Digital Cash SDK in the payment provider's e-wallet will start during Q2.



### UPI transactions 2021 (in millions)



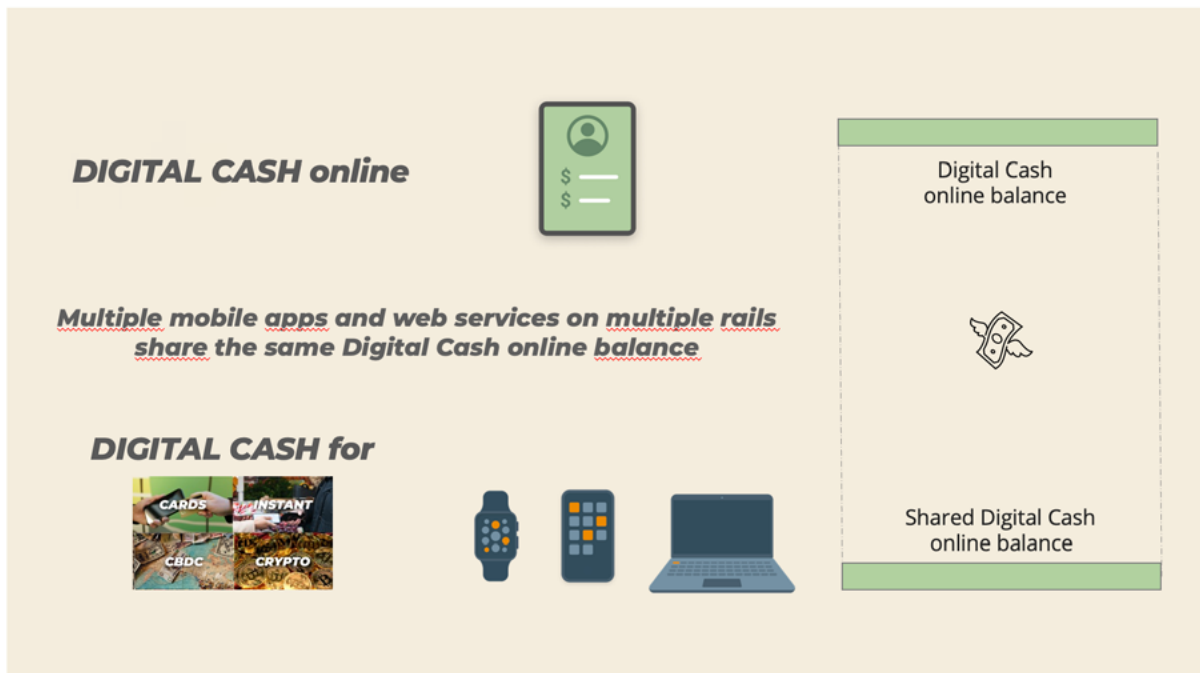
### Banks live on UPI 2021



To materialize the full potential of the Digital Cash platform towards the banking community globally, strategic partnerships with global players in the industry are key. The Digital Cash platform has been very well received in discussions with several global players involved with distribution, payment networks, system integration and value-adding solutions. In parallel with these partnership dialogues, Crunchfish has also direct engagements with major banks in India.

Crunchfish continues the close collaboration with V-Key in Southeast Asia, both with the HQ in Singapore and the local sales and support offices in Vietnam, Indonesia, the Philippines, and Thailand. The co-operation has led to a first customer engagement in Vietnam. The customer is in the process of integrating Digital Cash offline into their mobile e-wallet for a Proof-of-Concept. To further fuel interest in South East Asia a webinar with a presentation from V-Key will be held February 18th in the webinar series Survival of the fittest.

### SHARED DIGITAL CASH ONLINE BALANCE





# ***GESTURE INTERACTION***





# Deeply intuitive gestures

Crunchfish develops AI technology for gesture control with exceptional performance, optimized for augmented and virtual reality (AR/VR), automotive and the next generation digital interfaces. During 2021 the work to expand the offering has continued. With the flagship product XR Skeleton, a platform based on Neural Networks was shaped, that has made it possible to develop several new solutions in a short timeframe. Further, some exciting agreements were finalized during the fourth quarter. One was a Proof of Concept (POC) development agreement – signed with a company in Asia Pacific - where Crunchfish’s PS Skeleton was integrated with their solution to execute in a car environment. Another was a license agreement signed between Crunchfish Gesture Interaction and Crunchfish Digital Cash to enable Crunchfish’s Digital Cash solution with touchless authentication when integrated in eg. wearable devices.

## Introduction to Gesture Interaction

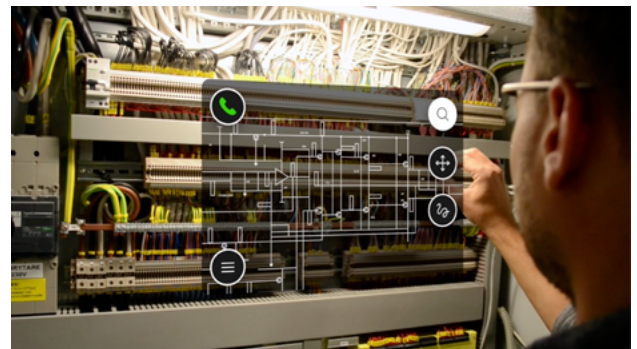
Gesture interaction is about controlling electronic devices without touching a display or using any physical buttons. By using a camera sensor and hardware with processing power, Crunchfish's gesture control technology can enable interaction from a distance using hand and body detection and tracking.



Touchless hand gesture can be divided in different categories that target different usecases and chipsets.

Pose is when a system can detect a specific hand pose such as a v-sign or a thumbs-up. When a pose is detected, a certain event in a device can be triggered eg. "Go to the home screen".

How a pose is connected to an event is generic and is most often decided by the application developer.



Tracking is the next level of interaction with a system that can both track a hand and detect a pose. This enables solutions like using a mouse on a computer. The system tracks one point on the hand and movement of the hand controls a pointer on a (physical or virtual) screen. A pose can then trigger an event at a certain spot on the screen eg. a virtual button in a pair of AR glasses.

# Skeleton platform



Skeleton is the technically most advanced solution that also enables the most complex gestures with 21 tracked points on each hand. The points represent fingertips and joints, and each point is tracked in 3 dimensions with millimeter accuracy. Tracking of 21 individual points enables a variety of interaction possibilities where poses easily can be added and each point on the hand is a possible touchpoint for virtual objects. This architecture can also be applied as skeleton body detection and tracking.

XR Skeleton is Crunchfish's 4th generation gesture control product, where each generation still is part of Crunchfish's offering and target different usecases and hardware. The first product – Selfie A3D – is based on traditional image analysis and target mobile devices and tablets for use of pose-interaction.

From 2015 the priority was AR/VR devices and the following products were trained and optimized for different AR/VR devices. For every new product, the technology became more and more based on neural networks and XR Skeleton is based only on neural networks. With Crunchfish's inhouse developed tools and processes for eg. generating training data, XR Skeleton became the foundation of the XR Skeleton platform.

When XR Skeleton was launched, it was the first product of a completely new way of developing gesture technology. XR Skeleton contains a software architecture that enables a skeletal image of each hand represented by 21 points. With all image data generated inhouse, several software tools developed inhouse and through the versatility of Crunchfish's neural networks, a platform was created based on XR Skeleton.





## Skeleton platform

The platform has during 2021 been the foundation to develop several new solutions to fit specific usecases and contexts. Full body detection was enabled by applying initially 21 points and then 34 points from head to toe, creating a full body solution called FB Skeleton (still under development). By combining hand tracking and body tracking, another solution was then developed – PS Skeleton. This solution, that can be used for public screen interaction, is also applicable in automotive usecases as well as gesture interaction with smartTVs. PS Skeleton makes it possible to keep track of the number of people in front of the screen, super quickly detect hands and also provide information about body positions and hand poses.

Crunchfish's skeleton platform and sharp development team, not only enable a wide range of new solution areas. It also shows a technical flexibility of the platform for advanced

gesture control. The new FB Skeleton solution combined with XR and PS Skeleton, generates information in three steps:

- 1) People are detected.
- 2) Bodies are tracked.
- 3) Hands are detected and tracked.

During Q4 the development of XR Skeleton Stereo has continued, where 2 camera sensors are used in parallel to enable a true 3-dimensional camera stream as well as a large interaction space due to the sensors' wide angles.

Another project in Q4 was to enable the use of IR (InfraRed) sensors with Crunchfish PS Skeleton solution that is targeting environments like airplanes, cars and trucks.

# New use cases and market segments

## **AR/VR**

AR smartglasses are moving from monocular displays and one camera sensor to more advanced displays and dual-camera configurations. Especially for consumer AR glasses formfactor, stereo camera configuration will be mandatory since it enables 2-hand interaction and a more immersive experience for the user. The ongoing development of Crunchfish XR Skeleton Stereo is an important part of the R&D work where support for dual sensors and two hands tracking are mandatory features to meet the requirements from the market.

## **Automotive**

Automotive is a new market segment where the interest of hand & body detection and tracking is increasing rapidly. This is driven by the fast change to display interaction in vehicles as well as further strengthening demands on safety. To comply with the in-car environment support for infrared (IR) camera sensor has been added to Crunchfish's PS Skeleton and enable a competitive offering towards the automotive industry. Adding body tracking provides yet another dimension and enables detection of passengers.

To help prevent accidents, vehicle manufacturers are developing prevention systems that monitor driver state and issue warnings when people show signs of dangerous behavior.

These advanced safety systems include camera-based driver monitoring systems (DMSs) to detect inattention or drowsiness of the driver, and to issue a warning if driver distraction is identified.

In EU, DMSs will be mandatory in all new vehicles - including buses, trucks, and dangerous goods carriers. The new regulations will be gradually implemented over the course of four years, starting in 2022 with all new type-approved cars with a certain level of autonomous driving capability according to the EU Council of Ministers general safety regulation.

In the next update of Euro NCAP's safety measuring systems, driver monitoring will likely be included as one of the primary safety features required for any car model looking to receive the sought-after five-star safety rating – setting the standard for all car OEMs operating on the European market.

To meet all requirements on future cars and trucks, new technologies are needed. Hand, body and object tracking will be crucial to detect pets, children, driver's as well as passengers' behavior in a vehicle, which open up a huge opportunity for Crunchfish's technology.





“We are very excited about this Proof-of-Concept project since it opens up a new business segment for our gesture interaction technology. The global AI technology industry is changing rapidly, which requires new innovative solutions.”

**- Joakim Nydemark, CEO of Crunchfish Gesture Interaction**

With the solutions PS Skeleton and FB Skeleton optimised for RGB as well as IR camera sensors, Crunchfish is very well suited to take a role in the quick change of the automotive industry to secure complete DMSs.

Touchless gestures to interact with infotainment systems both in the front and rear seat is another exciting usecase. With displays in the rear seat becoming more common the requirements will show a need for touchless gesture control since children for instance will not be able to reach the display when seated.

### **Public screens**

Market interest related to the business segment Public screens continue, even though there are not yet any commercial installations in place. Solutions in this segment may include screens at shopping malls and train stations as well as at offices and most often include body tracking. COVID has had a positive impact on this segment where many people now want to avoid touchscreens due to risk of infection. Still, Crunchfish see a lot more potential in the business segments AR/VR and automotive, why sales and marketing efforts primarily target these categories.

# Deals and development

An exciting new project was signed with a company in Asia Pacific, to develop a Proof-of-Concept (POC) with Crunchfish's latest gesture technology. The project was executed during Q4 2021 and early Q1 2022 and the goal was to show it at the Consumer Electronic Show (CES) in Las Vegas early January. Unfortunately, COVID made it impossible to showcase the POC at CES, but instead it will be demonstrated to our partner's customers in the automotive industry during the spring 2022.

The customer is based in Asia Pacific and develops solutions for the AI technology industry with customers all over the world. To ensure a good technology fit and a market interest, the parties have worked together to develop a POC that enables interaction in a car using body tracking and hand gestures. Both companies' technologies have been built together into a joint solution, where Crunchfish was able to charge for time and materials in the project.



Crunchfish Gesture Interaction signed a license agreement with Crunchfish Digital Cash for XR Skeleton to support touchless payment authentication in wearables. The right to use Crunchfish's latest patent related to PIN-code input was also part of the agreement to enable Crunchfish's Digital Cash solution with touchless authentication when executing payments with wearables and similar devices.

There are a lot of activities within Augmented Reality in general, where larger consumer electronics companies as well as smaller niche AR-glass providers research and develop new AR products. Lenovo has earlier signed a commercial agreement to use Crunchfish's gesture control software in their DaystAR New G2 AR glasses. Lenovo will integrate Crunchfish's software to enable touchless navigation in their native AR applications. Another example is INMO Technology Ltd in China who also has signed a commercial agreement with Crunchfish to integrate gesture control software in their new commercial AR glasses.

Common for most of the companies developing AR glasses is the interest for the Stereo camera setting. Early pre-releases have been made during the quarter of Crunchfish XR Skeleton Stereo to a few selected partners and the feedback is positive.

Also, the market's interest related gesture interaction in smart TVs and infotainment screens continue and product evaluations targeting hand tracking from a distance are ongoing for projects related to automotive.

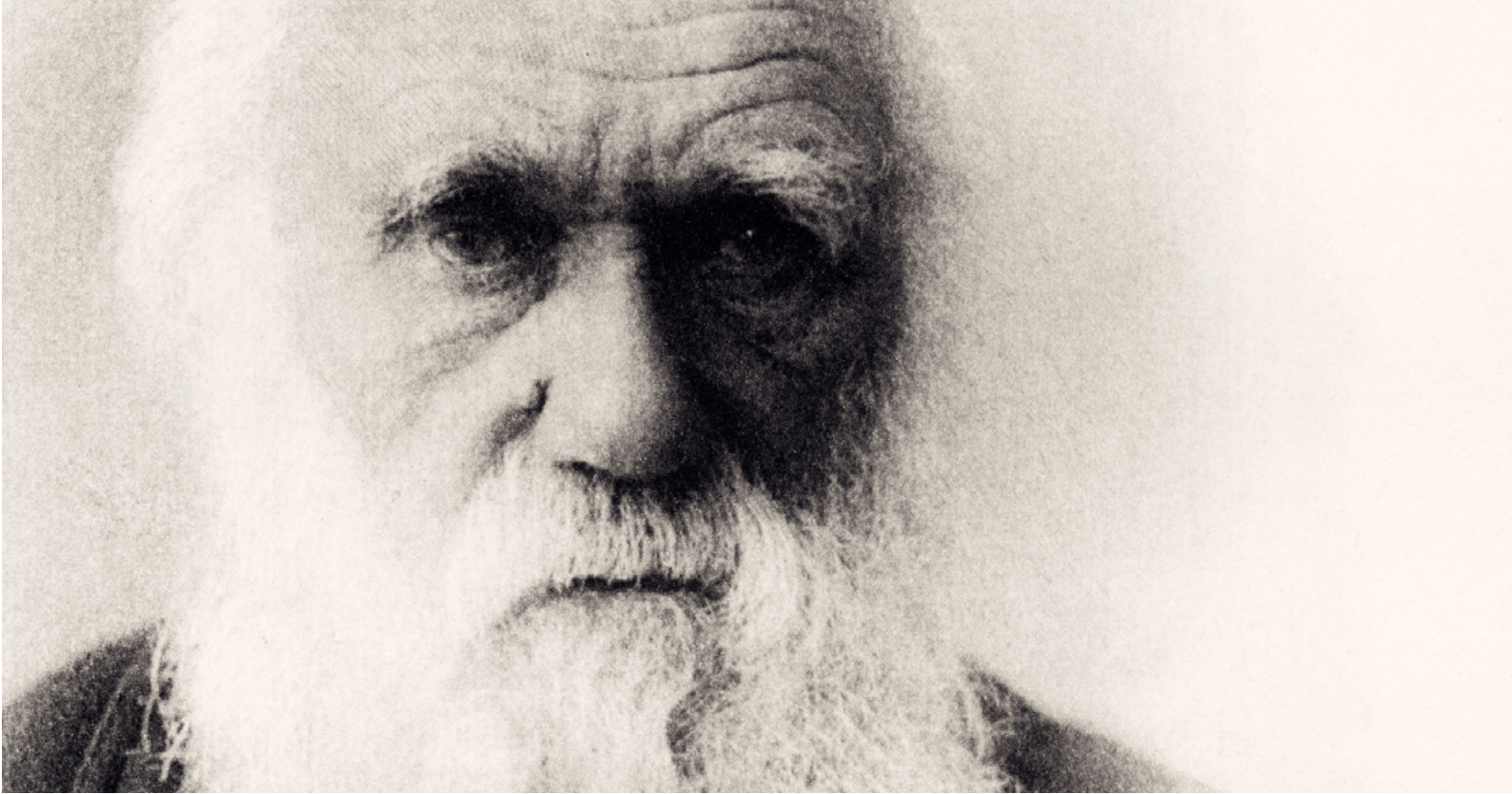




## Development focus

Crunchfish must ensure support for consumer products of the future that will have better hardware and demand more advanced 3D interaction than before. Support for multiple simultaneous camera sensors (stereo camera setting), to ensure precision in all three dimensions, as well as two-handed gestures will be important areas to meet all types of hardware configurations. By combining the next generation of neural networks with huge amounts of data, simulated backgrounds and different shadowing&lighting conditions, XR Skeleton will meet the toughest requirements from customers and end-users. A new pre-release of XR Skeleton Stereo was made in Q4 and the development will continue during the coming quarters.

The development of a combined solutions including XR Skeleton, PS Skeleton and the full body solution - FB Skeleton - will continue to create the conditions to reach new business segments such as automotive and smart TV. Also, the support for other types of camera sensors like Infrared will continue to be important to enable more usecases.



# ***SURVIVAL OF THE FITTEST WEBINARS***

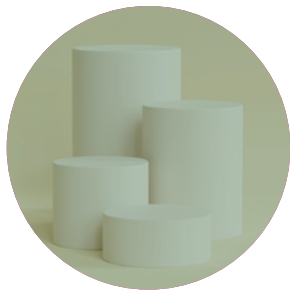
Crunchfish proudly presents a new webinar series – Survival of the fittest – on Fridays at 08:00 CET / 12:30 IST with grand premiere on January 7th, 2022. The webinars will be live and recorded, starting by a short presentation on pre-announced topic, followed by moderator led Q&A and open forum with a panel. Every second webinar will have a Digital Cash topic, interleaved by either a Gesture Interaction or Crunchfish topic.



From **February** onwards, the webinars will be moderated by Johan Wester, an entertainer known for the comedy show HippHipp.



## **Webinars**



**Digital Cash  
platform**



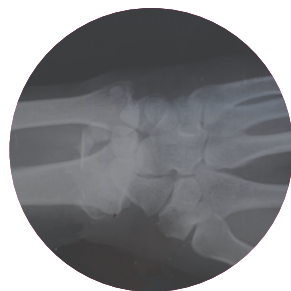
**Gesture Interaction  
introduction**



**Crunchfish  
Equity analysis**



**Digital Cash  
benefits**



**Gesture Interaction  
XR Skeleton**



**Digital Cash  
for CBDC**



# FINANCIALS



The Kite (*Milvus ictinus*).



# Financial year-end report

## Sales and earnings for the 4th quarter

Net sales amounted to SEK 883 (3,634) thousand for the fourth quarter and operating expenses amounted to SEK 19,208 (13,086) thousand. Operating expenses increased due to a loss in the associated company Blippit. EBITDA for the period amounted to SEK -12,421 (-3,737) thousand. Loss before tax for the fourth quarter amounted to SEK 14,779 (5,880) thousand and has been charged with amortization of intangible assets of SEK 1,704 (1,993) thousand and tangible fixed assets of SEK 80 (93) thousand.

In September 2018, the Company began a collaboration with ClearOn whereby Crunchfish and ClearOn formed the jointly owned company Blippit, with the aim of offering new digital opportunities for marketing products and making payments in stores. Blippit has acquired a right of use of the technology developed its subsidiary Crunchfish Digital Cash. Starting in September 2018, Crunchfish Digital Cash performs development services for Blippit to adapt the technology to the specific usage area.

Of the Group's net sales for the fourth quarter, SEK 270 thousand (1,506) relates to consulting fees invoiced to Blippit.

## Sales and earnings for the year 2021

Net sales amounted to SEK 3,957 (10,883) thousand for the year and operating expenses amounted to SEK 57,212 (48,420) thousand. Operating expenses increased due to the Group's investments in Digital Cash and due to the loss in the associated company Blippit. EBITDA for the year amounted to SEK -29,207 (-17,553) thousand. Loss before tax for the year amounted to SEK 38,468 (25,335) thousand and has been charged with amortization of intangible assets of SEK 7,343

(7,281) thousand and tangible fixed assets of SEK 318 (381) thousand.

Of the Group's net sales for the year, SEK 2,631 thousand (8,251) relates to consulting fees invoiced to Blippit.

## Investments

During the fourth quarter, the Group invested SEK 3,622 (3,085) thousand in intangible fixed assets and 0 (0) in tangible fixed assets. Investments in associated companies amounted to SEK 0 (1,000) thousand.

During the year, the Group invested SEK 14,342 (10,106) thousand in intangible fixed assets and 0 (39) in tangible fixed assets. Investments in associated companies amounted to SEK 1,500 (5,000) thousand.

## Liquidity and financing

At the end of the year the Group's cash and cash equivalents amounted to SEK 32,756 (8,668) thousand. Cash flow from operating activities during the fourth quarter amounted to SEK -3,966 (-3,136) thousand.

During October 2021, the company raised an additional SEK 59 million after issue costs in a new share issue.

## 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 December 31, 2021, the number of employees was 20 (23).

### **Risks and uncertainties**

A number of 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 2020, which can be found at [crunchfish.com](http://crunchfish.com).

### **Related party transactions**

In December 2020, Crunchfish AB entered into a financing agreement worth SEK 25 million with the Company's two largest shareholders, Crunchfish CEO Joachim Samuelsson, and Midroc Invest AB, represented by the Chairman of the Company's Board, Göran Linder. The financing consisted of a loan commitment of SEK 25 million that the Company could call off on one or more occasions within a term of 14 months from December 18, 2020 to February 17, 2022. A commitment fee of 4% per year was paid as compensation. The interest rate for credit used amounts to 8% per year. In the first quarter of 2021, credit of SEK 10 million was raised. In the third quarter of 2021, credit of SEK 15 million was raised. The loans were repaid in November 2021. The fourth quarter of 2021 has

been charged with expenses regarding commitment fees and interest of SEK 196 thousand. For the year 2021 commitment fees and interest of SEK 1,263 thousand has been paid.

### **Sales and earnings for the 4th quarter, parent company**

The parent company's net sales amounted to SEK 4,686 (5,769) thousand for the fourth quarter and operating expenses to amounted to SEK -4,890 (-6,254) thousand. EBITDA for the period amounted to SEK 299 (44) thousand. During the fourth 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 year 2021, parent company**

The parent company's net sales amounted to SEK 20,932 (16,199) thousand for the year and operating expenses to amounted to SEK -22,129 (-24,717) thousand. EBITDA for the year amounted to SEK 858 (-3,396) thousand. During the year, the parent company invested SEK 0 (606) thousand in intangible fixed assets and SEK 0 (0) thousand in tangible fixed assets.

Up to and including March 2020, the gesture control business was carried out in the parent company, and the reported sales consisted of income from royalties. On April 1, 2020, the gesture control operations were transferred to the wholly owned subsidiary Crunchfish Gesture Interaction AB, and from this date only company management and administrative staff are employed in the parent company. Reported sales in the parent company from April 1, 2020 consist of income from services rendered for management and administration of the Company's two subsidiaries.



## **The share**

There is one class of shares in Crunchfish. The share is listed at Nasdaq First North Growth Market under the symbol "CFISH". Per December 31, 2021, the number of shares in the company was 30 925 298 (28 348 190). The average number of shares during the fourth quarter of 2021 was 30 066 262 (28 348 190).

## **Warrants**

At Crunchfish AB's Extraordinary General Meeting on September 11, 2018, it was decided to introduce an incentive program for the company's management and other employees through a directed issue of warrants with the right to subscribe for new shares in the company. The directed issue comprised of 700,000 warrants of series 2018/2022, each with the right to subscribe for one (1) new share in the company at a price of SEK 10.92 per share between June 1–30, 2022. The warrants were issued to a wholly owned subsidiary and subsequently transferred to the recipients at a price of SEK 0.23 per warrant, which corresponded to the value of a warrant according to the Black & Scholes model. Of the 700,000 warrants, 620,000 have been transferred to the company's management and other employees as well as full-time consultants. After recalculation due to share issues in March 2019 and April 2020, holders of a warrant have the right to subscribe for 1.19 new shares in the company during the subscription period for each warrant at a subscription price of SEK 9.13.

At Crunchfish AB's Annual General Meeting on May 20, 2020, it was decided to supplement the aforementioned incentive program through a directed issue of warrants with the right to subscribe for new shares in the company to those in the company's management, and other employees, who does not previously hold warrants in the company. The directed issue comprised of 700,000 warrants of series 2020/2024, each with

the right to subscribe for one (1) new share in the company at a price of SEK 46.89 per share between June 1–30, 2024. The warrants were issued to a wholly owned subsidiary and then transferred to the recipients in three tranches at a price corresponding to the value of a warrant according to the Black & Scholes model. Of the 700,000 warrants, 675,000 have been transferred to the company's management and other employees as well as full-time consultants, and the remaining 25,000 warrants can be allocated up to and including the 2021 Annual General Meeting.

At Crunchfish AB's Annual General Meeting on May 19, 2021, a third directed issue of warrants with the right to subscribe for new shares in the company was decided, directed at those of the company's management, employees and other key persons, who do not previously hold warrants in the company. The directed issue comprised of 500,000 warrants of series 2021/2025, each with a right to subscribe for one (1) new share in the company at a price of SEK 182.40 per share, between June 1 and June 30, 2025. The warrants were issued to a wholly owned subsidiary for subsequent transfer to the recipients at a price corresponding to the value of a warrant according to the Black & Scholes model. The warrants can be allocated up to and including the 2022 Annual General Meeting. No warrants of this issue have yet been transferred. After recalculation due to share issues in November 2021, holders of a warrant have the right to subscribe for 1.015 new shares in the company during the subscription period for each warrant at a subscription price of SEK 179.79.

At Crunchfish AB's Extraordinary General Meeting on September 16, 2021, it was resolved to conduct a rights issue of units. The rights issue comprised of shares and warrants of series TO9. In total, there are 1 718 072 warrants of series TO9. One (1) warrant of series TO9 entitle the right to subscribe for one (1) new share in the Company, during the period from and including December 5, 2022 to and including December 19, 2022 against cash payment where the subscription price is set at 70 percent of the volume-weighted average price for the Company's share on Nasdaq First North Growth Market

during the period from and including November 16, 2022, to and including November 30, 2022, however, not more than SEK 37.50 and not less than the quota value of SEK 0.046. In the event that all warrants are fully exercised for subscription of new shares in the Company, the number of shares in the Company will increase with an additional 1,718,072 shares to a total of 32,643,370 shares and the share capital will increase by an additional SEK 79,031.312 to SEK 1,501,595.020.

## Shareholders in Crunchfish AB (publ) per year-end 2021

Shareholders	No. of shares	Proportion of votes and capital (%)
CEO Joachim Samuelsson incl. family and company holdings	7,500,000	24.25
Corespring Invest AB (Chairman Göran Linder)	5,668,837	18.33
Paul Cronholm (Founder & CTO)	1,093,800	3.54
Stephan Carlquist incl. company holdings	1,000,000	3.23
Mikael Kretz incl. family and company holdings	690,455	2.23
Håkan Paulsson incl. family and company holdings	639,189	2.07
Wilhelm Risberg	343,058	1.11
Claes Ohlsson incl. company holdings	342,088	1.11
Fredrik Lundgren	340,909	1.10
Granitor Invest AB	298,250	0.96
<b>Sum ten largest shareholders</b>	<b>17,916,585</b>	<b>57.94</b>
Other approx. 6 000 shareholders	13,008,713	42.06
<b>Total</b>	<b>30,925,298</b>	<b>100.00%</b>

## 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).

## Proposed disposition of earnings

The Board of Directors and CEO propose that no dividend shall be distributed for the financial year 2021.

## Annual General Meeting and Annual Report

The Annual General Meeting will be held on May 18th 2022, at 10:00 CET in Malmö. The Annual Report will be disclosed and available for download on the company's website three weeks before the AGM at the latest.

## 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

For further information, please contact:

Erik Berggren, IR Manager

ir@crunchfish.com

Crunchfish AB (publ)

Stora Varvsgatan 6A

211 19 Malmö

## 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, February 17, 2021

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 February 17, 2021.*



## Group income statement (SEK)

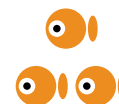
	Q4 2021	Q4 2020	2021	2020
<b>Operating income</b>				
Net sales	882 905	3 634 487	3 956 665	10 883 365
Own work capitalized	3 622 429	3 084 545	14 341 929	10 105 636
Other operating income	497 625	543 543	2 045 203	2 215 316
<b>Total operating income</b>	<b>5 002 959</b>	<b>7 262 575</b>	<b>20 343 797</b>	<b>23 204 317</b>
<b>Operating expenses</b>				
Goods for resale	-60 590	-196 029	-210 688	-213 469
Other external expenses	-3 457 110	-4 329 164	-16 010 862	-16 936 158
Personnel expenses	-5 812 237	-5 789 044	-23 387 593	-20 965 200
Depreciation of tangible and intangible fixed assets	-1 783 749	-2 085 793	-7 661 499	-7 661 968
Other operating expenses	-471 926	-36 952	-755 275	-48 275
Loss from participations in associated companies	-7 622 535	-648 523	-9 186 410	-2 594 640
<b>Total operating expenses</b>	<b>-19 208 147</b>	<b>-13 085 505</b>	<b>-57 212 327</b>	<b>-48 419 710</b>
<b>Operating profit</b>	<b>-14 205 188</b>	<b>-5 822 930</b>	<b>-36 868 530</b>	<b>-25 215 393</b>
<b>Financial items</b>				
Other interest income and similar profit items	23 942	0	111 464	123 440
Interest expense and similar loss items	-598 145	-57 364	-1 711 092	-243 472
<b>Profit or loss from financial items</b>	<b>-574 203</b>	<b>-57 364</b>	<b>-1 599 628</b>	<b>-120 032</b>
<b>Profit after financial items</b>	<b>-14 779 391</b>	<b>-5 880 294</b>	<b>-38 468 158</b>	<b>-25 335 425</b>
<b>Profit or loss before tax</b>	<b>-14 779 391</b>	<b>-5 880 294</b>	<b>-38 468 158</b>	<b>-25 335 425</b>
<b>Taxes</b>				
Tax on income for the period	0	0	0	0
<b>Profit or loss for the period / year</b>	<b>-14 779 391</b>	<b>-5 880 294</b>	<b>-38 468 158</b>	<b>-25 335 425</b>
<b>Key figures</b>				
EBITDA	-12 421 439	-3 737 137	-29 207 031	-17 553 425
Earnings per share	-0,49	-0,21	-1,34	-0,91
Number of shares, average	30 066 262	28 348 190	28 777 708	27 703 913
Number of shares at balance sheet date	30 925 298	28 348 190	30 925 298	28 348 190
Earnings per share after full dilution	-0,47	-0,20	-1,27	-0,88
Number of shares after full dilution, average	31 479 062	29 585 323	30 176 883	28 838 380
Number of shares after full dilution at balance sheet date	32 338 098	29 651 990	32 338 098	29 651 990





## Group balance sheet (SEK)

<b>Assets</b>	<b>Dec 31, 2021</b>	<b>Dec 31, 2020</b>
<b>Fixed assets</b>		
<b>Intangible assets</b>		
Capitalized expenses for development work	27 322 509	20 828 680
<b>Total intangible fixed assets</b>	<b>27 322 509</b>	<b>20 828 680</b>
<b>Tangible fixed assets</b>		
Equipment	696 077	1 264 751
<b>Total tangible fixed assets</b>	<b>696 077</b>	<b>1 264 751</b>
<b>Financial assets</b>		
Participation in associated companies	136 524	7 822 934
Other long-term receivables	0	4 900
<b>Total financial assets</b>	<b>136 524</b>	<b>7 827 834</b>
<b>Total fixed assets</b>	<b>28 155 110</b>	<b>29 921 265</b>
<b>Current assets</b>		
<b>Current receivables</b>		
Accounts receivable	771 340	3 048 291
Receivables from associated companies	33 281	472 050
Other receivables	1 092 731	868 566
Prepayments and accrued income	1 384 171	1 317 647
<b>Total current receivables</b>	<b>3 281 523</b>	<b>5 706 554</b>
<b>Cash and bank balances</b>		
Cash and bank balances	32 755 502	8 667 692
<b>Total cash and bank balances</b>	<b>32 755 502</b>	<b>8 667 692</b>
<b>Total current assets</b>	<b>36 037 025</b>	<b>14 374 246</b>
<b>Total assets</b>	<b>64 192 135</b>	<b>44 295 511</b>



## Group balance sheet (SEK)

Equity and liabilities	Dec 31, 2021	Dec 31, 2020
<b>Equity</b>		
<b>Equity attributable to parent company shareholders</b>		
Share capital	1 422 564	1 304 017
Other contributed capital	249 140 087	189 785 051
Other capital including profit or loss for the period	-194 719 152	-156 250 994
<b>Total equity</b>	<b>55 843 499</b>	<b>34 838 074</b>
<b>Long-term liabilities</b>		
Lease liabilities	0	560 584
<b>Total long-term liabilities</b>	<b>0</b>	<b>560 584</b>
<b>Current liabilities</b>		
Lease liabilities	560 584	228 474
Accounts payable	1 104 350	2 381 119
Current tax liability	4 273	26 182
Other liabilities	2 491 917	1 650 203
Accrued expenses and accrued income	4 187 512	4 610 875
<b>Total current liabilities</b>	<b>8 348 636</b>	<b>8 896 853</b>
<b>Total equity and liabilities</b>	<b>64 192 135</b>	<b>44 295 511</b>
<b>Key figures</b>		
Equity-assets-ratio	87,0%	78,6%
Debt-to-equity ratio	1,0%	2,3%
Interest-bearing net debt	n/a	n/a

## Changes in the group equity (SEK)

	Q4 2021	Q4 2020	2021	2020
<b>Equity at beginning of period / year</b>	<b>11 259 398</b>	<b>40 644 680</b>	<b>34 838 074</b>	<b>36 309 820</b>
Share issue	64 427 700	0	64 427 700	25 513 369
Issue costs	-5 064 208	52 688	-5 064 208	-2 299 790
Warrant premiums	0	21 000	110 091	650 100
Profit or loss for the period / year	-14 779 391	-5 880 294	-38 468 158	-25 335 425
<b>Equity at end of period / year</b>	<b>55 843 499</b>	<b>34 838 074</b>	<b>55 843 499</b>	<b>34 838 074</b>





## Group cash flow statement (SEK)

	Q4 2021	Q4 2020	2021	2020
<b>Operating activities</b>				
Operating profit or loss	-14 205 188	-5 822 930	-36 868 530	-25 215 393
Adjustments for non-cash items	9 866 498	2 771 269	17 584 557	10 304 457
Interest received etc.	10 439	0	12 484	425
Interest paid	-598 145	-39 101	-1 680 856	-60 053
Income tax paid	0	0	0	0
<b>Cash flow from operating activities before changes in working capital</b>	<b>-4 926 396</b>	<b>-3 090 762</b>	<b>-20 952 345</b>	<b>-14 970 564</b>
<b>Cash flow from changes in working capital</b>				
Decrease (+) / increase (-) in receivables	1 102 941	-2 526 479	2 425 031	-1 014 679
Decrease (-) / increase (+) in current liabilities	-142 276	2 481 427	-858 418	3 040 418
<b>Cash flow from operating activities</b>	<b>-3 965 731</b>	<b>-3 135 814</b>	<b>-19 385 732</b>	<b>-12 944 825</b>
<b>Investing activities</b>				
Investments in associated companies	0	-1 000 000	-1 500 000	-5 000 000
Investments in technology development	-3 622 429	-3 084 545	-14 341 929	-10 105 636
Acquisition of fixed assets	0	0	0	-39 362
Change in cash deposits	0	0	4 900	-4 900
<b>Cash flow from investing activities</b>	<b>-3 622 429</b>	<b>-4 084 545</b>	<b>-15 837 029</b>	<b>-15 149 898</b>
<b>Financing activities</b>				
Share issue	59 363 492	52 688	59 363 492	23 213 579
Loans from shareholders	-25 000 000	0	0	0
Amortization of financial leasing agreements	-57 752	-56 076	-228 474	-221 856
Warrant premiums paid	0	21 000	110 091	650 100
<b>Cash flow from financing activities</b>	<b>34 305 740</b>	<b>17 612</b>	<b>59 245 109</b>	<b>23 641 823</b>
Change in cash and cash equivalents	26 717 580	-7 202 747	24 022 348	-4 452 900
Cash and cash equivalents at beginning of period / year	6 027 701	15 888 702	8 667 692	13 180 571
Exchange rate difference in cash and cash equivalents	10 221	-18 263	65 462	-59 979
<b>Cash and cash equivalents at end of period / year</b>	<b>32 755 502</b>	<b>8 667 692</b>	<b>32 755 502</b>	<b>8 667 692</b>



## Parent company income statement (SEK)

	Q4 2021	Q4 2020	2021	2020
<b>Operating income</b>				
Net sales	4 686 375	5 768 599	20 932 097	16 198 542
Own work capitalized	0	0	0	606 299
Other operating income	497 625	526 957	2 023 356	3 303 476
<b>Total operating income</b>	<b>5 184 000</b>	<b>6 295 556</b>	<b>22 955 453</b>	<b>20 108 317</b>
<b>Operating expenses</b>				
Other external expenses	-2 173 711	-3 652 292	-10 125 722	-10 795 030
Personnel expenses	-2 711 126	-2 599 033	-11 971 263	-12 697 582
Depreciation of tangible and intangible fixed assets	-5 105	-2 296	-32 097	-1 212 623
Other operating expenses	0	0	0	-11 323
<b>Total operating expenses</b>	<b>-4 889 942</b>	<b>-6 253 621</b>	<b>-22 129 082</b>	<b>-24 716 558</b>
<b>Operating profit or loss</b>	<b>294 058</b>	<b>41 935</b>	<b>826 371</b>	<b>-4 608 241</b>
<b>Financial items</b>				
Profit/loss from participation in group companies	0	0	-610 000	0
Other interest income and similar profit items	541 199	0	1 346 307	123 440
Interest expense and similar loss items	-599 027	-46 697	-1 701 717	-215 476
<b>Profit or loss from financial items</b>	<b>-57 828</b>	<b>-46 697</b>	<b>-965 410</b>	<b>-92 036</b>
<b>Profit or loss after financial items</b>	<b>236 230</b>	<b>-4 762</b>	<b>-139 039</b>	<b>-4 700 277</b>
<b>Profit or loss before tax</b>	<b>236 230</b>	<b>-4 762</b>	<b>-139 039</b>	<b>-4 700 277</b>
<b>Taxes</b>				
Income tax	0	0	0	0
<b>Profit or loss for the period / year</b>	<b>236 230</b>	<b>-4 762</b>	<b>-139 039</b>	<b>-4 700 277</b>
<b>Key figures</b>				
EBITDA	299 163	44 231	858 468	-3 395 618
Earnings per share	0,01	0,00	0,00	-0,17
Number of shares, average	30 066 262	28 348 190	28 777 708	27 703 913
Number of shares at balance sheet date	30 925 298	28 348 190	30 925 298	28 348 190
Earnings per share after full dilution	0,01	0,00	0,00	-0,16
Number of shares after full dilution, average	31 479 062	29 585 323	30 176 883	28 838 380
Number of shares after full dilution at balance sheet date	32 338 098	29 651 990	32 338 098	29 651 990



## Parent company balance sheet (SEK)

Assets	Dec 31, 2021	Dec 31, 2020
<b>Fixed assets</b>		
<b>Intangible assets</b>		
Capitalized expenses for development work	756	14 560
<b>Total intangible fixed assets</b>	<b>756</b>	<b>14 560</b>
<b>Tangible fixed assets</b>		
Equipment	10 827	29 120
<b>Total tangible fixed assets</b>	<b>10 827</b>	<b>29 120</b>
<b>Financial assets</b>		
Participations in group companies	92 343 208	56 788 721
Other long-term receivables	0	4 900
<b>Total financial assets</b>	<b>92 343 208</b>	<b>56 793 621</b>
<b>Total fixed assets</b>	<b>92 354 791</b>	<b>56 837 301</b>
<b>Current assets</b>		
<b>Current receivables</b>		
Accounts receivable	771 340	2 900 691
Other receivables	372 859	231 867
Prepayments and accrued income	1 193 027	989 975
<b>Total current receivables</b>	<b>2 337 226</b>	<b>4 122 533</b>
<b>Cash and bank balances</b>		
Cash and bank balances	32 560 241	7 816 432
<b>Total cash and bank balances</b>	<b>32 560 241</b>	<b>7 816 432</b>
<b>Total current assets</b>	<b>34 897 467</b>	<b>11 938 965</b>
<b>Total assets</b>	<b>127 252 258</b>	<b>68 776 266</b>





## Parent company balance sheet (SEK)

Equity and liabilities	Dec 31, 2021	Dec 31, 2020
<b>Equity</b>		
<b>Restricted equity</b>		
Share capital	1 422 564	1 304 017
Fund development expenses	756	14 560
<b>Total restricted equity</b>	<b>1 423 320</b>	<b>1 318 577</b>
<b>Unrestricted equity</b>		
Profit brought forward	121 717 727	67 049 164
Profit or loss for the year	-139 039	-4 700 277
<b>Total unrestricted equity</b>	<b>121 578 688</b>	<b>62 348 887</b>
<b>Total equity</b>	<b>123 002 008</b>	<b>63 667 464</b>
<b>Current liabilities</b>		
Accounts payable	631 360	1 828 079
Liabilities to group companies	283 336	0
Other liabilities	1 116 875	625 005
Accrued expenses and accrued income	2 218 679	2 655 718
<b>Total current liabilities</b>	<b>4 250 250</b>	<b>5 108 802</b>
<b>Total equity and liabilities</b>	<b>127 252 258</b>	<b>68 776 266</b>
<b>Key figures</b>		
Equity-assets ratio	96,7%	92,6%
Debt-to-equity ratio	0,0%	0,0
Interest-bearing net debt	n/a	n/a

## Changes in parent company equity (SEK)

	Q4 2021	Q4 2020	2021	2020
<b>Equity at beginning of period / year</b>	<b>63 402 286</b>	<b>63 598 538</b>	<b>63 667 464</b>	<b>44 504 062</b>
Share issue	64 427 700	0	64 427 700	25 513 369
Issue costs	-5 064 208	52 688	-5 064 208	-2 299 790
Warrants	0	21 000	110 091	650 100
Profit or loss for the period / year	236 230	-4 762	-139 039	-4 700 277
<b>Equity at end of period / year</b>	<b>123 002 008</b>	<b>63 667 464</b>	<b>123 002 008</b>	<b>63 667 464</b>

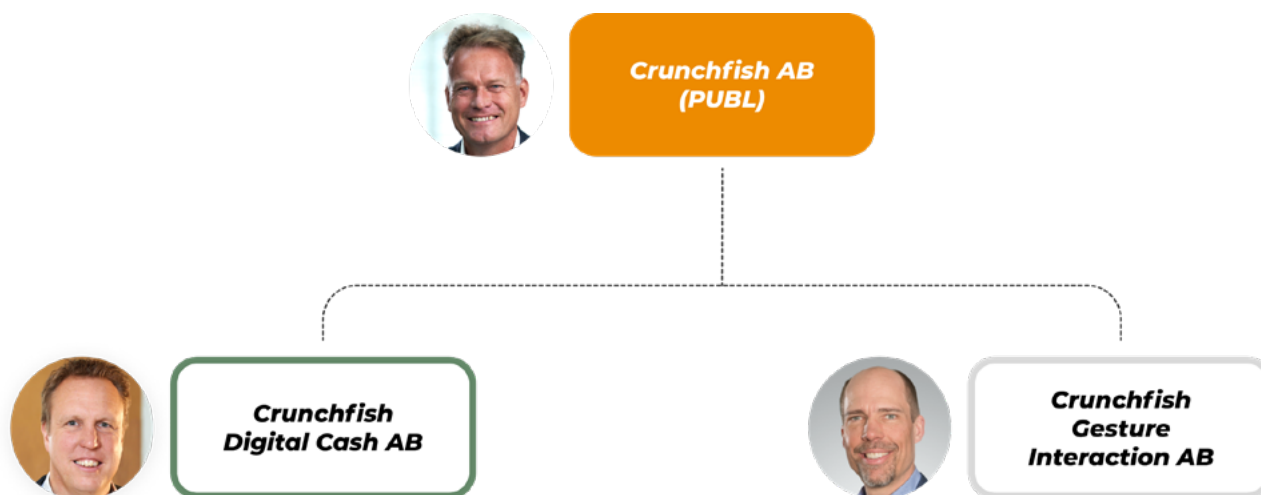


## Parent company cash flow statement (SEK)

	Q4 2021	Q4 2020	2021	2020
<b>Operating activities</b>				
Operating profit or loss	294 058	41 935	826 371	-4 608 241
Adjustments for non-cash items	5 105	2 296	32 097	1 212 623
Interest received etc.	541 199	0	1 272 652	426
Interest paid	-595 945	-30 082	-1 668 399	-33 705
Income tax paid	0	0	0	0
<b>Cash flow from operating activities before changes in working capital</b>	<b>244 417</b>	<b>14 149</b>	<b>462 721</b>	<b>-3 428 897</b>
<b>Cash flow from changes in working capital</b>				
Decrease (+) / increase (-) in receivables	257 252	-2 476 277	1 785 307	-239 631
Decrease (-) / increase (+) in current liabilities	-565 178	1 464 697	-1 141 888	770 745
<b>Cash flow from operating activities</b>	<b>-63 509</b>	<b>-997 431</b>	<b>1 106 140</b>	<b>-2 897 783</b>
<b>Investing activities</b>				
Investments in technology development	0	0	0	-606 299
Acquisition of shares in subsidiaries	0	0	-25 000	-50 000
Loans provided to group companies	-7 267 645	-7 000 574	-35 745 861	-25 570 252
Change in cash deposits	0	0	4 900	-4 900
<b>Cash flow from investing activities</b>	<b>-7 267 645</b>	<b>-7 000 574</b>	<b>-35 765 961</b>	<b>-26 231 451</b>
<b>Financing activities</b>				
Share issue	59 363 492	52 688	59 363 492	23 213 579
Loans from shareholders	-25 000 000	0	0	0
Warrant premiums paid	0	21 000	0	650 100
<b>Cash flow from financing activities</b>	<b>34 363 492</b>	<b>73 688</b>	<b>59 363 492</b>	<b>23 863 679</b>
Change in cash and cash equivalents	27 032 338	-7 924 317	24 703 671	-5 265 555
Cash and cash equivalents at beginning of period / year	5 531 185	15 757 364	7 816 432	13 140 218
Exchange rate difference in cash and cash equivalents	-3 282	-16 615	40 138	-58 231
<b>Cash and cash equivalents at end of period / year</b>	<b>32 560 241</b>	<b>7 816 432</b>	<b>32 560 241</b>	<b>7 816 432</b>



## Operational subsidiaries (SEK)



	Q4 2021	Q4 2020	2021	2020
<b>Crunchfish Digital Cash AB</b>				
Net income	270	1 506	2 631	8 251
Net expenses	-5 831	-6 046	-24 936	-22 365
Cash flow from operations	-5 561	-4 540	-22 305	-14 114
<b>Crunchfish Gesture Interaction AB</b>				
Net income	2265	2 128	2 929	2 452
Net expenses	-3 209	-3 855	-13 101	-13 788
Cash flow from operations	-944	-1 727	-10 172	-11 336



