

Annual Report 2023

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Word from the CEO



AMS-IX CEO Peter van Burgel reflects on an eventful year

"The global digital infrastructure stands as the cornerstone of an unfolding revolution, marked by the emergence of interconnected networks of intelligent devices. As we witness this transformation, it becomes evident that we are on the verge of disruptive innovations. I firmly believe that their success hinges upon robust, secure, and sustainable connectivity to accommodate the evolving demands placed on digital infrastructure.

A digital mainport

In the Netherlands AMS-IX is one of the largest global Internet Exchange points. Since its establishment in 1994, AMS-IX has been at the forefront of enabling efficient exchange of internet traffic and shaping the digital landscape, both locally and globally. AMS-IX facilitates connections between networks including internet service providers (ISPs), content providers, and streaming services. With the ever-increasing demand for connectivity, AMS-IX now handles peak traffic of more than 12 Terabits per second, equivalent to 100 million people playing Fortnite simultaneously or 6.4 million TikTok videos being watched simultaneously.

The international nature of AMS-IX, with 80% of our customers coming from abroad, has attracted many international companies to establish themselves in Amsterdam, making our company part of the third mainport alongside the port of Rotterdam and Schiphol Airport. The strong internet connectivity acts as a magnet and is crucial for the Netherlands to maintain its leading position as a hub for Europe now and in the future. This means that many parties bring their networks to the Netherlands to interconnect with other networks, making it one of the most well-connected places in the world.

The world around us

Our perspective on global developments is nuanced. While the Netherlands continues to perform relatively well, concerns linger regarding its declining global competitiveness and innovative capacity. An imminent threat looms over research and innovation if investments in the Netherlands decline. Competitors are already emerging in neighboring regions such as Scandinavia, Germany, and Southern Europe. Political factors and public sentiment also weigh heavily on the country's competitive standing.

In my opinion it's crucial to recognize the Netherlands' unique position as one of Europe's hyperconnected hubs, owing to numerous submarine cables, a high density of Internet Exchanges, and the presence of data centers. However, economic conditions and fearmongering are beginning to influence this position. For instance, the municipality of Amsterdam's reluctance to consider constructing new data centers is troubling, posing a risk to the Netherlands' status as a data hub, especially amidst the AI revolution's reliance on such infrastructure.

To address these challenges, we engage in fact-based discussions and utilize argumentation strategies. Collaborating with organizations like SURF, ISOC (Internet Society), and the Digital Infrastructure Foundation in the Netherlands (DINL), as well as governmental bodies and interest groups such as the Sea Cable Coalition, we strive to exert influence and drive positive change. We've also communicated our concerns to the current government through a manifesto outlining the necessary steps for digital infrastructure development.

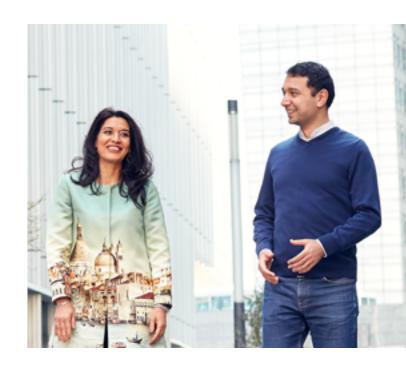
To fulfill the ambition of positioning the Netherlands at the forefront of knowledge and application of AI, accessible data centers are essential. It's crucial to thoughtfully consider the energy consumption of data centers. While it may pose challenges in certain areas, it's not a widespread issue. Locations like Almere and Zeewolde present viable options. Despite their critical role in the country's infrastructure, there's a tendency to overlook the significance of data centers.

Living up to our mission: Better Society through Better Internet

Our mission is twofold: to enhance the technical aspects of the internet for better access and connectivity globally, and to leverage the internet to improve society and local communities. We believe in the transformative power of better internet access, which extends beyond mere connectivity to include access to information and education. To achieve this, we've developed a comprehensive strategy focused on Innovation, Optimization, and Growth.

I truly believe innovation is vital for diversification and sustainability, while optimization ensures cost-effectiveness and user-friendly experiences. Additionally, growth serves both demanddriven expansion and operational enhancements. We're also committed to supporting local communities through initiatives like sponsoring events and developing regional hubs to extend connectivity and educational opportunities. By investing in innovation, optimization, and growth, we aim to create a more connected, informed, and prosperous digital society worldwide.

The three pillars of our company story are Neutrality and Independence, Safety & Security, and Sustainability, which serve as the foundation of our identity and mission. Our strategy revolves around these pillars as we strive to create a better society through improved internet services. Ensuring growth is vital for us to continue adding value to society, considering the ongoing expansion of the digital landscape. These themes represent our core values and will remain central to our focus moving forward.





We also engage in discussions about regulatory frameworks to prevent the fragmentation of the internet



The focus areas we prioritize include online safety, encompassing technical security measures like anti-phishing and DDoS protection, alongside safeguarding vulnerable users and combatting malicious content. We also engage in discussions about regulatory frameworks to prevent the fragmentation of the internet, ensuring its continued positive impact. Topics such as combating CSAM and enhancing cybersecurity in the North Sea are actively promoted and discussed to foster dialogue and drive meaningful action. Recently AMS-IX, together with ECP, also published an Argument Diagram addressing the Dutch Temporary Intelligence Services Act, aiming to enrich public discourse and inform decisionmaking processes. I'm convinced that this initiative underscores our commitment to facilitating informed discussions and shaping responsible policies in the digital realm.

Driving sustainability towards a greener future

The Ministry of Economic Affairs published a favorable report on the digital sector, highlighting its economic benefits while also acknowledging societal costs such as CO2 emissions and resource consumption. Despite consuming considerable energy, the sector efficiently creates value. Moreover, the modest physical footprint of the digital infrastructure, particularly data centers, emphasizes its efficiency. Data centers, for instance, consume only 3% of the total energy and occupy just 0.8% of the land, showcasing their efficient use of resources and value contribution per unit area.

We're exploring ways to make a sustainable impact both internally and through innovation, particularly focusing on data centers and partnerships to enhance sustainability in IT and connectivity. While technologies like AI hold promise for solving major issues, our increasing data production and energy consumption present challenges to sustainability. As the digital infrastructure evolves to become faster and more reliable, we're also prioritizing energy efficiency and resource conservation.

AMS-IX has achieved an 85% reduction in energy consumption at the Equinix AM5 data center by implementing new network equipment. An achievement that makes me very proud.

Furthermore, we're making progress with the Juniper migration project, aiming for completion by late 2024 or early 2025 to achieve significant energy savings across all 16 locations by implementing new hardware. These efforts not only benefit customers but also contribute to our environmental objectives.



we're also prioritizing energy efficiency and resource conservation.

2023 priorities and accomplishments

In 2023, our main goal was to boost organizational maturity and advance our digital transformation, spearheaded by project Delta. This initiative aimed to streamline processes and elevate our expertise by leveraging external talent. Clearer KPIs were set, and industry best practices were adopted to drive execution improvements, particularly within the CTO office. This involved appointing a new management team for the CTO office and restructuring project management to focus on impactful projects. We focused specifically on finalizing the Salesforce migration, which will result in the creation of a unified digital platform linking all AMS-IX business activities and enabling centralized customer relationship management. Additionally, we have made progress with the Juniper project, completed the migration to the Atlassian cloud, and incorporated 400 Gigabit ports into our network. These efforts are aimed to bolster our execution capabilities and drive significant improvements.

A primary focus in 2023 was the seamless transition of all our customers to our new portal, ams-ix.me. This transition is essential for maintaining high service standards and facilitating the deployment of new services to enhance user experience and interaction.

While not fully completed yet, we anticipate finalizing the transition by summer of 2024. I will really emphasize this aspect in the coming months, because consolidating all customers into one system will provide a solid foundation for further enhancements and progress.

Another significant focus area has been prioritizing innovation initiatives to pinpoint where we can make the most impact. The delay with migration to the new portal still poses obstacles to innovation however, by Q2 2024, we aim to introduce several new services. In the meantime, we have already launched a new Data Centre Interconnect service for our customers. This service allows customers to utilize the AMS-IX Amsterdam platform to transfer data securely and reliably between different AMS-IX Points of Presence (PoPs), enhancing network performance. Additionally, we are actively progressing with the next phases of the Fieldlab AMdEX project, collaborating with Dexes Data Exchange, SURF, Amsterdam Economic Board, and the University of Amsterdam. The project aims to develop a neutral, generic, independent infrastructure ensuring sovereignty in data sharing initiatives.



Expansion of our international footprint

With a robust infrastructure initially established in Amsterdam, AMS-IX has expanded its presence across various continents in recent years by launching internet exchanges in major cities across Southeast Asia, the Middle East, Africa, and the United States, aiming to enhance local connectivity. AMS-IX now operates 14 internet exchange points worldwide. The international expansion continued steadily in 2023, achieving our goals of establishing locations such as AMS-IX Manila, AMS-IX Bangkok, and AMS-IX Lagos. The latter holds significant importance for us, as it serves as a crucial gateway to providing low-latency, affordable Internet access in the West African region. Additionally, partnerships have been announced for an Internet Exchange in Oman, aiming to revolutionize digital infrastructure services across the Middle East and beyond by interconnecting leading organizations, networks, data centers, and cloud services.

In our international strategy, we focus on reinvesting profits in the international regions, aligning with our mission "Better society through better internet." However, I recognize that this mission presents challenges; we must generate sufficient margin to facilitate profit reinvestment. It is crucial to enhance the internet by improving data transport capabilities, speed, and cost-effectiveness for end-users. Notable efforts in the Middle East demonstrate infrastructure improvements, facilitating increased competition and new entrants to enhance services for end-users. Similarly, initiatives like AMS-IX Djibouti, launched in partnership with data center specialist Wingu, aim to provide better internet access in Africa by consolidating existing networks and fostering new developments in the region.

Financial results

I am cautiously optimistic about our financial results, which, despite being somewhat subdued, are close to our objectives. However, with a significantly lower net result after tax of EUR 0.9m in 2023 compared to EUR 3.4m in 2022, optimization is crucial for 2024. With that, we aim to gain more control over our metrics, emphasizing a data-driven approach. Overall, we remained resilient in 2023. Our net revenues grew by 2.0%, driven by a strong public peering business, although our gross margin experienced a slight decrease. Strategic investments were made in personnel and fixed assets, such as the changes in our CTO office and deploying Juniper across the different locations. I am confident about our ability to navigate the challenges ahead, given our robust financial reserves.



Forward-looking objectives for 2024

Our strategy for 2024 stays consistent: Innovate, Optimize & Grow. Expanding on the progress of 2023, our primary goal for 2024 is to leverage our accomplishments. We will complete our internal digital transformation, boost productivity, and launch new offerings. While we have made strides in internal optimization, our aim is now to heighten productivity further. To ready ourselves for emerging opportunities like advancements in quantum technology and the swift evolution of AI, we've conducted internal scenario planning sessions, empowering us to react swiftly to new developments.

In 2024, our international focus extends to both establishing new locations and maximizing value at existing ones. We're investing in ecosystems and fostering compelling content to broaden our reach across regions. Collaboration with international partners remains essential for our success. Regarding sustainability, we're proactively engaging in discussions within and beyond AMS-IX.



Collaboration with international partners remains essential for our success.

We believe environmental stewardship involves not just reducing, but also innovating and doing more. Thinking outside of the box with initiatives like establishing 'AMS-IX forests' could catalyze our journey towards a carbonneutral business model that will also benefit our customers and members. Exploring the idea of a carbon-neutral exchange is also on our radar. Furthermore, it is also my personal mission to ensure that we stay committed to assessing our energy consumption and advancing sustainability throughout our supply chain.

Celebrating milestones and embracing Impact

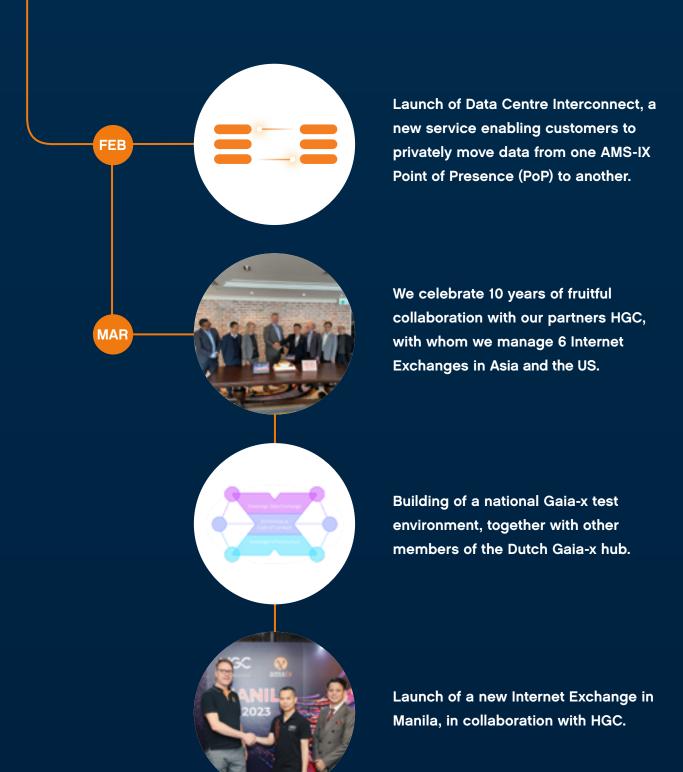
As we reflect on the past year, I want to express my sincere appreciation to our members, customers, and partners for their steadfast support of AMS-IX. I also want to acknowledge the dedication and hard work of our AMS-IX team, who have shown remarkable resilience and determination in navigating various challenges. Despite these obstacles, we have reached significant milestones and moments of pride. I am deeply grateful to the AMS-IX Board for their unwavering commitment to guiding our mission and keeping us aligned with our objectives.

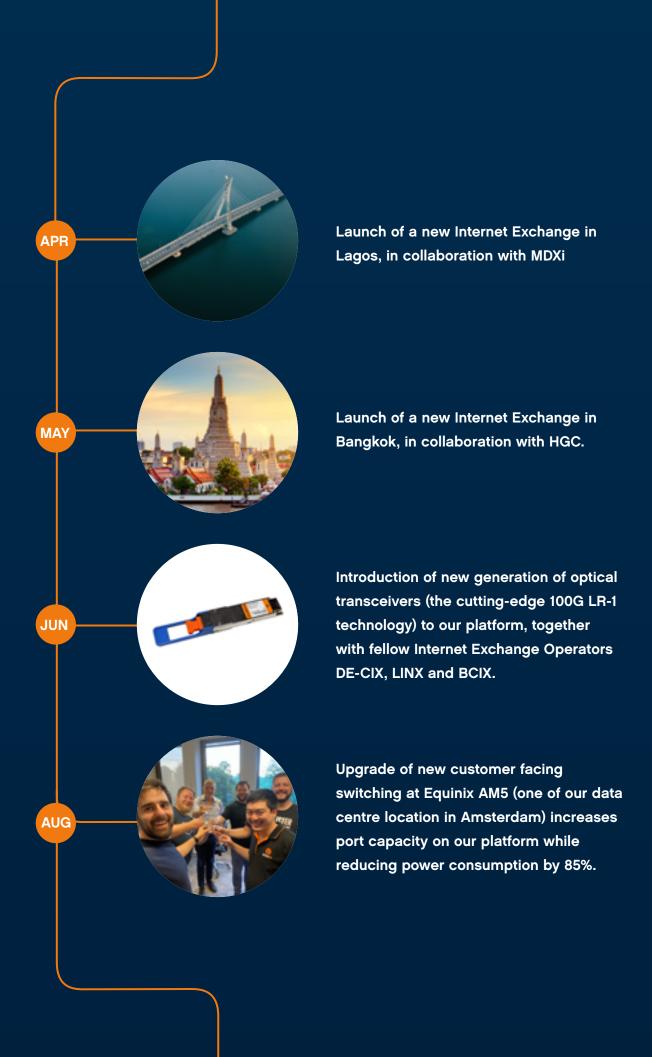
Our engagement in public affairs discussions, alongside industry partners, NGOs, and governments, has allowed us to make meaningful impacts and shed light on crucial issues within our sector. Additionally, our commitment to community involvement remains strong, with AMS-IX actively collaborating with industry partners to promote knowledge exchange and educational initiatives.

As we release this annual report, we also celebrate AMS-IX's 30th anniversary, a remarkable milestone and I want to thank the many people that have been part of that incredible 30-year journey. I take great pride in our daily efforts to enhance internet connectivity worldwide, driven by our mission. Looking ahead to 2024, I am confident that together, we will continue to achieve remarkable milestones and make a positive impact on society through the transformative power of the Internet."



AMS-IX in 2023









Chair's statement



2023 - accelerating scale

In a volatile world overshadowed by the ongoing war in Ukraine, AMS-IX begun to reap the benefits of its investments in scaling up. This includes launching new national and international locations and undergoing digital transformation, which involves implementing a new organizational structure, processes, and systems to enhance efficiency and customer experience.

Continued challenges in a volatile world

As of writing this statement (March 2024), the world around us remains insecure and unpredictable. The ongoing war in Ukraine and the conflicts in Israel and Gaza dominate the news. Moreover, internet infrastructures face increased risks, with significant cable cuts in the Red Sea (reportedly linked to attacks or sabotage by the Houthis in Yemen) and with increased "surveying" activity near subsea cables in European waters.



Accelerating scale

For AMS-IX 2023 proved to be a highly successful year. International activities saw accelerated growth through the establishment of new internet exchanges in countries such as Nigeria and Thailand. These exchanges not only align with AMS-IX's mission of "building a better internet to contribute to a better society" but also contribute to scaling up AMS-IX operations, crucial for reducing operational costs per exchange and generating funds for innovation.

While some people may view these international expansions skeptically as mere efforts to bolster AMS-IX's image, it's important to note that these locations are typically owned by local partners. AMS-IX provides the platform and support under the IX-as-a-Service umbrella, with the majority of risks and rewards shared with the local partner.

Efficiency improvements enabling innovation

The growth in locations wasn't the sole contributor to improved efficiency. Results from the Digital Transformation program and restructuring of the technical team have also played vital roles. These efforts have enabled us to focus on timely project completion and allocate more time to innovation, which is allocated approximately 2% of revenues. I expect that during 2024, we will see more tangible results from various initiatives. Some of these are closely related to our core business, such as photonic crossconnects. Others may be more distant from our core business but remain connected to it, such as the Amsterdam Data Exchange (AMdEX), which made good progress during 2023.



The "neutral and trust based" AMS-IX brand gets us invited to the table with many new partners

Our markets

In 2023, the IP interconnection market in the Netherlands followed the trends of the previous years. This included ongoing price decreases in alternative interconnection services, particularly in IP Transit, alongside the growth of alternative locations like Marseille as interconnection hubs. Additionally, there was a consolidation in access networks, with larger networks increasingly avoiding IXes. Furthermore, content traffic became concentrated among fewer than 10 content providers, leading to a shift from IX services to Private Network Interconnects (PNIs). However, despite these trends, the continuous increase in equipment, power and colocation prices has resulted in the flattening out of price declines.

Another noticeable development was the continued emergence of new internet exchanges in the Netherlands, often attempting to enter the market by offering free or low-cost ports to attract new customers. At AMS-IX, we will closely monitor these developments and ensure that our members and customers perceive the value of an exchange with a professional support team, robust security measures, and acting as "one of the voices of the internet community" in various political and regulatory debates.

Outside the Netherlands the opportunities seem endless, even in countries with established member based or commercial exchanges. The "neutral and trust based" AMS-IX brand gets us invited to the table with many new partners, with especially good traction in the Middle East and Southeast Asia.

A stable team

In 2023, the AMS-IX organization and Management Team continued to stabilize with reduced employee attrition and sickness levels. Recruiting and retaining talent is an ongoing challenge for any technology company these days, but we believe that the AMS-IX activities, its culture (embracing diversity and inclusion) and its brand, in combination with competitive employment conditions, will enable the AMS-IX team to thrive in the years ahead.



Looking ahead

I have great confidence in AMS-IX's ability to create long term value for its members and other stakeholders. We have a seasoned and energetic management team, which is well aligned and has a constructive relation both with its employees and with the Board. We have a talented and enthusiastic pool of employees, a solid strategy, and healthy financials.

As we have seen in various growth and innovation initiatives, we should not underestimate the importance of AMS-IX' neutrality and transparency, which have always been at the heart of AMS-IX. This really sets AMS-IX apart from other parties and enables AMS-IX to move into markets where such a governance structure is of importance to build trust and acceptance. In all my interactions with the AMS-IX team, I really recognize these values - which will play a key role in driving our future success.

On behalf of the Board. Bart J.R. van der Sloot Chair

Board Report

The "AMS-IX Board" serves as the Executive Board of the AMS-IX Association, overseeing its business operations, and also functions as the General Shareholder Meeting and Supervisory Board of AMS-IX B.V.

In its role of Supervisory Board, it appoints and supervises the CEO and ensures the Management Team (MT) of AMS-IX B.V. executes the agreed strategy to create long-term value, withproper controls in place to manage the business including financials and risks.

Composition of the Board

Name	Organisation	Board member since	Next re-election	End term of office as a Board Member
Eric Loos	Gartner (formerly BICS)	20 Dec 2016	Jun 2025*	Jun 2028*
Michael Ourabah	BSO Network	14 Dec 2018	Jun 2024	Jun 2030
Bernhard Pusch	Telstra	12 Dec 2019	Jun 2026	Jun 2032
Bart van der Sloot	Leaseweb	20 Dec 2016	Jun 2025	Jun 2028
Jan Thielemans	euNetworks	12 Dec 2019	Jun 2026	Jun 2032

Meetinga and Activities of the Board

Number of Board Meeting	Date	In person/ Remote
146	13 February 2023	Remote/in person (5 of 5)
147	9 May 2023	Remote/in person (5 of 5)
148	5 September 2023	Remote/in person (5 of 5)
149	21 November 2023	Remote/in person (5 of 5)

Number of General Meeting	Date	In person/ Remote
59	31 May 2023	In Person (during MORE-IP)
60	6 December 2023	Remote



In 2023 there were four Board Meetings, all attended by all Board members, with a combination of remote and in-person participation. During these meetings, the MT of AMS-IX B.V. is also present to present the results of the previous quarter in their area of responsibility (in the quarterly Management Report) and to present or discuss plans.

In addition to formal Board meetings, Board members and MT members are regularly in contact to discuss specific topics. These discussions typically take place in the "Finance Committee", "Governance and Compliance Committee" and the "Compensation Committee" to ensure the Board remains well informed about the operations of AMS-IX B.V.

The Chair of the Board and the CEO of the MT have a biweekly call to share updates and review progress.

Board developments

Bernhard Pusch and Jan Thielemans were reelected for a new three-year term during GM 59. Jan Thielemans left Arcadiz Telecom and joined euNetworks (both are AMS-IX members). Eric Loos left BICS and joined Gartner (not an AMS-IX member), which means that Eric cannot be re-appointed after the end of his current term (June 2025).

There were no changes in the committees of the Supervisory Board.

A Code of Conduct training has been rolled out during 2023 (also for Board Members).

Remuneration

Participation on the Board is voluntary, and there are no monetary remuneration or compensation for the activities. Travel and hotel expenses are covered by the AMS-IX B.V.

Closing

The Board expresses its respect and gratitude to the AMS-IX MT and all employees for a great 2023.

Amsterdam, March 19, 2024.

Bart J.R. van der Sloot

Chair

Word from the CFO



Iris Vonk Chief Financial

Our net result after tax of EUR 0.9m in 2023 was significiantly lower than in 2022 (EUR 3.4m), but it was in line with our expectations for the year.

Net revenues grew by 2.0% to EUR 24.2m in 2023 and were mainly driven by a strong public peering business.

The gross margin decreased from 90.5% in 2022 to 89.2% in 2023.

Personnel costs (including contractors) increased by 20% compared to 2022. Our full-time equivalent (FTE) base increased from 67.4 to 78.2 FTE, including a new management team for the CTO office (Project Delta). In 2023, we performed a salary benchmark review, also contributing to the increase in salary and related costs. Other operating expenses increased by 32% to EUR 7.5m and include the cost of our digital transformation as well as one-off costs for projects.

Investments in fixed assets (EUR 3.4m) were primarily driven by the investments in the switching platform.

In 2023 we wrote off the remaining deferred tax asset of EUR 0.2m resulting from the losses incurred in our subsidiary, AMS-IX USA Inc. The subsidiary was dissolved as per December 31, 2020, and the taxable losses have been fully utilized by the end of 2023.

Overall, 2023 was a tough year with increased competition making it difficult to grow revenues both in Amsterdam and abroad. On the other hand we continued to invest in our organizational maturity and digital transformation.

We forecast 2024 to be a similarly challenging year. Consistent with prior years we have sufficient level of (cash) reserves to deal with this scenario.

Company balance sheet

Assets	2023	2022
Non-current assets		
Fixed assets	6,922,759	4,717,541
Financial assets	-	167,134
	•——•	•——•
	6,922,759	4,884,675
Current assets		
Accounts receivable	2,207,099	1,996,503
Taxes receivable	799,794	697,773
Other receivables	1,139,291	806,154
Accrued income	1,911,979	1,863,744
Cash and cash equivalents	14,965,340	15,978,084
	•——•	•——
	21,023,503	21,342,258
Total Assets	27,946,262	26,226,933

Equity & liabilities

	2023	2022
Equity		
Share capital	41,500	41,500
Share premium	385,779	385,779
Legal reserves	-	-
Other reserves	23,450,616	20,079,301
Retained earnings	901,865	3,371,315
	24,779,760	23,877,895
Provisions		
Non-current liabilities		-
	24,779,760	23,877,895
Current liabilities		
Financial lease obligations	-	-
Trade payables	942,034	625,751
Taxes and social premiums	324,481	191,910
Other payables	1,899,987	1,531,377
	•——•	••
	3,166,502	2,349,038
Total Equity and liabilities	27,946,262	26,226,933

Company income statement

	2023	2022
Net Revenue	24,220,899	23,745,251
External operating costs	2,605,896-	2,265,356-
Gross Margin	21,615,003	21,479,895
	89,2%	90,5%
Other operating costs		
Personnel costs	11,726,576	9,754,714
Depreciation of tangible fixed assets	1,239,739	1,588,887
Other operating expenses	7,506,308	5,665,754
	•——•	••
Total Other operating costs	20,472,623	17,009,355
Operating result	1,142,380	4,470,540
Financial income and expense	61,521	23,241
Result before tax	1,203,901	4,493,781
Income tax expense	302,036-	1,122,466-
Share in results of subsidiaries and		
participating interests		
Result after tax	901,865	 3,371,315

Letter from the **Auditor**

To: Stakeholders of **Amsterdam Internet** Exchange B.V.

Opinion

The Summary of Accounts 2023 of Amsterdam Internet Exchange B.V., based in Amsterdam is derived from the audited financial statements 2023 of Amsterdam Internet Exchange B.V.

In our opinion the accompanying Summary of Accounts 2023 are consistent, in all material respects, with the audited financial statements 2023 of Amsterdam Internet Exchange B.V. on the basis described on page 29 to page 31.

The Summary of Accounts 2023 comprise of:

- Company Balance Sheet
- · Equity and liabilities
- · Company Income Statement

Summary of Accounts

The summary of Accounts do not contain all the disclosures required by Part 9 of Book 2 of the Dutch Civil Code. Reading the Summary of Accounts and our report thereon, therefore, is not a substitute for reading the audited financial statements of Amsterdam Internet Exchange B.V. and our auditor's report thereon. The Summary of Accounts and the audited financial statements do not reflect the effects of events that occurred subsequent to the date of our auditor's report on those financial statements of May 8th 2024.

The audited financial statements and our auditor's report thereon

We expressed an unmodified audit opinion on the audited financial statements 2023 of Amsterdam Internet Exchange B.V. in our auditor's report of May 8th 2024.

Management's Responsibility

Management is responsible for the preparation and fair presentation of the Summary of Accounts in accordance with the applied criteria. The board is responsible for overseeing the company's financial reporting process.

Our responsibilities

Our responsibility is to express an opinion on whether the Summary of Accounts is consistent, in all material respects, with the audited financial statements based on our procedures, which we conducted in accordance with Dutch law, including the Dutch Standard 810 'Opdrachten om te rapporteren betreffende samengevatte financiële overzichten' (Engagements to report on summary financial statements).

Bunnik, May 8th 2024 The Audit Generation B.V Signed by: A.M. van Diermen RA



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