

The internet needs
Guardians, Guides
and **Stewards**



We are
Ireland online

About .IE

The internet needs Guardians, Guides and Stewards.

.IE is an active participant in multi-stakeholder forums dedicated to meeting these needs.

.IE is the **national registry** for .ie domain names, Ireland's official country code Top Level Domain (ccTLD) since 2000.



With .ie domains, we provide a **trusted pathway** to the internet, helping people and businesses across Ireland to unlock the power of the internet.



We are an Operator of Essential Services and manage a critical piece of Ireland's **technical infrastructure**.

We are dedicated to **tackling cybercrime** with established consumer protection protocols and monitoring services.



We produce **fact-based research** and reports for the business community and policymakers.



We use our **profit-for-good** and we are committed to **digital advocacy** for local towns, communities and SMEs.



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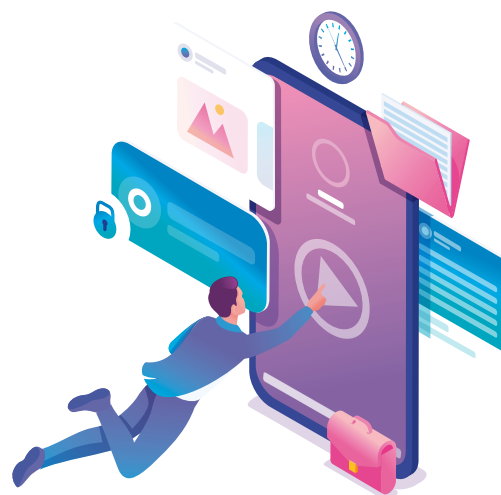
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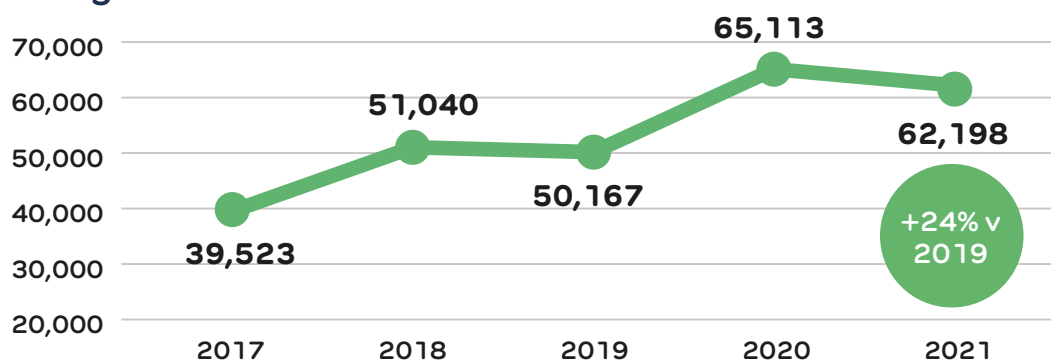
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Achievements 2021

New .ie registrations



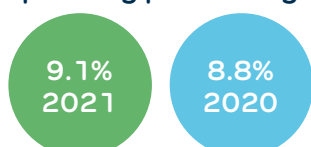
Total .ie database



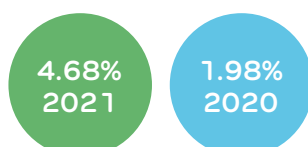
Achievements in 2021 included:

- ▶ Consensus achieved in the multi-stakeholder Policy Advisory Committee (PAC) on handling technical abuse, which uses the DNS. Commenced a monitoring service to notify and assist victims of cyber exploits on .ie websites.
- ▶ Groundwork advanced for ISO 27001 certification, which was achieved in Q1 2022.
- ▶ The .IE Digital Town programme promoted and recognised towns' digital projects. We also engaged with government policymakers and towns-focused groups to tackle the digital divide. Plan developed to apply the .IE digital readiness framework (Blueprint) to 26 towns across Ireland.
- ▶ New Strategic Plan 2024 finalised, following a robust strategy development process, with forums for stakeholder engagement and consultation.
- ▶ .IE achieved Ibec's KeepWell Mark™, an evidence-based workplace wellbeing accreditation award, recognised as the business standard for health, safety and wellbeing in Ireland.

Operating profit margin



Return on financial investment



Purpose and Strategic Priorities

Purpose

Our purpose is to enable and empower people, communities and businesses across Ireland to thrive online.

Vision

Our vision is that .IE becomes the trusted standard bearer in terms of online security, standards and innovation thereby evolving in its vital role in Ireland's digital journey.

Themes

Our strategic priorities are formulated at a time of significant change in the global regulatory environment impacting cybersecurity and data protection, combined with dramatic commercial evolution of the domain name industry, which is experiencing global consolidation at the registry level and regional consolidation at the Registrar level.

As a trusted, independent entity with a profit-for-good business philosophy, we have a convening authority which we can and should use to engage and empower people, communities and businesses across Ireland to thrive online.

Strategic Priorities

- ▶ To protect the integrity, confidentiality, availability and reliability of the registry's mission critical systems and processes.
- ▶ To grow the registration base, by generating new registration growth greater than our competitors and maximise .ie renewal rates. We will incentivise, grow and develop our channel partners and we will create demand for .ie with indirect marketing and content marketing through our programmes and publications. Through our initiatives, we will ensure that the brand equity always flows back to .IE.
- ▶ To create a centre of excellence in three areas; providing data metrics and data visualisation; providing online self-assessment security tools; and supporting undergraduate applied research on internet-related topics.
- ▶ To develop a people-centered culture in a digital age – an inclusive working environment, where our people are fully engaged and where continuous personal and professional development is a strategic priority for all. Specifically, to develop, by 2024, new internal skill sets with an innovative mindset.



Chair's Statement

Keeping the .ie namespace infrastructure safe and secure for our internet users and for Irish business is a critical priority for the Board. Although not responsible for website content, we are nevertheless pleased to provide a policy forum for stakeholders to debate and build consensus about measures to protect the innocent online.

The Board approved a new 4-year strategic plan in April 2021 after a robust strategy development process with external expert facilitation. In Strategy 2024, we reaffirmed our Purpose: to enable and empower people, communities and businesses across Ireland to thrive online, and we assure our stakeholders of our continued commitment into the future. As we strive to achieve our new strategic objectives, set out on the previous page, we will be true to our values of Equality – Excellence – Endeavour.

As a company limited by guarantee, .IE's financial reserves are its only source of capital and it is therefore critically important that we maintain a capital base fully adequate to meet current and prospective business requirements. In recording an after-tax surplus of €489k we improved our financial strength in 2021. Net liquid funds totalled €4.3m at year end. The Company's financial position remains strong and in line with our financial objectives. It is these financial reserves which empowers us to invest €1 million in programmes such as the .IE Digital Town programme, referenced below.

2021 was another successful year for .IE as our database at the end of 2021 was 330,108 .ie domains, with 62,198 new registrations in 2021, which are 24% higher than pre-pandemic 2019 numbers. European country registries also experienced increased growth and according to the CENTR 2021 report, the .ie domain showed the third highest year on year growth, ahead of France and Italy.

In its first full year of operation in 2021, the TITAN registration system was used by our Registrars and channel partners to drive their own growth and expansion. The Board was pleased to support and authorise a significant investment in licensing this state-of-the-art domain registry management system, which was customised in 2020 for the .ie namespace.

The Board approved an investment of €1 million in the .IE Digital Town programme. The three pillars of this 4-year programme have been developed to foster digital enhancement and adoption in Ireland; helping businesses, citizens and communities to harness the benefits of the internet and to thrive online. The Board congratulates the winners of the inaugural .IE Digital Town awards, which were presented by Minister Damien English T.D at a virtual awards ceremony in June 2021.

I would like to acknowledge the continued dedication and diligence of our Policy Advisory Committee (PAC) which was established in 2015 to advise the Board on policy matters. Representative of a broad range of stakeholders, the PAC continued in 2021 to play an important role in assisting us to develop our policies in line with the changing internet cybersecurity environment, while also assisting the Board in balancing the rights, responsibilities and obligations of all parties. On behalf of the Board, I would like to thank the members for their contribution to the ongoing policy development process at the registry.

On behalf of the Board, I would like to thank our Chief Executive, the executive team and all our staff for their continued dedication and commitment in 2021. In particular, the Board appreciates the team's commitment to building the .IE brand and to maintaining a resilient technical infrastructure, particularly given the challenging circumstances during the two years of pandemic-related restrictions.

To deliver on our ambitious plans set out in the Strategy 2024, it is vital that we continue to attract, nurture and retain talent. There is intense competition for talent in the digital economy, but .IE is viewed as a trustworthy organisation with a purpose and values which are attractive for highly motivated individuals who want to make a positive contribution to the internet community. We were pleased to achieve the KeepWell accreditation in 2021 and join the Top 100 ranked companies Leading in Wellbeing.

Outlook

The outlook for the digital economy is extremely positive, with the national opportunity to build on the acceleration of digital transformation enforced by the Covid-related lockdowns. The challenge will be to ensure that Ireland's towns and micro businesses can leverage long-term benefits from new levels of productivity and e-commerce sales, and retain the benefits of remote working.

We welcome the EU regulatory focus on cybersecurity and ongoing data protection. However, we are aware of the potential for disruption and the challenges and implications for the future cost base for our channel, and for SMEs broadly, who are at the coalface in implementing new systems and processes in order to ensure compliance. In this context, as an Operator of Essential Services, designated by the Department of Communications, we are actively engaged in developing responses to the imminent expansion of the EU regulatory environment.

We are confident that the .IE team will continue to provide efficient infrastructure and services to the citizens and businesses of Ireland and help them thrive online.

Louise English
Chair

29 July 2022



Chief Executive's Report

2021 was a year of ongoing challenges and achievements for .IE; we coped with Covid restrictions; we benefitted from accelerated digital transformation, which boosted demand for SME's online presence; and by year end the EU agenda for significant cybersecurity regulation became apparent.

Arising from Strategy 2024 we formed a new team in 2021 to focus on data analytics and data visualisation with a medium-term objective to create a centre of excellence in three areas; providing data metrics and data visualisation; providing online self-assessment security tools; and supporting undergraduate applied research on internet-related topics. We also dedicated resources in 2021 to ISO compliance, recognising the need to move from ISO alignment to ISO certification.

Operational review

At the end of 2021, there were 326,103 .ie domains on the database. There were 62,198 new registrations in the year, the second-highest annual figure ever recorded, being a 4.5% decrease on 2020 (65,113). These registrations were offset by 42,593 non-renewals/deletions which were up 16.9% over 2020 (36,446 domains). This combined effect means that the net increase of 19,605 in 2021 is 31.6% lower than the net increase in 2020 (28,667 domains). On a positive note, we continue to gain market share against .com with .ie at 52.6% of hosted domains.

Registration revenue increased by 9.1% to €4.12 million (2020 – €3.77 million). The deferred income on the balance sheet increased by 6.5% in 2021, to €2.98 million (2020 – €2.80 million). This is because the invoiced value of registration fees increased by 4.8%, reflecting an 86% renewal rate and 62,198 newly created registrations in 2021.

This ongoing new growth was once again primarily the result of businesses planning to get online in response to Covid-19 restrictions, with the promise of generous government supports including the Trading Online Voucher scheme, and also the result of marketing activities by our accredited Registrar community. Businesses invested in a trusted .ie web address to continue communicating with their customers and to sell their products and services, often using apps and cloud platforms to boost sales and control costs.

The .IE Marketing and Communications team refocused our .IE Tipping Point reports in 2021 to provide useful and relevant insights to policymakers and also to provide helpful business advice to SMEs via webinars and case studies.

The financial position of the Company at 31 December 2021 is solid. Members' Funds increased by 10.7% from €4.56 million at December 2020 to €5.05 million by the end of December 2021. Commentary on the 2021 financial performance is set out in the Report on page 31.

There was no progress in 2021 on the Company's application to ICANN for the transfer from UCD of 'ccTLD Manager' status to IE Domain Registry, which was submitted to ICANN in February 2011, accompanied by letters of support from stakeholders in the local internet community. In order to complete the transfer request ICANN will need a letter of support from the Irish government. The Department of the Environment, Climate and Communications (DECC) is still considering the matter.

Contributing to national cyber security efforts

Again in 2021, the consequence of Covid-19 was an increase in cyber attacks, phishing and online fraud. PwC labelled 2021 as 'the year of the zero-day' as the global online community experienced mass exploitation of vulnerabilities, in highly targeted operations. One such vulnerability, Log4shell in an Apache logging tool "Log4j" allows unauthenticated remote code execution and was widely described as potentially the most severe computer vulnerability in years. The technical services team continues to protect the national DNS infrastructure against ongoing and new external cybersecurity threats, in particular in the face of the continuing global increase in ransomware, malware and DDoS attacks. As a designated Operator of Essential Services the Company continues to make a positive contribution to the safety, security and resilience of the national internet infrastructure.

The data escrow function continued to operate, whereby relevant data sets within the .ie database are extracted, encrypted and transmitted to a third party, to be held in safekeeping and only released to the appropriate authorities in the unlikely event of a catastrophic event occurring at the registry. This added layer of resilience, reliability and protection provides business continuity and peace of mind for government, regulators and stakeholders.

Promoting nationwide digital adoption

In 2021, the Board of Directors approved a €1 million investment in the .IE Digital Town programme over four years. The programme has three elements: – Big Data for small towns; secondly, the .IE Digital Town Awards which was developed to promote awareness, knowledge, use and understanding of the internet in Ireland by its citizens, businesses and communities. It also highlights the benefits and possibilities of the internet and celebrates the digital achievements of local towns.

The third element is the .IE Digital Town Blueprint, a digital readiness framework developed to help town leaders and policymakers embed their own digital town action plans in empirical data. .IE partnered with the Irish Institute of Digital Business at DCU to fully explore the concept and value of the "digital town" through a comprehensive research project. The resultant framework is the first of its kind in Europe and forms the basis of the Blueprint. In designing the programme, the Company has leveraged its many years of experience, research and learnings with its earlier initiatives such as Optimise, Internet Day and Digital Town Gorey (2018) and Sligo (2019).

Policy Advisory Committee (PAC)

During 2021, the substantive work of the Policy Advisory Committee focused on understanding the implications of the Article 23 proposals within the NIS2 Directive and also on the formulation of a policy response to handling technical abuse or criminal abuse (illegality) which uses the .ie domain name system. It is important for Ireland to have this multi-stakeholder industry advisory body. The Policy Advisory Committee follows a 10-step framework known as the .ie Policy Development Process (PDP). The PDP is designed to be bottom-up and consensus-driven. Further information is included on the .IE website www.weare.ie/policy-development-process and in the Policy Development section within this report.

EU Regulatory impact intensifying

Concerned by the level of cyber threats, EU regulatory response has intensified and continues to reach into the domain market, beyond data privacy into cybersecurity. Cyber threats continue to grow in frequency and amplitude. The SolarWinds hack of 2020 was a major shock as it impacted over 30,000 organisations' systems infrastructures and is widely attributed to state intelligence services. Abuses using the domain name system (DNS) are relatively few, yet they continue to grow along with virus and ransomware. During 2020/21 Covid-19 has accelerated the adoption of digital services by citizens, government and corporates. All businesses are increasingly dependent on third party services - from major cloud providers, through the ecosystem of Software as a Service (SaaS) and managed service providers, to a new world of data and analytics service providers.

Already, GDPR was introduced in 2018, which had a significant regulatory impact on the domain industry, particularly on the nature and extent of the data allowed to be disclosed by the WHOIS lookup service for domains. In 2019, Ireland transposed the EU Directive on the Security of Network and Information Systems (NIS), which led to the designation of Member State's ccTLDs as operators of essential services (OES). In December 2020, a proposed extension to the Directive (NIS2) was published by the EC, to address perceived weaknesses in the original Directive, and DNS providers are now to be included. It is clear that .IE will need to allocate increased resources and attention to manage the disruption and cost impact of a rapidly expanding regulatory regime.

Outlook for 2022

Nationally, new registration growth slowed in 2022, as society, business and public services opened-up when Covid-related restrictions were lifted overnight on 22 January 2022. The outcome for the first half of 2022 is 25,539 new .ie domains registered, down by 24.5% compared to the same period in 2021 (33,815 domains).

This moderation in .ie domain growth by mid-2022 is replicated in many ccTLDs across Europe. The future growth is uncertain in this regard.

The work of the .IE Policy Advisory Committee is continuing into 2022 in response to developments impacting ccTLD registries, in particular EU cybersecurity initiatives NIS2 and regulations impacting the Digital Single Market and Resilience of Critical Entities Directive (CER).

As we implement our Strategy 2024, I look forward to working with our Board of Directors and thank the members and the Board sub-committees for their ongoing support and expertise.

Our dedicated staff at .IE deserve huge credit and respect for their outstanding contribution to the continued growth of the .ie namespace, the development of our policies and services and of paramount importance, the protection of our mission-critical systems and the DNS. It is a pleasure to work with such a dedicated team of talented professionals. Together, we will ensure that .IE becomes the trusted standard bearer in terms of online DNS security, standards and innovation thereby evolving in our vital role in Ireland's digital journey.

David Curtin
Chief Executive
29 July 2022



Recognised globally as unique to Ireland

“A .ie domain name makes you or your company instantly recognisable as Irish; it tells the global community you are Irish, and tells the Irish community you are local.”

Oonagh McCutcheon
Corporate Communications Manager, .IE

Board of Directors



Management



Biographies of all Board Members can be viewed on: www.weare.ie/people

- ▲ Audit Committee member
- Investment Committee member
- Governance, Remuneration and Nomination Committee member
- ★ Boards' nominee on the multi stakeholder Policy Advisory Committee

Corporate Governance

The Board of Directors fulfils its fiduciary responsibilities in accordance with best practice Corporate Governance Codes and principles with the objective of ensuring accountability, fairness, responsiveness and transparency in the conduct of the business of the Company.

.IE Domain Registry CLG, trading as .IE is an independent company limited by guarantee, defined as a small company, and is therefore not required to comply with the provisions of Corporate Governance Codes. However, the Board of Directors is committed to ensuring that best practice Corporate Governance operates throughout the Company. Accordingly, the Board has adopted and applied certain provisions of the codes beyond what would normally be regarded as practical, relevant and appropriate for a company of our size and nature.

The Company's unitary Board of Directors is comprised of eight independent Non-Executive Directors, supported by three subcommittees: the Audit Committee; the Governance, Nomination and Remuneration Committee; and the Investment Committee. Directors are appointed to the Board for an initial term of four years: thereafter directors can seek re-election for a subsequent term of three years.

At the end of a continuous term of seven years, directors are required to retire and re-election can only be sought after a gap period of three years. The Board of Directors meets six times per annum to consider a range of Company matters, including reviewing the management accounts, monitoring domain registration and non-renewal rates, discussing strategy and agreeing on the future direction of the Company. The Board also receives regular updates, between meetings if necessary, on a range of business matters including .ie policy, financial, legal, risk, regulatory or corporate affairs.

The Chair ensures that the Non-Executive Directors are appointed to the Board from a range of different professional backgrounds. This ensures diversity of the Board which in turn means that members can effectively reach out to a broad range of stakeholder groups. Diversity of the Board also ensures a better understanding of the different requirements of various stakeholders.

The Chair is responsible for ensuring that all Non-Executive Directors have the necessary knowledge and experience required to discharge their responsibilities. Appraisal of the Board's performance is an important control, aimed at improving effectiveness, maximising strengths and identifying any changes necessary.

ComReg commissioned an independent third-party due diligence review of the Company's Corporate Governance, as an input into the process of developing a potential Regulatory Framework for .ie (Consultation Paper 08/48). The conclusions, published in its formal Response to Consultation 09/01, were very complimentary of the high standards of Corporate Governance at the Company.

Directors' responsibilities

The Board of Directors is the custodian of the Company's values and of its long term vision. The Board provides strategic direction and guidance for the Company.

The directors of the Company carry out their fiduciary responsibilities in accordance with the best practice Corporate Governance Codes and principles. All of the directors are independent and Non-Executive. In accordance with the Company's Constitution, the directors do not have a beneficial interest in the members' funds, reserves or the annual profits of the Company.

The directors are responsible for ensuring that the financial statements have been prepared in accordance with the Companies Act 2014 and Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland", known as the "relevant financial reporting framework". The directors are also responsible for taking such steps as are reasonably open to them to safeguard the assets of the Company and to prevent and detect fraud and other irregularities. Other material financial decisions reserved for Board approval include investments, capital projects and any bank borrowing facilities.

The directors are also responsible for other tasks including monitoring the performance of the Chief Executive Officer, overseeing strategy, monitoring risks (including Brexit, Cyber and Covid-related risks), control systems and governance, monitoring the human capital aspect of the Company (specifically, succession planning, training and remuneration), managing potential conflicts of interest and ensuring that there is effective communication throughout the Company.

The terms of reference have been formalised for each Board committee and these are regularly reviewed and updated. The last formal review was completed in July 2020. Updates on the activities of committees during the reporting period are provided below.

The **Audit Committee** met twice during the reporting period and on these occasions:

- ▶ Met with the external auditors in the absence of the Executive, in accordance with governance best practice.
- ▶ Confirmed that the financial reporting framework that has been applied in the preparation of the financial statements is the Companies Act 2014 and FRS 102 “The Financial Reporting Standard applicable in the UK and Republic of Ireland”, issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland.
- ▶ Approved the annual report and accounts for the year to 31 December 2021 under delegated authority from the Board.
- ▶ Considered the performance of the external auditors and provided feedback to them.
- ▶ Engaged an independent third party to conduct a Risk and Internal Control Review, focusing on the financial and IT internal controls and systems in place to manage and mitigate risk. Reviewed the strategic risk register and reported to the Board on its findings and recommendations.
- ▶ Received updates on the delivery of corrective actions by the Executive.
- ▶ Assessed the effectiveness of the .IE control environment to ensure appropriate attention and resources are in place to achieve risk management objectives including considering the designation of the Company as an Operator of Essential Services.
- ▶ Reviewed whistleblower provisions.
- ▶ Reported to the Board on how it has discharged its duties and key responsibilities.

Standing agenda items at each committee meeting advise of any whistleblowing concerns (none reported during the year).

The **Investment Committee** met five times during the reporting period and on these occasions:

- ▶ Reviewed the investment strategy, returns and portfolio performance, using reports provided by the investment advisors to assess the performance of the various asset classes held within the .IE investment portfolio.

- ▶ Reviewed and updated the investment strategy in the context of the new corporate Strategy 2024.
- ▶ Reviewed and updated the corporate Investment Risk Profile and the desired real rates of long-term returns required on the enlarged portfolio.
- ▶ Provided oversight of the Tender Process to select an Investment Portfolio discretionary manager.
- ▶ Issued a series of recommendations to the Board, and received its approval to proceed with the appointment of an Investment Portfolio discretionary manager and the appointment of Investment Adviser.
- ▶ Reported to the Board on how it has discharged its duties and key responsibilities.

The **Governance, Nomination and Remuneration Committee** was established pursuant to Articles 34 and 57 of the Company’s Constitution for the purpose of monitoring, considering and reporting on matters relating to the nomination and remuneration of Directors and officers, and the governance of the Company. The committee met three times during the reporting period to fulfil its responsibilities set out in its terms of reference and on these occasions:

- ▶ Advised the Board on the effective governance of the Company with the overriding objective of ensuring accountability, fairness, responsiveness and transparency in the conduct of the business of the Company.
- ▶ Issued recommendations in relation to the remuneration of the Directors for consideration by the board and recommendation to the members of the Company at the AGM, in accordance with Article 35 of the Constitution.
- ▶ Issued recommendations in relation to remuneration of the chief executive for consideration by the board pursuant to Article 33 of the Constitution, and monitored the remuneration policies and framework for the senior staff to ensure they support the strategic objectives, culture and values of the Company.
- ▶ Nomination - consideration of nominations for appointment to the Board did not arise during the reporting period, as there were no vacancies, other than the ongoing vacancy reserved for an official of the Department to be nominated by the Minister for Communications, in accordance with Article 4 of the Constitution.



Equality, excellence and endeavour

“We strive to be fair, equitable and transparent, and to balance the rights and responsibilities of all stakeholders. We operate with integrity.”

Patrick Bates
Company Secretary, .IE

Internet Governance

The internet needs Guardians, Guides and Stewards.

We are promoting and encouraging national Internet Governance through consumer protection protocols, policies and security programmes that coordinate and shape national cyberspace, in line with international best practices.

At .IE, good Internet Governance permeates throughout our strategic priorities. We seek to protect stakeholders and to adopt policies, processes and procedures that take account of the need for balance, having regard to the respective roles and responsibilities of our registrants, Registrars and Internet users.

We operate the Managed Registry model, validating .ie domain holders in advance. We check out who's behind the .ie website making it safer for children and consumers. Our locking service prevents unauthorised changes to important .ie addresses and stops web hijacking. We offer a DNSSEC service, providing a more secure DNS which reduces phishing risks.

We have adopted a range of policies and rules to protect consumers, safeguard registrants and promote good internet governance. You can read about our range of policies on our dedicated policy page on our website, www.weare.ie/our-policies.

We've established consumer protection protocols with regulators to address online illegality and to permit 'take-down' of websites under certain circumstances. We operate a Regulatory Authority Protocol for dealing with illegal content on .ie websites. The regulatory authorities who we engage with include the ODCE, the CCPC, the Central Bank, and ComReg.

We operate Governance systems, which are transparent and professionally run to the highest standards. The quality of our financial reporting and transparency has been acknowledged by the Leinster Society of Chartered Accountants, where we were shortlisted many times in their annual awards competitions.

We introduced an easy to use Dispute Resolution service (ADRP) "Fair play and a fair hearing". We use independent third party dispute resolution agencies – WIPO and EU Net Neutrals. We've proactively introduced Anti-Abuse measures, in cooperation with stakeholders (via our Policy Advisory Committee) and our Registrar channel.

RFCs compliance – IETF standards and protocols – we adhere to RFCs which document the official Internet specifications, communications protocols and procedures published by the Internet Engineering Task Force, www.ietf.org.

We regard ourselves as one of the guardians of national critical internet infrastructure. Like all country-code registries across Europe, we are designated as an Operator of Essential Services (OES) under the NIS directive

Our programmes are dedicated to proactively fighting malware and phishing in the .ie namespace. Protecting consumers, our customers and SMEs is of the utmost importance to us and our Registrars.

We have a 20-year track record of investing in and developing the national domain DNS infrastructure, which is robust, resilient and has operated with no downtime whatsoever.

We welcome stakeholder dialogue and democracy through our multi-stakeholder and consensus-driven Policy Advisory Committee.

Global coordination

ICANN's role is to oversee the huge and complex interconnected network of unique identifiers that allow computers on the internet to find one another. ICANN, the Internet Corporation for Assigned Names and Numbers, was formed in 1998. Headquartered in Los Angeles, California, it is a not-for-profit partnership of people from all over the world. ICANN's primary principles of operation have been described as helping preserve the operational stability of the internet; to promote competition; to achieve broad representation of the global internet community; and to develop policies appropriate to its mission through bottom-up, consensus-based processes.

ICANN does not control content on the internet. It cannot stop spam and it does not deal with access to the internet. But through its coordination role of the internet's naming system, it does have an important impact on the expansion and evolution of the internet.

ICANN has external as well as internal accountabilities. Externally, ICANN is an organisation incorporated under the law of the State of California in the United States, so it can be sued in court. ICANN is also a non-profit public benefit corporation and its directors are legally responsible for upholding their duties under corporate law. Internally, ICANN is accountable to the community through its bylaws, and its representative composition of the ICANN Board from across the globe.

Governments can participate in ICANN's work programme via the Government Advisory Committee (GAC). At the ICANN 52 meeting in Singapore in February 2015, the GAC welcomed Ireland as a new GAC member (along with other late arrivals such as Kazakhstan and Mauritania). Membership of this influential committee was a major milestone for Ireland Inc in 2015, as it gives Ireland a voice on trans-national internet policy matters.

In October 2016, ICANN was freed from U.S. government oversight and on 6 January 2017, an extremely important change in the governance of the DNS took place, with the completion of the transition of the IANA stewardship to ICANN.

IANA is responsible for management of the DNS root zone. Part of its tasks includes "evaluating requests to change the operators of country code domains, as well as day-to-day maintenance of the details of the existing operators.and maintaining their technical and administrative details". The Root Zone Database represents the delegation details of top-level domains, including gTLDs such as .com, and country-code TLDs such as .uk. As the manager of the DNS root zone, IANA is responsible for coordinating these delegations in accordance with its **policies and procedures**.

The legislative framework in Ireland

The legislative framework in Ireland is well developed. The Communications Regulation (Amendment) Act, 2007 came into force in 2007. This Act essentially transfers the powers previously available to the Minister for Communications under the Electronic Commerce Act, 2000 (but never exercised by him) to ComReg, with some limited but important amendments and additions.

As an input into the process of developing a potential regulatory framework for .ie, ComReg launched a public consultation process on the .ie namespace and published its formal Response to Consultation, Document 09/01. ComReg's related press release stated that:

- ▶ ComReg will, by way of regulation, appoint .IE as the authority authorised to register .ie domain names in accordance with Section 32(4) (a) of the Act of 2007.
- ▶ .IE will set up and maintain a Policy Advisory Committee representative of all stakeholders with a focus on more transparent policy development.
- ▶ .IE will continue to adopt the "managed approach" to .ie registrations to ensure continued protection for .ie domain name holders and consumers.

In this context, the Company looks forward to a continuing working relationship with ComReg.

International Internet Governance

The 16th annual meeting of the Internet Governance Forum (IGF) was hosted by the Government of Poland in December 2021, under the overarching theme: **Internet United**. The IGF was established by the United Nations following the World Summit on the Information Society (WSIS) in 2006. The UN's ten-year review concluded successfully with the adoption of the WSIS+10 Resolution on 16 December 2015. It reaffirmed three core elements of the 'Tunis compromise': First, it extended the IGF mandate for a further 10 years and reaffirmed its underlying architecture, meaning that internet governance is addressed under the UN umbrella, but in a multi-stakeholder manner. Second, it retained the roles and responsibilities of the stakeholders as outlined in the Tunis Agenda. Third, it maintained the element of ambiguity around an enhanced cooperation arrangement, which allows for different interpretations. While there is no negotiated outcome, the IGF informs and inspires those with policy-making power in both the public and private sectors. The 17th IGF, under the overarching theme **Resilient Internet for a Shared Sustainable and Common Future**, will be held in Addis Ababa, Ethiopia in November 2022. .

Policy Development

.IE mirrors the international multi-stakeholder philosophy and principles within its structures and has adopted a bottom-up, consensus-driven, and consultative approach to all .ie namespace policy matters.

Developments in 2021

During 2021, the global policy agenda was dominated by the assessment of policy options in handling online abuse which uses the domain name system (DNS). Through its multi-stakeholder structures, ICANN engaged with law enforcement agencies, intellectual property bodies, Internet service providers and the at-large community to discuss the issues arising and attempt to develop solutions. At the European level, in addition to anti-abuse, the agenda was shared by the Article 23 provisions in the NIS2 directive.

The substantive work of the PAC during 2021 continued to monitor negotiations on NIS2, but the real focus was on developing a policy response to handling technical abuse and criminal abuse (illegality) which uses the domain name system (DNS). In the process, some basic principles were established, including: to be proactive with regulators and law enforcement rather than reactive to specific court orders; respond with urgency based on the severity of the alleged abuse. After the initial impact assessment by the PAC, the analysis phase addressed the issues in two separate work streams - technical abuse online and secondly, addressing criminal abuse (illegality) online.

Proactively tackling online technical abuse which uses the .ie DNS

There was full consensus among PAC members on the policy response to proactively identify online technical abuse issues, such as .ie websites that are hosting malware, phishing or botnets. It was agreed to engage a third party to proactively seek out technical abuse, and inform the registrar/hosting provider, who can assist their customers, whether SMEs or citizens, who are innocent victims of the cyber attack, in rectifying the situation.

The Company agreed to finance the reasonable costs of this service to provide internet security monitoring services. The service includes cybercrime disruption, application security testing and automated vulnerability scanning. The engagement with and involvement of the accredited Registrar channel was a critical success factor in designing and operating the service.

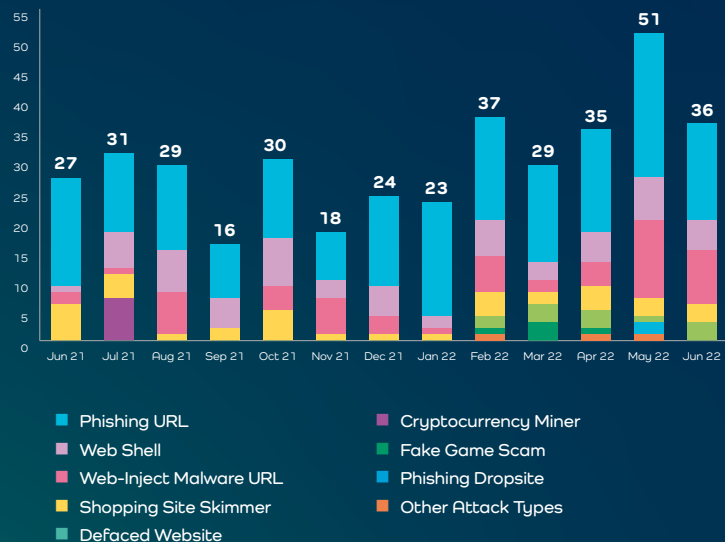
The chart below illustrates the number and type of cybersecurity attacks which were identified in the year to June 2022. While the number represents a tiny percentage of the database of 330,000 .ie domain names, the .IE Board considers it important to have helped 386 victims, many of whom were unaware of such phishing exploits etc on their websites.

Chart 1: Internet security monitoring services for .ie domains

Number of cybersecurity attacks identified

386

June 2021 - June 2022



Source: Netcraft monitoring service of .ie domains

PAC – operation and modus operandi

The Policy Advisory Committee (PAC) was established by the Company in July 2014, to provide a forum to consider and provide advice to the .IE Board of Directors on policy change requests. The PAC operates under its specific Terms of Reference and follows the published 10-step Policy Development Process (PDP). The PAC considers all policy change-requests submitted for review, and where consensus is reached for a change, it also advises on the implementation of such policy change-requests.

The members of the PAC are stakeholders with an interest in the .ie namespace and its policies. The membership includes representatives from eligible organisations. That list was extended in 2019, with the welcome addition of CyberSafeKids and IRISS (the Irish Reporting and Information Security Service), who joined the .ie accredited Registrars, the Department of Communications (DECC), Enterprise Ireland, the Small Firms Association (SFA), the Law Society, the Internet Service Providers Association of Ireland (ISPAI), the Department of Enterprise (DETE), the Irish Computer Society (ICS) and the Association of Patent and Trademark Attorneys (APTMA). Discussions with regulatory bodies or public consultations take place when these are considered useful by the PAC working group which is considering the topic.

The Committee convened on four occasions in 2021, using Zoom, due to the Covid-related restrictions. The PAC has maintained the strong levels of meeting attendance and engagement evident since its inaugural meeting in 2015. This has been vital to the progression of the various policy change discussions, as has the diverse expertise, experience and knowledge of the Committee members. The commitment of the PAC in adhering to the bottom-up, consensus-driven, multi stakeholder-led PDP has been invaluable in the progression of the policy changes. Entering its eighth year of operation, the PAC expects to continue to build on the achievements and milestones of previous years.

Tackling online criminal abuse which uses the .ie DNS

The policy response to addressing criminal abuse (illegality) involved considerable and constructive engagement from PAC members. Criminality or illegality online can include website content about human trafficking or child abuse and also includes financial crime such as fraudulent inducement, scams or fake websites. Thankfully, these are very rare on .ie websites - thanks largely to the Managed Registry Model, which incorporates pre-registration know your customer processes. In early 2020, representatives from law enforcement made a formal presentation to the PAC, informing members that there were no notable abuse concerns within the .ie namespace, and complimented channel participants, saying there was no notable friction with current ad hoc takedown and suspension procedures.

Subsequently, there was consensus that criminal abuses, when they arise, can have life-altering impacts on victims, and that there is a responsibility on all internet stakeholders to engage with law enforcement to collaboratively, proactively prevent and mitigate occurrence of these crimes to minimise the number of victims. The importance of following due process was repeatedly emphasised as a critical success factor in developing an appropriate policy response.

Discussions and consensus building regarding alternative policy responses progressed during 2021 and into 2022, as PAC members and stakeholders continued to monitor and evaluate international developments and initiatives. Discussions continued with An Garda Síochána to build a suitable protocol with the registry and registrars to suspend/delete/takedown .ie domains which meet certain criteria and circumstances.

“In this EU Digital Decade, the .IE PAC is effectively a national internet governance forum, with committee members from government, industry, employer representative bodies, the legal profession, child protection and the policy community.”

Fergal O’Byrne,

Chairman, .IE Policy Advisory Committee

IIA Internet Hall of Fame Inductee 2015

Technical excellence

.IE is designated as an Operator of Essential Services (OES) under the EC NIS Directive. The .IE Technical Services team provides a range of services which underpin the .ie namespace, which is a critical part of Ireland’s national internet infrastructure.

These services are important for every business, individual, community or government service which uses the .ie internet address, and includes:

- ▶ Operating an essential service – the national domain name system (DNS) for Ireland.
- ▶ Managing and maintaining the database of .ie domain names.
- ▶ Providing the WHOIS directory and online lookup service.
- ▶ Running the zone file update process, 12 times every day.
- ▶ Implementing and promoting internet security and standards.
- ▶ Providing the DNSSEC infrastructure, for increased protection of domains.
- ▶ Providing a domain locking service, to protect valuable .ie brands.
- ▶ Adopting policies that proactively deal with technical abuse which uses the DNS.
- ▶ Working with partners who share our passion for cybersecurity.

High availability mission-critical systems and services

Operating the national registry for the .ie namespace requires the highest levels of security, stability and resilience of networks and infrastructure. Our Technical Services team manages and maintains the registry’s high availability systems, mission-critical services and infrastructure in accordance with international best practices.

Managing the database of .ie domain names

Our Technical Services team manages and maintains the national registry of .ie domain names. This database is the authoritative record of who has the “right to use” a particular .ie domain name.

The database is updated, in real time, for changes requested by Registrars, acting on the instructions of Registrants. Registrars’ APIs can submit requests 24/7/365, database uptime and resilience is of critical national importance.

World class platform

2021 was the first full year of operation of our new domain registry management platform, which we licensed and customised during 2020, in partnership with the Canadian registry. Codenamed **TITAN**, it

provides our Registrars with more powerful and flexible domain management tools as well as a modern, user-friendly interface. It uses the Extensible Provisioning Protocol (EPP standard) and has greater functionality and flexibility than the pre-existing Core Registry System (CRS) which served us well since 2013. The new system will ensure that our technical systems can support long-term growth in .ie domains. This standardisation of processes will future-proof the core Registry platform. It has a **Console** for Registrars, a Registry Console for .IE staff, complete with an email communications package and a data export facility for invoicing. **Deskpro** has been integrated for ticket processing and provides a community hub feature for Registrars to request feature changes. These systems represent a significant financial and operational commitment by the Company to its Registrar customers.

WHOIS directory

Technical Services operates and manages the WHOIS directory, an online lookup service which provides valuable information on every .ie domain name. This service is provided free of charge on our website, www.weare.ie. It is important to note that we do not show an individual’s personal information, in accordance with GDPR principles and requirements. Access is controlled with daily limits and fair usage policies apply. During 2020, the usefulness of the WHOIS service was extended with the addition of an abuse contact facility, in the public interest.

Internet security and standards

We adhere to RFCs which document the official Internet specifications, communications protocols and procedures published by the **Internet Engineering Task Force** (IETF), an open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet.

“The expansion of remote working fuelled an increase in new vulnerabilities using the DNS. Companies have to be extra vigilant and upgrade their DNS Security.”

Mick Begley
Chief Information Officer, .IE



Cybercrime monitoring

“.IE funds internet security monitoring services which help innocent victims, such as SMEs, who might be unaware that they have experienced a cyberattack.”

Mick Begley
Chief Information Officer, .IE

The .ie Domain Name System (DNS) infrastructure explained

The Domain Name System (DNS) infrastructure for .ie includes a network of nameserver locations around the globe, illustrated in Chart 2 below. The lookup or resolution service for .ie domain queries is performed at all nameserver locations. A critical component of this nameserver infrastructure is the use of ‘Anycast’ load balancing technology provided to us by the secondary nameserver service providers. This ‘Anycast’ facility protects against a Denial of Service attack (DDoS attack) by allowing the geographical distribution of .ie domain lookup requests to any available DNS resolver for redundancy. This effectively localises the potential adverse effects of the DDoS attack, by preventing it spreading across the entire network. For the .ie namespace, this means increased system efficiency,

faster response times, reduced potential for outages, and increased resilience against deliberate or malicious attacks.

It is important to note that even if our physical locations, staff and primary nameserver were wiped out (an unlikely scenario) and no action was taken to invoke emergency plans (an even more unlikely scenario), then service to .ie domains would continue for a minimum of 30 days without any intervention. Obviously, new registrations, changes and deletions would not take place but crucially, existing domain holders’ websites and email would continue to function normally during this time, using the secondary nameserver locations around the world.

Chart 2: Security, stability and resilience of the .ie global nameserver network



The number of nameserver locations

.IE - Dublin, Ireland a.ns.ie b.ns.ie	2	Netnod c.ns.ie d.ns.ie	69	BT - Dublin Ireland g.ns.ie	1	Afnic - Paris Region, France h.ns.ie	2	IPCOM Rcodezero i.ns.ie	24
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Partners in keeping Ireland online

.IE works closely with key stakeholders and partners in keeping Ireland online and securely connected to the global DNS infrastructure.



HEAnet

HEAnet is Ireland's National Education and Research Network, providing high quality internet services to Irish universities, Institutes of Technology and the research and educational community. HEAnet provides a high-speed national network with direct connectivity for its community to other networks in Ireland, Europe, the USA and the rest of the world. Established in 1984 to promote the interchange of information electronically within third level education, HEAnet plays a critical role in establishing Ireland as a global centre of excellence in internet activity.

INEX

Founded in 1996, INEX is a neutral, industry-owned association that provides IP peering facilities for its 109 members. INEX's objective is to provide high-speed, reliable and resilient IP traffic exchange facilities for both Irish and international organisations, allowing them to route IP traffic efficiently thereby providing faster, more reliable and lower latency internet access for their customers. The INEX switching centres are located in seven secure data centres in Dublin and Cork. The switches are connected by dedicated resilient fibre links.

DNS-OARC

The DNS Operations, Analysis, and Research Center (DNS-OARC) brings together key operators, implementors, and researchers on a trusted platform so they can coordinate responses to attacks and other concerns, share information and learn together. DNSOARC has five key functions: information sharing, operational characterisation, holding workshops, analysis, and providing tools and DNS services. DNS-OARC members include TLD operators, implementors such as ISC (BIND), NL NetLabs, researchers and security organisations.

ComReg

ComReg is the statutory body responsible for the regulation of the electronic communications sector and the postal sector. It is the national regulatory authority for these sectors in accordance with EU law which is subsequently transposed into Irish legislation. ComReg is responsible for promoting competition, protecting consumers and encouraging innovation. It was given regulatory responsibility for the .ie namespace in 2007 when the Oireachtas transferred powers which the Minister for Communications had previously obtained under the E-Commerce Act in 2000.

RIPE Network Coordination Centre

RIPE is an independent, not-for-profit membership organisation which supports the infrastructure of the internet through technical coordination. It is one of five RIRs that collectively serve the global internet community. All RIRs are allocated blocks of internet resources by the Internet Corporation for Assigned Names and Numbers (ICANN). These blocks are broken down into smaller blocks and allocated to members. It's most prominent activity is to act as the Regional Internet Registry (RIR) providing global internet resources and related services (IPv4, IPv6 and AS Number resources) to members in its service region. It maintains a registry of all allocated internet number resources in its service region, the details of which can be found in the RIPE Database. This helps to maintain a well organised and efficient internet, and also helps safeguard the number resources in use.

CENTR (Council of European National Top-Level Domain Registries)

CENTR is the association for exchange, dialogue and innovation of country code domain registries in Europe. The objectives of CENTR are to promote and participate in the development of high standards of internet Country Code Top-Level Domain Registries (ccTLDs) for the benefit of its members and the internet. The organisation has a European focus. Together with similar organisations which focus on other regions of the world, CENTR achieves its objectives through consensus building, coordination and collaboration; respecting cultural and historical variations amongst the ccTLDs and their Local Internet Communities.

National Cyber Security Centre

The National Cyber Security Centre (NCSC) was founded in 2011 and is an operational arm of the Department of the Environment, Climate and Communications (DECC). The NCSC is responsible for advising and informing Government IT and Critical National Infrastructure providers of current threats and vulnerabilities associated with network information security. The NCSC will also be designated as the National Competent Authority single point of contact for the purposes of the EU Network and Information Security Directive (NIS).

Data analytics and visualisation

In Strategy 2024 we set a multi-year strategic objective for .IE to create a centre of excellence in three areas; providing data metrics and data visualisation; providing online self-assessment security tools; and supporting undergraduate applied research on internet-related topics.

In 2021, we started to lay the foundations by forming Team Xavier.

Our .ie database allows us to provide benchmarks and data on how Ireland is thriving online – in terms of website usage and cybersecurity.

Starting in October 2021 we examined the adoption of security standards for email and websites in the .ie namespace. This includes retrieving the main web page for each .ie domain, verifying if it supports HTTPS and other security features, and looking into the DNS for signals of new security practices. This allows us to identify each domain and their capabilities, and potentially, weaknesses. Our plan is to continue doing these collections on a regular basis in order to keep the community informed. In the future, as we enhance the collected data with machine learning, we will use these results to further engage with key stakeholders so as to help drive industry best practice when it comes to the .ie namespace.

The results are currently shared with stakeholders in our blogs on our website. In 2021, we shared a deep look into a variety of metrics publicly visible for domains, focusing on web security (HTTPS) and email security.

Web Security

We have an explorer specially dedicated to detecting HTTPS support, in order to gain a deep understanding of its usage and determine if a domain is using a robust configuration. Apart from checking for support, we validate the certificate received, test for different versions of SSL and TLS, and identify the use of good and weak ciphers, public key certificates and other security features. We have three high-level categories:

- ▶ Domains not supporting HTTPS, where the probing failed for a number of reasons: DNS error, the server being probed rejected the connection, or timed out, or the security handshake failed. This represents 45% of the domains.
- ▶ Domains supporting HTTPS, but will eventually fail if a user tries to use it because the domain is using self-signed certificates, or expired certificates. This represents 15% of the domains.
- ▶ Domains with working HTTPS represent 40% of the domains. For this category, we explore the most relevant Certificate Authorities (CA), with

Let's Encrypt taking the first spot with 51,732 domains or 40.4% of all .ie domains with working HTTPS. That's a strong market position, and potentially a challenge considering the issues this CA had recently with the expiration of their root certificate.

It's refreshing to discover that most of the domains support modern TLS versions like 1.2 and 1.3, but it's concerning to observe 40,923 domains supporting TLS 1.0 which was deprecated in March 2020.

There are a number of extra web security features that, according to experts, are good to have as they increase the robustness of configuration. Some of these newer recommended settings include; Use Strong Key Exchange; Use OCSP Stapling; Use HSTS; and settings which may be more familiar to readers:

- ▶ Use CAA (Certificate Authority Authorisation), a DNS record that signals which Certificate Authorities are allowed to issue certificates for the domain.
- ▶ Use CSP (Content Security Policy), a mechanism that provides a policy to restrict mixed content (secure and insecure).

Email security

The need for and take-up of email security is a somewhat controversial topic. Our data analytics tools can identify if a .ie domain has enabled a feature that makes email more secure against spoofing. The findings are shared in our blogs. Clearly, there is a need for a global cross community effort in this area.

This close look into high-level security features and web usage of .ie domains leaves us with a higher interest in seeing these metrics improve. So far, changes are happening organically and slowly, and security levels of adoption are low.

“We are open to sharing our information in detail with our stakeholders to shift the needle towards better outcomes: high adoption of security features in the .ie namespace.”

Sebastian Castro
Chief Data Scientist, .IE

Insights – research and reports

.IE is committed to providing relevant and useful research and insights to guide government policymakers and stakeholder representative bodies.

It is imperative that government policy makers and stakeholder representative bodies have access to accurate data upon which to base their decisions.

Our research and insights reports are useful references to help them design and implement appropriate supports for Irish SMEs to digitise their sales and business processes. In 2021 .IE commissioned and published 3 key reports – two editions of the **.IE Domain Profile Report** and the **.IE Tipping Point Report**.



.IE Domain Profile Report

The bi-annual .IE Domain Profile Report analyses the key trends and statistics in .ie domain registrations over time. It examines the entire database of .ie domains while also measuring the growth in registrations at regional and county levels.

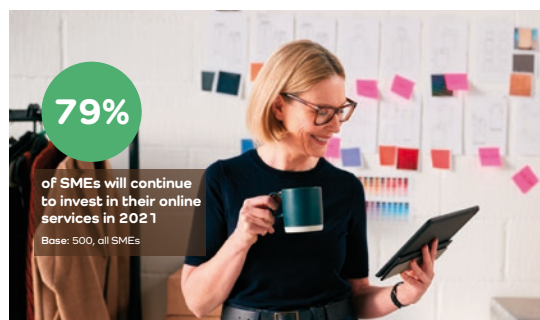
The 2021 edition revealed the impact of the Covid-19 pandemic on new .ie registrations and analysed the counties and countries of registered domain holders. We also examined the broader .ie ecosystem, including domain usage, the breakdown of Content Management System (CMS) usage by .ie domain owners, .ie domain security features, keyword usage in new .ie domain registrations, .ie website categorisation and .ie market share and international growth.

These reports provide insights into digital adoption and digital intent at a county level as the findings include an indication of a narrowing of the urban-rural digital divide. The Central Bank also recognises new .ie registrations as a forward indicator of economic health. Findings from the reports have been widely used by media outlets across the country.

.IE Tipping Point Report

The COVID-19 crisis has been a tipping point for Ireland for many reasons. The .IE Tipping Point Report 2021: *Irish e-commerce and digital business in the Covid vaccine era*, assessed the attitudes and responses to the Covid-19 pandemic of 1,000 Irish consumers and 500 retail and consumer-facing professional services SMEs. This insightful research, following on from the first in the trilogy in 2020, was extremely useful for policymakers.

The report highlighted that Covid was accelerating major trends in e-commerce and digitalisation. Behaviours and ways of working that boost sales, cut costs or increase convenience are likely to become ingrained. A greater number of SMEs accept that their business model will probably be permanently changed as a result of the pandemic.



Findings of the report revealed that Irish consumers were eager to support local businesses through the pandemic, but other factors, particularly price and range, remained prominent. They viewed international retailers as more competitive on price, range and online experience, but viewed Irish SMEs as more reliable and trustworthy. We advised Irish SMEs to focus their digital investment in these areas of competitive advantage, and to invest their resources in improvements to online customer experience and service, which consumers explicitly value.

The report also demonstrated the changing consumer behaviours, with more spending online. 58% said they would prioritise online spending over in-store in 2021.

On a positive note, there was also growing evidence of SMEs' understanding of Irish consumer needs. A remarkable shift was seen in the number of SMEs that invested in their online presence (up from 21% in 2020 to 55% in 2021), and a growing cohort of business owners see the future of retail in e-commerce. The majority recognise that the future of their business depends on adding some kind of digital offering. For those SMEs who did invest it paid off, 78% of SMEs that have invested in their online services said they were busier than or as busy as before the Covid crisis, up from 46% in 2020.

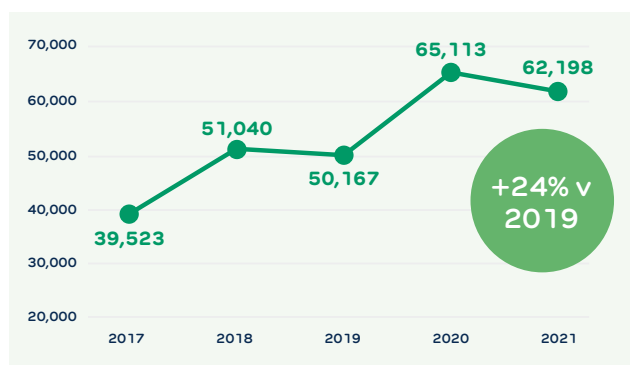
Growth and expansion of the .ie namespace

During the pandemic in 2020 and 2021, over 127,300 new .ie domains were registered. These new registrations reflected the impact of Covid-19, which acted as a digital accelerant for businesses.

Our .IE research and reports for 2020 and 2021 provide empirical evidence of an unprecedented mass mobilisation of digital across every part of Irish society and economy. Businesses migrated online, many for the first time, in direct response to the lockdowns. In our surveys, businesses said they realised that having an online presence, and in many cases e-commerce capabilities, would at the very least minimise the damage of reduced or non-existent footfall but also open new markets and create new ways to interact with customers. Encouragingly, new .ie registration growth was strong across the entire country, not just in urban centres.

Across 2021 and 2020, it was clear that Irish businesses indicated their digital intent. Although CRO data on new company start-ups showed a fall in 2020 because of the pandemic, our data indicates that entrepreneurs and new businesses were taking a 'digital-first' approach and ensuring that they secured their preferred online identity with a .ie domain name, before they registered their company as a legal entity.

Chart 3: New .ie domain registrations



The story of Covid

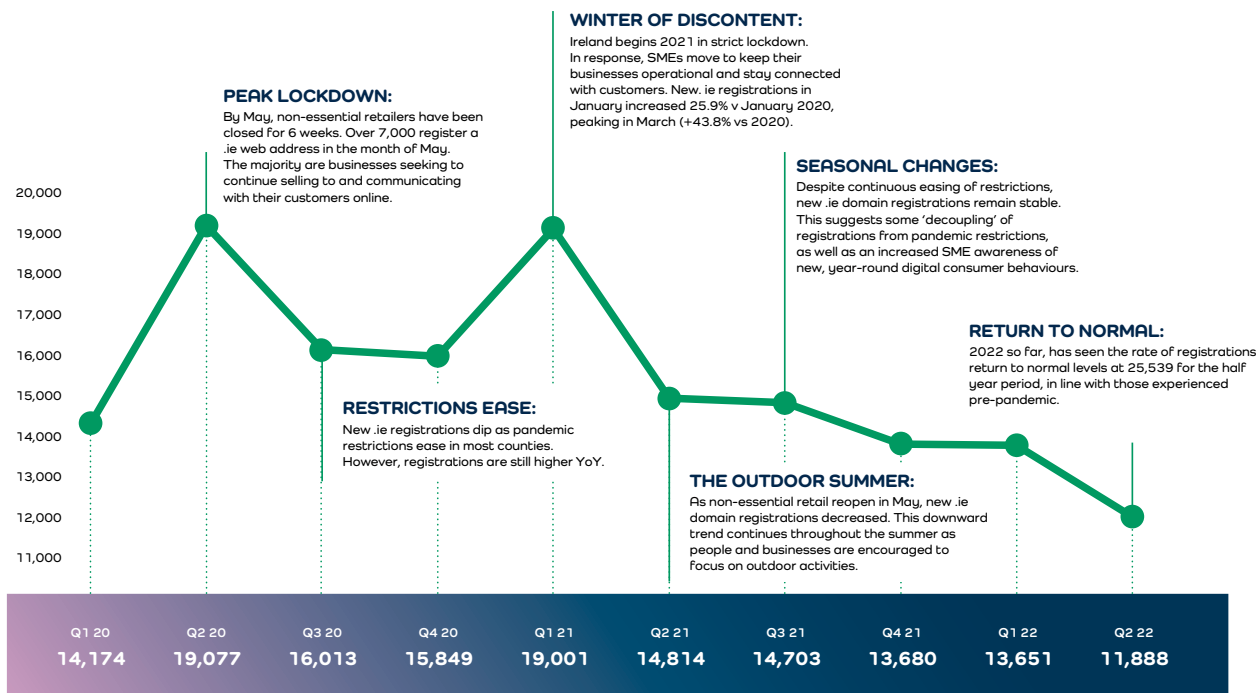
65,113 new .ie domains were registered in 2020, the highest ever figure and an almost 30% increase on 2019. 2021 followed on with 62,198 new registrations, the second best year, with H1 2021 the strongest half-year period on record.

Peaks and troughs in new .ie registrations in 2020 were broadly linked to the Government's pandemic restrictions. As our timeline in Chart 4 on the next page shows, for the first half of 2021 a strong correlation between the course of the pandemic and new .ie domain registrations continued. Ireland began 2021 in strict lockdown; non-essential retail was closed until mid-May. As a result, there was an uptick in new .ie domain registrations in January, February and March, a visible indication of the mass movement of SMEs, including hospitality businesses, online. A website ensures that a business can continue to communicate with and sell to its customers and clients, even if its physical premises are closed.

However, despite the difficult start, 2021 was not 2020. Indeed, by late summer and early autumn, strong vaccination rates and easing of restrictions seemed for the first time to break the previously strong connection between the introduction or relaxation of pandemic restrictions and the rate of new .ie domain registrations. This tentative decoupling suggests two things. First, the Irish economy, for the most part, exited the 'acute response' phase of the pandemic. As a result, businesses factored-in the uncertainty of restrictions and reduced trading ability to their commercial operations and planning. Second, SMEs were no longer simply 'reacting' to the pandemic. Instead, with changing consumer behaviours, SMEs were changing with them. Businesses were investing in new websites, integrating e-commerce technology, and making use of productivity-enhancing tools all year round.

In 2022, following a surge in registrations during the pandemic and government-imposed restrictions, a slowing down in the rate of new .ie registrations signalled a return to normal growth levels seen pre-pandemic.

Chart 4: Timeline of digital intentions during the lockdown years (Number of .ie domains registered)



Market share

The .ie domain now accounts for 52.6% of all domains hosted in Ireland, followed by .com (30.8%) and .uk (7.6%). Since 2010, .ie gained over 12 percentage points in market share of Ireland’s hosted domains from .com, indicating that .ie is the domain-of-choice for Irish business and citizens. During the pandemic, a local .ie web address has been a lifeline, a way to mitigate the worst effects of the physical lockdown. It has advantageously positioned many businesses for a more digitally integrated post-Covid-19 economy. Because every applicant is validated, a .ie website is a great way for Irish businesses to demonstrate their trustworthiness to customers.

Geographical analysis of the database

The geographical analysis of the .ie database at the end of December 2021 indicated that registrants were from: the Republic of Ireland – 295,979 (90%); Northern Ireland – 4,756 (1%); and International – 29,373 (9%). Registrants with addresses in Great Britain comprises the majority of internationally registered .ie domains.

As part of the .ie registration process, applicants for .ie domains in foreign countries will have provided evidence of a proven connection to Ireland and so the registered owner is always traceable, an important issue for consumers and authorities. They either have customers in Ireland or have provided evidence of another type of professional or personal connection to Ireland.

International review

There are more than 240 country code top-level domain extensions (ccTLDs) worldwide, including .ie. Compared to twenty-three other European countries, Ireland ranks 18th, with 66 country code domains per 1,000 of population. Using this metric, Ireland ranks

ahead of or is comparable to, European countries with larger populations, including Italy (59 .it domains per 1,000), France (57 .fr domains per 1,000), Spain (42 .es domains per 1,000). However, Ireland ranks behind several European countries with similar populations, including Denmark (235 .dk domains) and Norway (154 .no domains). Our nearest neighbours in the UK have 165 .uk domains per 1,000 of population. Commentators attribute this to Ireland’s slow start in building out early internet infrastructure, compared to European neighbours, which had many competing internet service providers and cable operators.

Supporting the business community

Throughout 2021, we continued to support the business community in Ireland with a range of initiatives and sponsorships. Our objective is to help them celebrate excellence in digital processes, e-commerce and digital marketing. Indirectly, this helps to promote the .ie domain name and to encourage internet usage. We sponsored the Small Firms Association (SFA) National Small Business Awards. These awards celebrate the achievements of small business in Ireland and recognise the vital contribution of the small business community to the Irish economy. We also supported the Energia Family Business Awards in the category of Tech Family Business of the Year.

Additionally, by providing useful, relevant and informative digital content, we continued to build and strengthen relationships with key SME and micro-enterprise representative bodies such as the Local Enterprise Offices, Retail Excellence, Digital Business Ireland, Guaranteed Irish, Hardware Association of Ireland and the All Ireland Business Foundation. By working with these groups, we engage with their networks to promote the benefits of digital adoption and e-commerce.

Accredited Registrars

Accredited Registrars are a key part of the .ie domain service delivery process.

An accredited Registrar is a company authorised to act as an agent on behalf of Registrants (customers) who need .ie websites and/or .ie email addresses. They are usually hosting providers who operate across a number of different business sectors, offering a wide range of services to their target markets. Most accredited Registrars will offer .ie domains as part of a bundle of services (hosting, email, storage, website builder, security products etc.) usually for an ongoing monthly fee. Links to many of our accredited Registrars' websites can be found on our website at www.weare.ie/accredited-registrar-list. At the end of 2021, the channel comprised 121 accredited Registrars.



Profit-for-good

The Company operates a profit-for-good mandate, and one of .IE's strategic priorities is to support and serve the needs of the local internet community. In 2021, we launched our new initiative, the .IE Digital Town Programme with a €1 million investment over 4 years to enable a nation of digital towns.

The .IE Digital Town programme was developed to foster digital enhancement and adoption in Ireland, helping businesses, citizens and communities to harness the benefits of the Internet and to thrive online. The programme has evolved from previous initiatives that we have run, such as Internet Day. We are committed to advancing Ireland's Internet ecosystem by working through multiple partnerships to enable this to become a reality.

The programme comprises three elements: Big Data for small towns, the .IE Digital Town Awards and the .IE Digital Town Blueprint. Two specific pillars of activity are currently underway – the Awards, and the Blueprint.

.IE Digital Town Awards 2021

The Awards promote awareness, knowledge, use and understanding of digital in Ireland by its citizens, businesses and communities. They also highlight the benefits and possibilities of digital, and celebrate the digital achievements of local towns, big and small.

The Covid-19 pandemic and the resulting restrictions have had an enormous impact on our country. Digitalisation has offered the opportunity to create new ways of doing things. It promotes innovation and breathes new life into local communities, making them more attractive places to live and work, as well as contributing to a more sustainable future.



Pictured (l-r) with Maggie Breen from Dingle Creativity and Innovation Hub were Oonagh McCutcheon, National Director, .IE Digital Town Programme; David Curtin, Chief Executive .IE with Minister Damien English, Minister of State for Business, Employment and Retail

In 2021, we held our inaugural awards with a €100,000 prize fund. The independent judging panel selected Dingle Peninsula as the winner of the top Award, which was presented by Minister Damien English, Minister of State for Business, Employment and Retail at a virtual awards ceremony.

.IE Digital Town Blueprint

To help town leaders and policymakers embed their own digital town programmes and action plans in empirical data, .IE partnered with The Irish Institute of Digital Business at DCU to fully explore the concept and value of the "digital town" through a comprehensive research project. The resultant digital readiness framework is the first of its kind in Europe.

In 2021, we commenced discussions with the Department of Rural and Community Affairs (DRCD), and in early 2022, DRCD made provision for funding a .IE Digital Town Blueprint assessment for the 26 towns selected to prepare Master Plans as part of the **Town Centre First** initiative. This work is now underway and will be completed by the end of 2022.

The Blueprint reports will provide data and actionable insights for decision-makers in these towns, and others like them, as they consider digitalisation initiatives that positively impact the local economy, public services, communications, social cohesion, and overall quality of life.

The local internet community

Through our memberships and sponsorships of industry awards and events, the Company usually provides a modest level of financial support to the local internet community. In 2021, we sponsored the BT Young Scientist and Technology Exhibition, supported Cyber Ireland and continued our partnership with Digital Business Ireland, contributing to their events and committees.

The Company has provided free .ie domain names to over 7,000 registered charities, who have a valid CHY number issued by the Revenue Commissioners. This is done in co-operation with a number of our accredited Registrars.

Five Year Summary

Extract from the audited Financial Statements (financial figures only)

Profit and Loss		Year to 31 Dec 2021	Year to 31 Dec 2020	Year to 31 Dec 2019	Year to 31 Dec 2018	Year to 31 Dec 2017	
		€	€	€	€	€	
Registration Revenue		4,117,918	3,773,326	3,605,404	3,317,336	3,062,232	
Administration Expenses		(1,933,973)	(1,467,745)	(1,762,966)	(1,608,796)	(1,331,566)	
Employment Costs		(1,672,759)	(1,842,939)	(1,631,745)	(1,449,246)	(1,404,097)	
Depreciation & Amortisation		(134,946)	(130,322)	(125,897)	(111,736)	(140,363)	
Operating profit		376,240	332,320	84,796	147,558	186,206	
Unrealised gains/(losses) on financial investment		213,861	167,468	193,974	(122,033)	83,793	
(Loss)/profit on sale of financial investment		-	(79,774)	-	9,411	-	
Interest income		6,121	11,392	14,211	9,307	7,229	
Other income		-	80,107	-	-	-	
Taxation		(107,138)	(92,098)	(61,543)	24,158	(21,976)	
Profit after taxation		489,084	419,415	231,438	68,401	255,252	
Balance Sheet		At 31 Dec 2021	At 31 Dec 2020	At 31 Dec 2019	At 31 Dec 2018	At 31 Dec 2017	
		€	€	€	€	€	
Fixed Assets		246,807	273,212	77,230	101,008	102,641	
Investments		4,680,160	4,466,299	4,378,689	4,184,715	3,328,882	
Current Assets		4,509,971	3,628,342	3,367,858	2,910,556	3,474,662	
Creditors < 1 year, excluding Deferred Income		(1,239,185)	(893,648)	(1,099,400)	(866,391)	(836,023)	
Deferred Income		(2,976,122)	(2,795,123)	(2,506,577)	(2,390,458)	(2,169,542)	
Creditors > 1 year		(167,524)	(114,059)	(72,192)	(25,260)	(54,851)	
Members' Funds		5,054,107	4,565,023	4,145,608	3,914,170	3,845,769	
5 Year Summary – Registration Growth		YoY % change	Year to 31 Dec 2021	Year to 31 Dec 2020	Year to 31 Dec 2019	Year to 31 Dec 2018	Year to 31 Dec 2017
At 1 January*			306,498	277,831	259,815	235,200	219,858
New Registrations	(4.5%)		62,198	65,113	50,167	51,040	39,523
Less: Deletions/ Non-renewals	16.9%		(42,593)	(36,446)	(32,151)	(26,425)	(24,181)
Net Additions	(31.6%)		19,605	28,667	18,016	24,615	15,342
At 31 December*			326,103	306,498	277,831	259,815	235,200
Net – growth in year			6.4%	10.3%	6.9%	10.5%	7.0%
New Reg – growth in year			20.3%	23.4%	19.3%	21.7%	18.0%
Deletion rate			(13.9%)	(13.1%)	(12.4%)	(11.2%)	(11.0%)

*Zone File data - excludes suspended domains

Financial Statements

For the financial year ended 31 December 2021

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Company Information

Directors

Ms. Louise English (Chairman)
Mr. Eamonn Ceannt
Mr. Gareth Dunlop
Ms. Anne-Marie Eklund Löwinder
Ms. Jennifer Chamberlaine
Mr. Dan Flinter
Mr. Owen O'Connor
Mr. Jonathan Bate

Secretary

Mr. Patrick Bates

Company Number

315315

Registered Office

4th Floor
Harbour Square
Dun Laoghaire
Co. Dublin

Auditors

Grant Thornton
Chartered Accountants & Statutory Audit Firm
13-18 City Quay
Dublin 2

Bankers

Bank of Ireland	KBC Bank
Montrose	Sandwith Street
Dublin 4	Dublin 2

Solicitors

Arthur Cox	Eversheds Sutherland
Earlsfort Centre	One Earlsfort Centre
Earlsfort Terrace	Earlsfort Terrace
Dublin 2	Dublin 2

Directors' Report

for the financial year ended 31 December 2021

The directors present their report and the financial statements for the financial year ended 31 December 2021.

Principal Activity

The company was incorporated on 16 November 1999 and commenced to trade on 1 July 2000. The principal activity of the company is the registry for .ie Internet domain names.

Results and Dividends

The profit for the financial year, after providing for depreciation, taxation and the unrealised gains on financial investment amounted to €489,084 (2020 – €419,415). No dividends are payable as the company is limited by guarantee and does not have a share capital.

Business Review

Turnover increased by 9.1% to €4.12 million (2020 – €3.77 million). Volume growth in domains was again very strong in 2021, although year-on-year new registration growth decreased slightly by 4.5%, after a record year of new registrations in 2020. This growth is attributed to the digital transformation accelerated by the Covid-19 pandemic, as consumers shifted their spending to digital platforms and businesses pivoted quickly to provide online services to their customers. The volume growth was processed by the company's contracted accredited registrars, who are selected by individual domain holders to manage .ie domains on their behalf and provide other services such as hosting and email management. When non-renewals are considered, the net growth of the .ie namespace was 31.6% lower than the net growth in 2020.

Administrative expenses increased by 8.7% from €3.44 million to €3.74 million in 2021. Technical Services expenditure increases largely reflected the preparations for certification and improvements in cyber security defences, policy responses to technical abuse that uses the DNS and preparations for EU regulatory expansion. Marketing and promotion expenditures increased by 37% with the launch of the .IE Digital Town awards programme, which provided €100,000 in prize money to the winning towns, in recognition of their digital achievements online. The company continued to support its registrars in 2021 with its joint promotion initiatives to grow and develop the .ie namespace. There were also reductions under some marketing and promotion cost headings, following the completion of the .IE rebranding project in 2020.

Employment costs decreased by 9.2% in 2021 to €1.67 million reflecting the completion of the 2020 project to develop and customise the new TITAN registry management platform, and also a time lag in recruitment after a realignment of some roles and responsibilities, both offset by cost of living salary increases for all staff.

In 2021, the company continued integrating and optimising its new registry system. The company has a licence agreement to use a domain registry management platform developed and used by the Canadian Internet Registration Authority. The platform was customised in 2020 to meet the needs of the .ie managed registry, GDPR requirements and 'Connection to Ireland' processes. The customisation costs incurred on the TITAN registry management platform were capitalised as intangible assets and are being amortised over the term of the license agreement. As part of the implementation project, the company refined its operational processes to align more closely with industry-standard technical operations in other internet namespaces, including protocols such as EPP and domain lifecycle.

This investment, together with the related infrastructure investments, was timely as .IE continues to experience sustained growth following the liberalisation policy initiative in 2018, which made it easier and faster for individuals and organisations to register a .ie domain. This move to the modern and powerful registry management platform, TITAN, which has greater functionality and flexibility, will ensure that our technical systems can support .IE's long-term growth. The new .IE registry platform is an investment in the next decade.

The deferred revenue on the balance sheet increased by 6.5% in 2021, to €2.98 million (2020 – €2.80 million). This is because the invoiced value of registration fees increased by 4.8%, reflecting an 86% renewal rate and over 62,000 newly created registrations in 2021.

The financial position of the company at 31 December 2021 is solid with Members' Funds of €5.05 million. The market value of financial investments at 31 December 2021 is €4.63 million (2020 – €4.42 million), up by €0.21 million in 2021.

Directors' Report (continued)

Future Developments

The company continues to monitor international developments impacting ccTLD registries, particularly the consequences of Covid-19 pandemic in a post-vaccine phase, new EC cyber security regulations and the draft ICANN proposals for ongoing international expansion in, and the number of, top-level domains. These developments may result in some disruption in the global domain name market, and will represent a challenge for data protection managers, trademark and patents holders, brand managers and the owners of intellectual property rights.

In technical terms, the company's infrastructure and services portfolio is up-to-date, matching the top ccTLD's in the EU. Heretofore, the company has taken a national leadership role by introducing registry lock, secure DNS, secondary market, IDN's, rule relaxations for geographic and place names, and the liberalisation of rules for new .ie domains.

Principal Risks and Uncertainties

The company is exposed to risk and uncertainty arising from market fluctuations in its financial investments. These risks are managed by a combination of appropriate investment principles, advice from independent investment advisors and oversight by a Board subcommittee. The company's financial investments are invested for the long-term in conservative managed funds diversified across multiple investment managers.

In common with other small and medium-sized enterprises, the company's performance is impacted by macro-economic risks posed by weak SME balance sheets, and the ongoing uncertainty arising from the Brexit referendum in the UK – the largest market for Irish SME exporters. These risks continue to be managed prudently by the company. The impact of new regulations remains uncertain, as the EU continues its initiatives: address cyber security threats, complete the Digital Single Market and implement ePrivacy initiatives.

In common with internet service providers, the company faces risks in relation to digital disruption and innovations from global internet giants, which offer new apps and free services financed by advertising revenues. The company faces risks with regard to the ever-increasing range and sophistication of cyber-attacks on internet infrastructure and businesses. The company also faces risks in relation to reliance on key computer systems and key staff. The company's cyber security controls, business continuity plans and disaster recovery procedures address the risks associated with cyber threats, technical

abuse using the DNS and reliance on key computer systems. The multi-stakeholder Policy Advisory Committee (PAC) continues to assist by providing advice and recommendations to the board on a range of policy responses for the .ie namespace. Staff training, cross-skilling and key process documentation mitigate the potential exposure arising from the loss of key staff members.

Post Balance Sheet Events

There are no material post balance sheet events.

Directors

In accordance with the Articles of Association directors may serve a maximum of two Terms, whereby an initial term is a four-year period and a subsequent term is for a three-year period.

Mr. Eamonn Ceannt retired as director in accordance with the Articles of Association and offered himself for re-appointment in accordance with the Articles. Mr. Ceannt's re-appointment was approved.

Mr. Gareth Dunlop, Ms Louise English, Ms Anne-Marie Eklund Löwinder, Mr Dan Flinter, Mr Owen O'Connor, Ms Jennifer Chamberlaine and Mr. Jonathan Bate continued as directors in 2021.

Directors and their Interests

In accordance with the Articles of Association, the directors have no financial interest in the Members' Funds of the company.

The company is limited by guarantee and does not have a share capital. Every member of the company undertakes to contribute to the assets of the company in the event of it being wound up. Members are liable for payment of debts and liabilities of the company contracted before ceasing to be a member, and for the costs, charges and expenses of winding up, such amount as may be required not exceeding €1.27 cash.

Directors' Responsibilities

The directors are responsible for preparing the Directors' Report and the financial statements in accordance with Irish law and regulations.

Irish company law requires the directors to prepare financial statements for each financial year. Under the law, the directors have elected to prepare the financial statements in accordance with Companies Act 2014 and FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' issued by the Financial Reporting Council ("relevant financial reporting framework"). Under company law, the

directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities and financial position of the company as at the financial year end date and of the profit or loss of the company for the financial year and otherwise comply with the Companies Act 2014.

In preparing these financial statements, the directors are required to:

- ▶ select suitable accounting policies and then apply them consistently;
- ▶ make judgments and accounting estimates that are reasonable and prudent;
- ▶ state whether the financial statements have been prepared in accordance with applicable accounting standards, identify those standards, and note the effect and the reasons for any material departure from those standards; and
- ▶ prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for ensuring that the company keeps or causes to be kept adequate accounting records which correctly explain and record the transactions of the company, enable at any time the assets, liabilities, financial position and profit or loss of the company to be determined with reasonable accuracy, enable them to ensure that the financial statements and directors' report comply with the Companies Act 2014 and enable the financial statements to be audited. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Accounting records

The measures taken by the directors to ensure compliance with the requirements of Sections 281 to 285 of the Companies Act 2014, with regard to the keeping of proper accounting records, are the employment of appropriately qualified accounting personnel and the maintenance of computerised accounting systems. The company's accounting records are maintained at the company's registered office at 4th Floor, Harbour Square, Dun Laoghaire, Co. Dublin.

Statement on relevant audit information

In the case of each of the persons who are directors at the time this report is approved in accordance with Section 332 of Companies Act 2014:

- (a) So far as each director is aware, there is no relevant audit information of which the company's statutory auditors are unaware, and
- (b) Each director has taken all the steps that he or she ought to have taken as a director in order to make himself or herself aware of any relevant audit information and to establish that the company's statutory auditors are aware of that information.

Auditors

In accordance with Section 383(2) of the Companies Act 2014, the auditors, Grant Thornton, will continue in office.

Signed on behalf of the Board

Director

Ms Louise English

Director

Mr. Jonathan Bate

Date

16 May 2022

Independent Auditor's Report to the Members of IE Domain Registry CLG

Opinion

We have audited the financial statements of IE Domain Registry CLG ("the Company"), which comprise the Statement of income and retained earnings, the Statement of financial position, Statement of cash flows for the financial year ended 31 December 2021, and the related notes to the financial statements, including a summary of significant accounting policies.

The financial reporting framework that has been applied in their preparation of the financial statements is Irish law and FRS 102 'The Financial Reporting Standard applicable in the UK and the Republic of Ireland' (Generally Accepted Accounting Practice in Ireland).

In our opinion, IE Domain Registry CLG's financial statements:

- ▶ give a true and fair view in accordance with Generally Accepted Accounting Practice in Ireland of the assets, liabilities and financial position of the Company as at 31 December 2021 and of its financial performance and cash flows for the financial year then ended; and
- ▶ have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) and applicable law. Our responsibilities under those standards are further described in the 'Responsibilities of the auditor for the audit of the financial statements' section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of financial statements in Ireland, including the Ethical Standard for Auditors (Ireland) issued by the Irish Auditing and Accountancy Supervisory Authority (IAASA), and the ethical pronouncements established by Chartered Accountants Ireland, applied as determined to be appropriate in the circumstances for the Company. We have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the director's use of going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Company's ability to continue as a going concern for a period of at least twelve months from the date when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Other information

Other information comprises information included in the Annual Report, other than the financial statements and our auditor's report thereon, including the Directors' Report. The directors are responsible for the other information. Our opinion on the financial statements does not cover the information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies in the financial statements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Matters on which we are required to report by the Companies Act 2014

- ▶ We have obtained all the information and explanations which we consider necessary for the purposes of our audit.
- ▶ In our opinion the accounting records of the Company were sufficient to permit the financial statements to be readily and properly audited.
- ▶ The financial statements are in agreement with the accounting records.
- ▶ In our opinion the information given in the Directors' Report is consistent with the financial statements. Based solely on the work undertaken in the course of our audit, in our opinion, the Directors' Report has been prepared in accordance with the requirements of the Companies Act 2014.

Matters on which we are required to report by exception

Based on our knowledge and understanding of the Company and its environment obtained in the course of the audit, we have not identified material misstatements in the Directors' Report.

Under the Companies Act 2014, we are required to report to you if, in our opinion, the disclosures of directors' remuneration and transactions specified by sections 305 to 312 of the Act have not been made. We have no exceptions to report arising from this responsibility.

Responsibilities of the management and those charged with governance for the financial statements

As explained more fully in the Directors' responsibilities statement, management is responsible for the preparation of the financial statements which give a true and fair view in accordance with Generally Accepted Accounting Practice in Ireland, including FRS 102, and for such internal control as they determine necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Responsibilities of the auditor for the audit of the financial statements

The auditor's objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (Ireland), the auditor will exercise professional judgment and maintain professional scepticism throughout the audit. They will also:

- ▶ Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion of the effectiveness of the Company's internal control.
- ▶ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

Independent Auditor's Report (continued)

- ▶ Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If they conclude that a material uncertainty exists, they are required to draw attention in the Auditor's Report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify their opinion. Their conclusions are based on the audit evidence obtained up to the date of the Auditor's Report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- ▶ Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves a true and fair view.

The auditor shall communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that may be identified during the audit.

The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the Company's members, as a body, in accordance with section 391 of the Companies Act 2014. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an Auditor's Report and for no other purpose.

To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Dan Holland, FCA

for and on behalf of
Grant Thornton
Chartered Accountants & Statutory Audit Firm
Dublin 2

Statement of Income and Retained Earnings

for the financial year ended 31 December 2021

		Continuing Operations	
		2021	2020
		€	€
	Notes		
Turnover	3	4,117,918	3,773,326
Administrative expenses		(3,741,678)	(3,441,006)
Operating profit	4	376,240	332,320
Realised (loss) on financial investment		-	(79,774)
Unrealised gains on financial investment		213,861	167,468
Interest income		6,121	11,392
Other income		-	80,107
Profit on ordinary activities before taxation		596,222	511,513
Tax on profit on ordinary activities	7	(107,138)	(92,098)
Profit retained for the financial year		489,084	419,415
Statement of income and retained earnings			
Accumulated profit brought forward		4,565,023	4,145,608
Total recognised gains relating to the year		489,084	419,415
Accumulated profit carried forward		5,054,107	4,565,023

Statement of Financial Position

as at 31 December 2021

	Notes	2021 €	2020 €
Fixed Assets			
Intangible assets	8	105,331	140,442
Tangible assets	9	141,476	132,770
Financial assets	10	4,680,160	4,466,299
		4,926,967	4,739,511
Current Assets			
Debtors	11	218,287	191,544
Cash at bank and in hand		4,291,684	3,436,798
		4,509,971	3,628,342
Creditors: amounts falling due within one year	12	(4,215,307)	(3,688,771)
Net Current Assets/(Liabilities)		294,664	(60,429)
Creditors: amounts falling due after one year	13	(167,524)	(114,059)
Total Assets less Current Liabilities		5,054,107	4,565,023
Capital and Reserves			
Profit and loss account		5,054,107	4,565,023
Members' Funds		5,054,107	4,565,023

The financial statements were approved by the Board on 16 May 2022 and signed on its behalf by:

Director

Ms. Louise English

Director

Mr. Jonathan Bate

Statement of Cash Flows

for the financial year ended 31 December 2021

	Notes	2021 €	2020 €
Cash flows from operating activities			
Profit for the financial year		489,084	419,415
Adjustments for:			
Amortisation of intangible assets		35,111	35,110
Depreciation of tangible assets		99,835	95,212
Realised loss on financial investment		-	79,774
Unrealised gain on financial investment		(213,861)	(167,468)
Other income		-	(80,107)
Interest income		(6,121)	(11,392)
Tax on operating activities		107,138	92,098
(Increase)/decrease in debtors		(26,743)	23,616
Increase in creditors		560,016	52,759
Corporation tax paid		(87,153)	(20,194)
Net cash inflow from operating activities		957,306	518,823
Cash flows from investing activities			
Purchase of intangible assets	8	-	(175,552)
Purchase of tangible fixed assets	9	(108,541)	(150,752)
Purchase (net) of financial assets	10 (a)	-	84
Receipts from other income		-	80,107
Net cash used in investing activities		(108,541)	(246,113)
Cash flows from financing activities			
Interest income received		6,121	10,864
Net cash from financing activities		6,121	10,864
Net increase in cash and cash equivalents	16	854,886	283,574
Cash at beginning of year		3,436,798	3,153,224
Cash at end of year		4,291,684	3,436,798
Cash at bank		4,291,684	3,436,798

Notes to the Financial Statements

for the financial year ended 31 December 2021

1. General Information

These financial statements comprising the Statement of Income and Retained Earnings, the Statement of Financial Position, the Statement of Cash Flows and the related notes 1 to 22 constitute the individual financial statements of IE Domain Registry CLG for the financial year ended 31 December 2021.

IE Domain Registry CLG is a company limited by guarantee, under registration number 315315 and does not have a share capital (registered under Part 2 of Companies Act 2014), incorporated in the Republic of Ireland. The Registered Office is 4th Floor, Harbour Square, Dun Laoghaire, Co. Dublin, which is also the principal place of business of the company. The nature of the company's operations and its principal activities are set out in the Director's Report on pages 31 to 33.

1.1 Statement of Compliance

The financial statements have been prepared in accordance with Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" and Irish statute comprising of the Companies Act 2014.

The preparation of financial statements in compliance with FRS 102 requires the use of certain critical accounting estimates. It also requires management to exercise judgment in applying the Company's accounting policies (see note 2.10).

1.2 Currency

The financial statements have been presented in Euro (€) which is also the functional currency of the company.

2. Accounting Policies

2.1 Accounting convention

The financial statements have been prepared on the going concern basis and in accordance with the historical cost convention modified to include certain items at fair value. The financial reporting framework that has been applied in their preparation is the Companies Act 2014 and FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' issued by the Financial Reporting Council.

2.2 Consolidation

The company and its subsidiary combined meet the exemption criteria for a group and the company is therefore exempt from the requirement to prepare consolidated financial statements by virtue of Section 297 of the Companies Act 2014. Consequently, these financial statements deal with the results of the company as a single entity.

2.3 Turnover

Turnover represents the total invoice value, excluding value added tax and rebates, of sales for the financial year ended 31 December 2021. The Company's policy of deferring revenue results in income being recorded in the period to which the fee invoice relates, rather than the period in which the fee invoice was raised. This policy has been maintained during the year ended 31 December 2021.

2.4 Intangible assets and amortisation

Intangible assets are initially recognised at cost. After recognition, under the cost model, intangible assets are measured at cost less any accumulated amortisation and any accumulated impairment losses. All intangible assets are considered to have a finite useful life. If a reliable estimate of the useful life cannot be made, the useful life shall not exceed ten years.

Amortisation is provided on the following basis:

Computer software	-20% Straight Line
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2.5 Tangible fixed assets and depreciation

Tangible fixed assets are stated at cost less accumulated depreciation. The charge for depreciation is provided at rates calculated to write off the cost less residual value of each asset over its expected useful life from date of acquisition as follows:

Leasehold Improvements	- over the life of the underlying lease
Fixtures and Fittings	- 25% Straight Line
Computer Equipment	- 33% Straight Line
Company Vehicles	- 20% Straight Line

The carrying values of tangible fixed assets are reviewed annually for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

2.6 Pensions

The pension costs charged in the financial statements represent the contributions payable by the Company during the year to a defined contribution pension scheme for the benefit of all eligible employees.

2.7 Leasing and hire purchase commitments

Assets obtained under hire purchase contracts and finance leases are capitalised as tangible assets and depreciated over the shorter of the lease term and their useful lives. Obligations under such agreements are included in creditors net of the finance charge allocated to future periods. The finance element of the rental payment is charged to the Statement of Income and Retained Earnings so as to produce constant periodic rates of charge on the net obligations outstanding in each period.

2.8 Taxation

The charge for taxation is based on the profit or loss for the year. Full provision for deferred tax is provided at current tax rates on differences that arise between the recognition of gains and losses in the financial statements and their recognition in the tax computation.

2.9 Financial Instruments

Unlisted Investments

The company's directly held investments in the shares of its unlisted subsidiary undertakings are stated at the lower of cost and net realisable value. The company may indirectly hold unlisted investments through its financial investments in managed funds. It is considered by the directors that the fair value of these shares can be measured reliably. The accounting policy is to record investments at mark to market prices.

Cash and cash equivalents

Cash consists of cash on hand and demand deposits. Cash equivalents consist of short term highly liquid investments that are readily convertible to known amounts of cash that are subject to an insignificant risk of change in value.

Other financial assets

Other financial assets are recorded at mark to market prices. Other financial assets include trade debtors for services sold to customers on short-term credit, which are initially measured at the undiscounted amount of cash receivable from that customer, which is normally the invoice price, and are subsequently measured at amortised cost less impairment, where there is objective evidence of an impairment.

Other financial liabilities

Trade creditors are measured at invoice price, unless payment is deferred beyond normal business terms or is financed at a rate of interest that is not a market rate. In this case the arrangement constitutes a financing transaction, and the financial liability is measured at the present value of the future payments discounted at a market rate of interest for a similar debt instrument.

Notes to the Financial Statements (continued)

Impairment of financial assets

At the end of each reporting period, the company assesses whether there is objective evidence of impairment of any financial assets that are measured at cost or amortised cost, including unlisted investments, loans, trade debtors and cash. If there is objective evidence of impairment, impairment losses are recognised in the Statement of Income and Retained Earnings in that financial year.

2.10 Judgments and key sources of estimation uncertainty

The directors consider the accounting estimates and assumptions below to be its critical accounting estimates and judgements:

Going Concern

The directors have prepared budgets and cash flows for a period of at least twelve months from the date of the approval of the financial statements which demonstrate that there is no material uncertainty regarding the company's ability to meet its liabilities as they fall due, and to continue as a going concern. On this basis the directors consider it appropriate to prepare the financial statements on a going concern basis. Accordingly, these financial statements do not include any adjustments to the carrying amounts and classification of assets and liabilities that may arise if the company was unable to continue as a going concern.

Useful Lives of Tangible and Intangible Fixed Assets

Long-lived assets comprising primarily of property, plant and machinery and intangible assets do not represent a significant portion of total assets. The annual depreciation and amortisation charge depends primarily on the estimated lives of each type of asset and, in certain circumstances, estimates of residual values. The directors regularly review these useful lives and change them if necessary to reflect current conditions. In determining these useful lives management consider technological change, patterns of consumption, physical condition and expected economic utilisation of the assets. Changes in the useful lives can have a significant impact on the depreciation and amortisation charge for the financial year. The net book value of tangible Fixed Assets subject to depreciation at the financial year end date was € 141,476 (2020 – € 132,770). The net book value of intangible assets subject to amortisation at the financial year end date was € 105,331 (2020 – € 140,442).

3. Turnover

	2021 €	2020 €
Turnover	4,117,918	3,773,326
Analysis of turnover by country of destination:		
Republic of Ireland	3,741,065	3,401,687
Europe	159,964	164,981
North America	145,955	140,415
United Kingdom	57,209	52,884
Rest of the World	13,725	13,359
	4,117,918	3,773,326

4. Operating profit

	2021 €	2020 €
The operating profit is arrived at after charging:		
Amortisation	35,111	35,110
Depreciation	99,835	95,212
Auditors' remuneration		
Audit	13,850	13,850
Tax advisory services	3,000	3,000
Directors' remuneration	117,365	78,443
Pension costs	57,974	54,822
Operating lease charges	155,235	139,856
Secretarial fees	-	13,000

5. Remuneration

5(a) Directors' and key management remuneration

Included in employment costs are the following in respect of directors and key management personnel of the company:

	2021 €	2020 €
Emoluments in respect of qualifying services	732,713	630,405
Company contributions in respect of qualifying services to Pension Scheme Fund, a defined contribution benefit retirement scheme	41,554	37,209
	774,267	667,614

The number of management to whom retirement benefits are accruing under Pension Scheme Fund in respect of qualifying services is 4 (2020 - 4).

Other than as shown above any further required disclosures in sections 305 and 306 of the Companies Act 2014 are €Nil for both financial years.

5(b) Transactions with directors and officers

Loans to directors

There were no loans made to directors during the financial year.

5(c). Material interests of directors in contracts with the company

In 2021, related party transactions included company secretarial services supplied by a Director of IE Domain Registry CLG to the company to the value of €NIL (2020 - €13,000). The maximum amount outstanding at any time during the financial year was €NIL (2020: €7,995). Nothing was outstanding at the financial year end date or the previous financial year end date.

All transactions were made at arms-length and on this company's normal commercial terms, which include a requirement to settle debts within 30 days.

*Notes to the Financial Statements (continued)***5(d) Total remuneration costs (including directors and key management)**

	2021	2020
	€	€
Employment costs		
Wages and salaries	1,464,634	1,636,613
Social security costs	150,151	151,504
Other pension costs	57,974	54,822
	1,672,759	1,842,939

5(e) Employees**Number of employees (excluding directors)**

The average monthly numbers of employees during the year were:

	2021	2020
	Number	Number
Administration	23	25

6. Pension costs

The company operates a defined contribution pension scheme for the benefit of all eligible employees. The assets of the scheme are vested in independent trustees for the sole benefit of those eligible employees. The other pension costs charge represents contributions payable by the company to the fund and amounted to €57,974 (2020 – €54,822).

7. Taxation

7(a) Current year taxation

	2021 €	2020 €
Current year taxation		
Corporation tax on the profit for the year on ordinary activities	53,673	50,231
Deferred taxation		
Origination of timing differences	53,465	41,867
	107,138	92,098

7(b) Factors affecting tax charge for year

	2021 €	2020 €
Profit on ordinary activities before tax	596,222	511,513
Profit on ordinary activities multiplied by standard rate of Corporation Tax in Ireland of 12.5%	74,528	63,939
<i>Effects of:</i>		
Capital allowances for period greater than depreciation	(242)	(8,020)
Income at higher rates of taxation	1,635	2,716
Expenses not allowable for tax purposes	4,150	12,854
Movement in financial investment valuation unrealised – so not chargeable for tax purposes	(26,733)	(20,934)
Income tax withheld	1,100	1,100
Income not taxable	(765)	(1,424)
Other timing differences	53,465	41,867
Current tax charge for year (Note 7(a))	107,138	92,098

Notes to the Financial Statements (continued)

8. Intangible assets

	Computer software €	Total €
Cost:		
At 1 January 2021	175,552	175,552
Additions	-	-
At 31 December 2021	175,552	175,552
Amortisation:		
At 1 January 2021	35,110	35,110
Charge for the year	35,111	35,111
At 31 December 2021	70,221	70,221
Net book values		
At 31 December 2021	105,331	105,331
At 1 January 2021	140,442	140,442

Amortisation of intangible fixed assets is included in administrative expenses. The accounting policy for the amortisation of intangible assets is outlined in Note 2.4.

9. Tangible assets

	Leasehold Improvements €	Computer Equipment €	Fixtures and Fittings €	Company Vehicles €	Total €
Cost:					
At 1 January 2021	53,354	1,461,185	28,346	49,394	1,592,279
Additions	14,888	93,653	-	-	108,541
Write-out of retired assets	-	(430,522)	-	-	(430,522)
At 31 December 2021	68,242	1,124,316	28,346	49,394	1,270,298
Depreciation:					
At 1 January 2021	53,354	1,370,276	26,000	9,879	1,459,509
Charge for the year	-	88,569	1,387	9,879	99,835
Write-out of retired assets	-	(430,522)	-	-	(430,522)
At 31 December 2021	53,354	1,028,323	27,387	19,758	1,128,822
Net book values					
At 31 December 2021	14,888	95,993	959	29,636	141,476
At 1 January 2021	-	90,909	2,346	39,515	132,770

The accounting policy for the depreciation of tangible assets is outlined in Note 2.5. There are no assets held under finance leases or hire purchase contracts at 31 December 2021 (2020 – €Nil).

Additions of €14,888 in leasehold improvements are assets under construction as part of the ongoing office refurbishment and accordingly were not depreciated in 2021.

10. Financial assets

		2021	2020
	Note	€	€
Financial Investments at fair value to profit or loss	(a)	4,630,060	4,416,199
Shares in subsidiary undertakings	(b)	50,100	50,100
		4,680,160	4,466,299

10(a) Financial investments

	Unlisted 2021 €
At 1 January 2021	
Fair value	4,416,199
Unrealised gains arising in 2021	213,861
Realised loss on financial investment	-
Net purchase of financial asset	-
At 31 December 2021	4,630,060
Mark to Market Value:	
At 31 December 2021	4,630,060
At 31 December 2020	4,416,199

	Unlisted 2020 €
At 1 January 2020	
Fair value	4,328,589
Unrealised gains arising in 2020	167,468
Realised loss on financial investment	(79,774)
Net purchase of financial asset	(84)
At 31 December 2020	4,416,199
Mark to Market Value:	
At 31 December 2020	4,416,199
At 31 December 2019	4,328,589

Other financial investments represent the investment for the long term in conservative managed funds, diversified across multiple investment managers.

The market value of the financial investments at 31 December 2021 was €4,630,060 (2020 – €4,416,199). In accordance with the accounting policy for other financial investments outlined in Note 2.9 the value of other financial investments is recorded at the market value.

Notes to the Financial Statements (continued)

10(b) Shares in subsidiary undertakings

The company holds 100% of the share capital of the following company:

Name of subsidiary	Country of Registration or incorporation	Shares held class	Principal Activity
IENUM Limited	Ireland	Ordinary and Preference	ENUM Registry

IENUM Limited is an Irish registered company with a registered office at 4th Floor, Harbour Square, Dun Laoghaire, Co. Dublin. The aggregate amount of capital and reserves and the results of this undertaking for the year ended 31 December 2021 were as follows:

	Capital and Reserves	Profit for the year
	€	€
IENUM Limited	50,100	Nil

11. Debtors: amounts falling due within one year

	2021	2020
	€	€
Prepayments and accrued income	218,287	191,544
	218,287	191,544

12. Creditors: amounts falling due within one year

	Note	2021	2020
		€	€
Trade creditors	(a)	75,161	52,090
Customer Deposit accounts		496,732	379,556
Other creditors		88,441	100,828
Corporation tax payable		7,302	37,729
Other taxes and social security costs		15,942	22,699
Accruals	(b)	555,607	300,746
Deferred income	(c)	2,976,122	2,795,123
		4,215,307	3,688,771
Other taxes and social security costs include:		€	€
VAT		15,942	22,699
		15,942	22,699

12(a) The payment terms of trade creditors vary between on demand and ninety days. No interest is payable on trade creditors. Tax and social insurance are subject to the terms of the relevant legislation. Interest accrues on late payment at the rate of 0.0274% for each day or part of a day for which payment is overdue. No interest was due at the financial year end date.

12(b) The terms of the accruals are based on the underlying contracts. Other amounts included within creditors not covered by specific note disclosures are unsecured, interest free and repayable on demand.

12(c) The accounting policy for deferred income is outlined in Note 2.3.

13. Creditors: amounts falling due after more than one year

	2021 €	2020 €
Deferred taxation		
At 1 January	114,059	72,192
Charged within current tax charge for year	53,465	41,867
At 31 December	167,524	114,059

The deferred tax charge relates to the origination of timing differences.

14. Guarantee

Parent Company Guarantee

On 18 December 2006, the company's subsidiary IENUM Limited signed an agreement with the Commission for Communications Regulation (ComReg) to provide the national ENUM registry service for Ireland. At 31 December 2021, the company is the sole Guarantor of the obligations of its subsidiary IENUM Limited.

15. Commitments

Operating lease commitments

Total future minimum lease payments under non-cancellable operating leases are calculated at €537,034 (2020 – €700,110), payable as follows:

	Premises 2021 €	Premises 2020 €
Within one year	163,076	163,076
Between two and five years	373,958	537,034
More than five years	-	-
	537,034	700,110

Capital commitments

The company has no capital commitments at 31 December 2021 (2020 – €Nil).

16. Analysis of changes in cash at bank

	Opening balance €	Cash flow €	Closing balance €
Current accounts	304,018	861,696	1,165,714
Deposit accounts	3,132,780	(6,810)	3,125,970
Cash at bank	3,436,798	854,886	4,291,684

*Notes to the Financial Statements (continued)***17. Post balance sheet events**

There are no other material post balance sheet events.

18. Contingent liabilities

There are no contingent liabilities at 31 December 2021.

19. Company structure

The company is limited by guarantee and does not have a share capital.

20. Controlling parties

The company is controlled by its members. At 31 December 2021 the eight directors are the members.

21. Financial instruments

The analysis of the carrying amounts of the financial instruments of the company required under Section 11 of FRS 102 is as follows:

	2021 €	2020 €
Financial assets at fair value through profit or loss		
Listed investments	4,630,060	4,416,199
Financial assets that are debt instruments measured at amortised cost		
Cash at bank and in hand	4,291,684	3,436,798
Financial liabilities measured at amortised cost		
Trade creditors	75,161	52,090

22. Approval of financial statements

The financial statements were approved by the Board on 16 May 2022 and signed on its behalf by:

Director

Ms. Louise English

Director

Mr. Jonathan Bate

Glossary of Terms

.ie accredited Registrar

An .ie accredited Registrar is a company that has signed an agreement with IE Domain Registry, authorising it to act as agent for registrants who require a .ie web address. Accredited Registrars include HSPs, ISPs and web development companies. The list of .ie accredited Registrars can be found at www.weare.ie/accredited-registrar-list.

Anycast

Anycast is a methodology for addressing multiple servers with the same IP address. Data is transmitted to the closest or best receiver in line with predetermined criteria. One benefit is that a denial of service attack can be “localised” and therefore contained.

ccTLD

Country code top-level domains (ccTLD), are national top-level domains based on the International Organisation for Standardisation’s (ISO) country codes. National top-level domains comprise two letters, for example .ie for Ireland or .de for Germany.

CENTR

CENTR (Council of European National Top-Level Registries). CENTR is a not-for-profit organisation dedicated to supporting the interests of country code TLD managers. The objectives of CENTR are to promote and participate in the development of high standards and best practices among ccTLD Registries. See www.centri.org.

DNS

The Domain Name System (DNS) is an international hierarchical distributed database used to translate alphanumeric domain names, as understood by humans, into IP address, which computers use to find other computers on the internet e.g. www.weare.ie is translated to IP address 77.72.74.172.

DNSSEC

DNSSEC (DNS Security Extension) is a supplementary service to domain names that makes it possible to check that the DNS information stems from the correct sender and has not been altered during its transmission. When DNSSEC is in use, the computer submitting a query (e.g. an internet browser) is able to determine whether the reply provided for an internet address in the DNS actually comes from the server that is registered with .IE as being the authoritative server.

Domain name

A domain name is a unique alphanumeric name, which is often linked to a website or e-mail. The domain name is translated in the DNS to an IP address before any internet communication can occur. A registered domain name is a domain name held by a specific registrant following an application process.

GAC

ICANN receives input and advice from governments through the Governmental Advisory Committee (GAC). The GAC’s key role is to provide advice to ICANN on issues of public policy and especially where there may be an interaction between ICANN’s activities or policies and national laws or international agreements.

gTLD

Generic top-level domains (gTLDs), such as .com, .net and .org are top-level domains.

ICANN and IANA

ICANN (Internet Corporation for Assigned Names and Numbers). An international not-for-profit, private sector organisation created to co-ordinate four key functions of the internet: managing the domain names system, allocating IP addresses, assigning protocol parameters and managing the root server system.

IANA (Internet Assigned Numbers Authority) is responsible for the global coordination of the DNS Root, IP addressing, and other internet protocol resources. It is one of the Internet’s oldest institutions, with the IANA functions dating back to the 1970s. Today the services are provided by Public Technical Identifiers, a purpose-built organization for providing the IANA functions to the community. PTI is an affiliate of ICANN, an internationally-organised non-profit organisation set up by the Internet community to coordinate our areas of responsibilities.

IGF

The Internet Governance Forum (IGF) was established in 2006 by the United Nations to create a forum for discussion of internet governance policy issues. Multi-stakeholders represent countries, commerce and society in general.

IPv4 and IPv6

Internet Protocol version 4 (IPv4) is the fourth version of the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet. (IE Domain Registry’s IPv4 address is 77.72.74.137).

In response to a global shortage of addresses, a

successor protocol, IPv6, became an Internet Standard on 14 July 2017. IPv6 uses a 128-bit address, theoretically allowing 2¹²⁸ addresses – enough for every internet-connected fridge and toaster on the planet – for now at least. (IE Domain Registry's IPv6 address is 2a01:4b0:0:6::29).

Nameserver

Nameservers are computers with software that stores and/or distributes domains (zones) and which accept and answer domain name questions. When a user wishes to visit www.weare.ie for example, the user's computer sends a question to a nameserver asking for an IP address for a computer on which information regarding www.weare.ie is located.

NIS Directive

The Directive on security of network and information systems (NIS Directive) is the first piece of EU-wide legislation which provides legal measures to boost the overall level of cybersecurity in the European Union. Specifically, it requires that Member States ensure they each implement certain national cybersecurity capabilities, facilitate cross-border engagement, and supervise the cybersecurity of critical market operators in their country (including energy, communications, transport, health and finance). Member States were required to have transposed the Directive into their national laws by 9 May 2018 and identify Operators of Essential Services (OES) by 9 November 2018.

PAC

The Board of .IE established a Policy Advisory Committee (PAC) in 2014 to consider and provide advice on policy issues concerning Ireland's internet top-level domain, .ie. The Policy Advisory Committee operates in line with the 10-step Policy Development Process (PDP).

PDP

.IE's Policy Development Process (PDP) for the .ie namespace is a 10-step process used to formulate, evaluate, and generate consensus on proposed policy changes and its implementation. The formal process is consensus-driven, transparent and allows for bottom-up proposals from the wider multi-stakeholder internet community. See www.weare.ie/policy-development-process.

Registrant

The individual or legal entity registered in the .ie database, with the legal right to use the .ie domain name.

Registry

A registry is a company or organisation responsible for the administration and operation of a top-level domain. .IE is the active registry operator responsible for administration, management and technical operation of the .ie domain and ensures that all registered .ie domains are included in the zone file and accessible via the internet.

Zone and zone file

A zone is the delimitation of the administrative responsibility for a domain tree. A zone file is a data file comprising the necessary zone information to enable the use of DNS addressing. The zone files are stored on authoritative nameservers that are distributed throughout the internet.



We are
Ireland online

.IE

2 Harbour Square
Dun Laoghaire
Co. Dublin, A96 D6R0

Tel +353 1 236 5400
Email marketing@weare.ie
Twitter @dot_IE

weare.ie

.IE is the trading name of IE Domain Registry CLG,
company number 315315.

