

IP GROUP PLC

**ENVIRONMENTAL, SOCIAL & GOVERNANCE
REPORT 2022**

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“Contributing to a better future: huge scope for impact”

E ENVIRONMENTAL



Low direct negative environmental impact (100% offset)



TCFD: Climate opportunities significantly outweigh risks

S SOCIAL



Aim to be market-leading in inclusion & diversity



Novel approach to diversity; ExCo employee execs



Progress made on female representation; 37% on ExCo & 43% on Board

G GOVERNANCE



Committed to high standards of corporate governance and best practice



Encourage strong governance in our portfolio companies



Greg Smith
CEO, IP Group

Message from CEO

Science as a driver for innovation is now widely understood and there is widespread recognition that scientific solutions, and the new technologies they inspire, are needed to address the major challenges facing the world.

IP Group was founded on the principle of evolving science and innovation into world-changing businesses and our vision has increasingly become that of contributing to a better future through the impact of science and technology-based business we have identified, backed, and grown together as long-term partners.

The Group is increasingly focusing capital, resources, and expertise on clear thematic areas, focusing on companies whose products and services will meaningfully contribute to a sustainable, healthier, tech-enriched future. We aim to accelerate those businesses whose addressable market, differentiators, and progress we consider are most compelling.

We have a 20-year track record and are proud to have helped create and build a portfolio of exciting businesses that are making a real difference. Since the Group was founded, we have formed and supported nearly 400 companies in total and have invested more than £1.1bn into those businesses which, in turn, have raised more than £8bn of funding. We estimate that more than 5,000 jobs have been created through IP Group and its portfolio companies.

In five years' time, IP Group aspires to be tackling some of the world's biggest problems and will have significant investments, presence, and influence in our focus sectors. We aspire to have contributed to the building of many more category-leading businesses and to have created at least one valued at more than \$10bn.

We continue to place huge importance on the value of inclusion and diversity in all its forms in our team and culture - the success of IP Group depends on the quality of our people across a broad range of disciplines and across our portfolio companies. I have personally sponsored the launch of our ID Project (Inclusion and Diversity) as we have ambitions to be market-leading in this field. Inclusion and diversity was also considered when establishing our Executive Committee last year with a pioneering move to create two new "Employee Executive" positions to increase diversity of thought. It was also an area that we engaged with our portfolio on in 2021.

On a personal level, I was proud to take over as CEO towards the end of last year and I am excited about the prospects for what is a quality portfolio of companies with real potential to have significant global impact. We will continue to back our portfolio companies to succeed and continue to believe that IP Group has an important role to play in shaping the future.

Group at a Glance



Contributing to a better future."

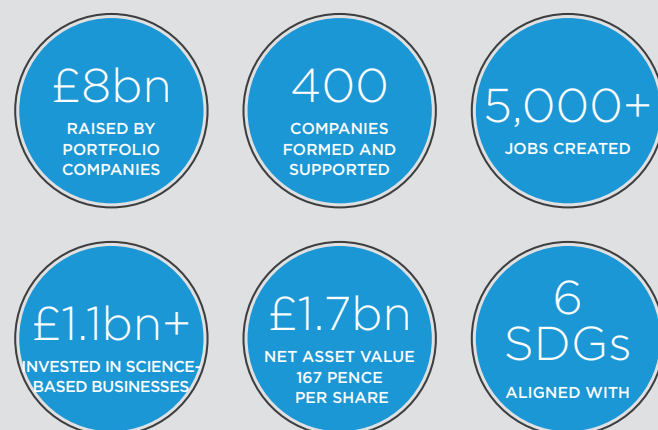
IP Group's vision has increasingly become contributing to a better future through the impact of the science and technology-based business we have identified, backed, and grown together as long-term partners.

The Group is increasingly focusing capital, resources, and expertise on clear thematic areas, focusing on companies whose products and services will meaningfully contribute to a sustainable, healthier, tech-enriched future. We aim to accelerate those businesses whose addressable market, differentiators, and progress we consider are most compelling.

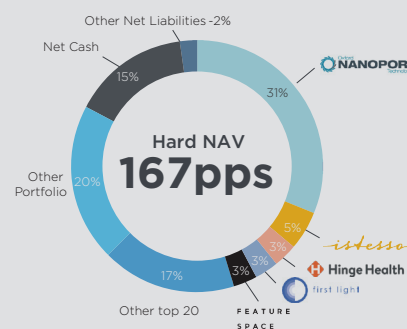
ENGAGEMENT AND IMPACT

Since the Group was founded, we have formed and supported nearly 400 companies in total and have invested more than £1.1bn into those businesses which, in turn, have raised more than £8bn of funding.

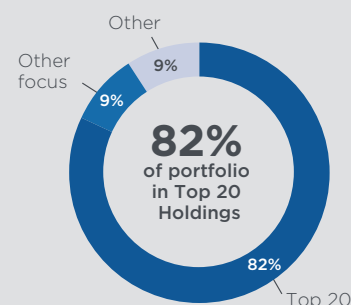
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What's in a share?

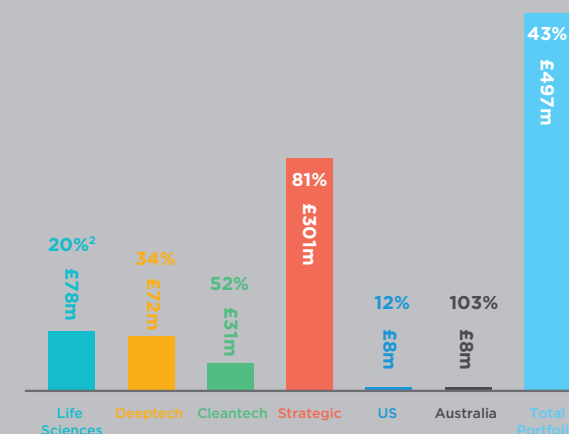


Portfolio by focus



Portfolio performance summary²

2021 portfolio fair value movements/return on opening portfolio



Portfolio analysis - UK breakdown

Sector	Value of companies (m)	No. of portfolio companies ¹
Life Sciences	414.9	36
Deeptech	226.3	34
Cleantech	100.9	12
Strategic	607.8	4
Organic & de minimis	10.4	-
Total UK Portfolio	1,360.3	86

¹ Excluding organic and de minimis (64 companies).

² Percentages reflect simple return on opening portfolio value.

Impact in Focus

In 2021, the Group's evolving purpose of contributing to a better future through the impact of science and technology-based businesses that we have identified, backed and grown together as long-term partners, continued to be at the forefront of the global fight against the pandemic and increasingly against climate change.



A sustainable, healthier and tech-enriched future.”

Over the last two years, scientific innovation has proven to be a vital weapon in the world's response to COVID-19 and many of the companies that IP Group has backed and supported over the last 21 years have played critical roles in this response. The response to COVID-19 has highlighted not only companies that can help to create a healthier future, but also those looking to alleviate the climate crisis, helping to make a sustainable future as well as those increasing the efficiency of the digital economy, helping to make a tech-enriched future.

Impact has always been at the heart of IP Group and everything we do. Not only do we try to ensure that we and our portfolio companies observe the highest ESG standards where possible, perhaps more importantly our whole purpose is to build companies that can make a positive impact on the world helping to create a sustainable, healthier and tech-enriched future.

In 2021, the Group continued to both create impactful companies (see New Investments in Appendix 2) and also to accelerate its approach to ESG, responsible investing and impact across the Group. Building on the recommendations of the materiality assessment study carried out in 2020, we have focused further on integrating ESG to our evolving strategy, improved data collection processes and embedded responsible investment and ESG at the portfolio level.

It has been clear for a number of years that meeting the goals of the COP21 Paris Agreement, and more recently those updated at COP26, will require a transition of economies to net zero carbon emissions. At IP Group, we are committed to supporting the energy transition both through our operations but more importantly through our portfolio and the companies we are creating out of world leading research. Our cleantech portfolio in particular, contains many companies with technological solutions aimed at contributing to the transition.

MEMBERSHIPS, RATINGS AND INITIATIVES

WE SUPPORT



Signatory of:



Principles for Responsible Investment

TCFD

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

SUSTAINABLE DEVELOPMENT GOALS

Corporate ESG Performance
RATED BY ISS ESG

Prime

SUSTAINALYTICS
a Morningstar company
RATED

FTSE4Good

MSCI ESG RATINGS
AA

INVESTING IN WOMEN CODE

#100BLACK INTERNS

ESG -VC

¹ * The use by IP Group plc of any MSCI ESG research llc or its affiliates ("MSCI") data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of IP Group plc by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

Impact in Focus

£103.7M
INVESTED IN PORTFOLIO
COMPANIES



13
PORTFOLIO COMPANIES
REPRESENTED AT COP26



**GHG
83tCO₂e**

(2020: 138.4tCO₂e)
OFFSET BY
SEQUESTRATION



20
CHARITIES SUPPORTED
BY IP GROUP IN 20in21
CAMPAIGN



6 SDGS
ALIGNED WITH



FIRST
YEAR OF REPORTING
TO TCFD



TCFD | TASK FORCE ON
CLIMATE-RELATED
FINANCIAL
DISCLOSURES

TWO
EMPLOYEE EXECs
ON EXCO



43%
FEMALE REPRESENTATION IN
IP GROUP'S BOARD



38%
FEMALE REPRESENTATION IN
SENIOR LEADERSHIP

Highlights:

- £103.7m invested in portfolio companies
- Alignment with 6 SDGs
- Thirteen portfolio companies represented at COP26

Environment:

- First year of reporting to TCFD
- Portfolio low risk with significant positive opportunities
- GHG 83tCO₂e (2020: 138.4tCO₂e) offset by sequestration
- Launch of 'Electric Dreams' subsidised EV scheme

Social:

- Twenty Charities supported by IP Group in 20in21 campaign
- New partnership with **Into**University
- 43% female representation on IP Group's Board
- 38% female representation in Senior Leadership
- Launch of the ID Project, IP Group's diversity and inclusion initiative
- Two employee execs on Exco
- Zero cases of whistle blowing
- eNPS improved +23 to +28

Governance:

The Group has provided training to all staff in the following areas:

- Anti-money laundering
- Cyber security
- General Data Protection Regulations ("GDPR")
- Anti-bribery and corruption

ESG and Responsible Investment at IP Group

Building a sustainable and viable business

IP Group's approach to ESG in 2021

In 2021 IP Group continued to evolve its approach to ESG, responsible investing and impact across the Group. Building on the recommendations of the materiality study carried out in 2020, we have focused on further integrating ESG into the overall IP Group strategy, improved data collection processes and continued embedding responsible investment and ESG at a portfolio level.

Looking to 2022

- Continue to integrate ESG into all parts of the business bringing into focus IP Group's core purpose of backing impactful businesses;
- Continued focus on supporting employees at IP Group and, in particular, embedding our diversity and inclusion initiative – the ID Project;
- Build on our responsible investment process with defined stewardship aims for portfolio companies;
- Measure and communicate IP Group portfolio companies' environmental, social and economic impact;
- Training of Board and employees on ESG and impact matters; and
- Underpin all work with robust measurement processes and metrics.




Governance

The Board of Directors oversees the Group's approach to ESG and related policies and addresses specific issues if they arise. Day-to-day accountability for ESG rests with executive management and, in particular, the CEO. An ESG Committee meets quarterly to discuss strategy and its implementation. In addition, the Group's existing investment processes take into account ESG matters through the Ethical Investment Framework ("EIF"), which is overseen by the Ethics Committee. In order to ensure effective implementation of the ESG, Responsible Investment and Impact workstreams, two more working groups have been formed – the ESG PLC working group and the Responsible Investment working group. These report into the ESG Committee.

Measurement and Frameworks

IP Group is committed to measuring its ESG progress with the materiality assessment having helped identify both material issues and appropriate metrics. We have begun data collection around these metrics in line with the SASB framework and this year we have reported to align with the requirements of TCFD. Our voluntary response and analysis of climate risk positions us as an early mover in our sector. More details of our response to the TCFD can be found on pages 27 and 28. We continue to align with the UN Global Compact and UN Principles for Responsible Investment ("UNPRI") as we have done for the last three years.

Summary of activities in 2021

Pillars	Objectives 2021	Metrics	Progress to date	Framework
 ESG at PLC level	<ul style="list-style-type: none"> • Engaging internal stakeholders on ESG including relevant training • Launch of ID Project, IP Group's diversity and inclusion initiative (more details on page 15) • Engaging external stakeholders 	<ul style="list-style-type: none"> • Non-financial KPI • Diversity and Inclusion metrics • Participated in COP26 • Investor meetings 	<ul style="list-style-type: none"> • 85% (2020: 70%) (aligned to KPI) • Two Exco employee members • Senior leadership team 38% female • Board 43% female 	<ul style="list-style-type: none"> • UN Global Compact • SASB • TCFD
 Responsible Investment	<ul style="list-style-type: none"> • Integration of ESG into investment decisions • Engaging with portfolio companies on ESG issues such as environment and diversity 	<ul style="list-style-type: none"> • Inclusion of ESG overview in IC meeting minutes • Rider outlining Ethical Investment Framework criteria in investment agreements 	<ul style="list-style-type: none"> • 70% response rate from portfolio by value 	<ul style="list-style-type: none"> • UNPRI • TCFD • ESG_VC membership
 Impact	<ul style="list-style-type: none"> • Creation of companies that make a positive contribution • Robust measurement and data 	<ul style="list-style-type: none"> • Exploring ways in which the positive impact of our portfolio can be further tracked, measured, and disclosed • Measuring how cleantech investments align to the EU's Green taxonomy 	<ul style="list-style-type: none"> • Opportunities aligned with the energy transition • Impact questions included in portfolio survey 	<ul style="list-style-type: none"> • TCFD • SDGs • SFDR



IP Group as a Responsible Investor

In 2021 IP Group focused on ensuring our approach to responsible investment runs through our investment processes, in particular how our EIF aligns with our investment approach and how this impacts our role as an investor.

We are aware that implementing a new framework across an existing portfolio and multiple geographies can be challenging and, as such, our approach continues to evolve. To this end, the Ethics Committee advises on our approach, meeting twice a year under the Chair of Professor Gordon Clark. It is also available to meet on an ad hoc basis should a particular question arise. This may include a question around a company with a technology that pivots to serve a sector that does not conform to the Ethical Investment Framework, for example.

EMBEDDING ESG INTO OUR INVESTMENT PROCESSES



Inclusion of an ESG overview in our IC meeting minutes - documentation of ESG assessment in the investment decision-making process (i.e. in the investment committee meeting itself and then ensuring this is recorded in the minutes);



We include a rider in our investment agreements with portfolio companies which contains a list of excluded sectors that companies should avoid doing business in, such as tobacco, gambling, production of weapons of mass destruction etc;



Throughout 2021, there have been several instances where the Ethics Committee has advised on ethical issues raised and these have been successfully dealt with;



A policy toolkit has been put together to provide template policies for portfolio companies such as data protection, anti-facilitation of tax evasion, equal opportunities and diversity, speaking up, health and safety. In particular our early stage spin-out companies have found this very helpful;



As part of IP Group's work around the 'Investing in Women Code' we have increased our focus on gender diversity in the investment process. We are a signatory in 'The Annual Investing in Women Code report' published by HM Treasury. This includes looking at how to improve female representation on investment committees, the Boards of our portfolio companies as well as in new investments;



Completion of a portfolio survey which was aimed at measuring and focussing on engagement with an industry standard survey in collaboration with ESG_VC, an organisation promoting ESG good practice in private equity and venture capital portfolios in collaboration with the British Venture Capital Association ("BVCA").





IP Group as a Responsible Investor

Responsible stewardship in practice

In 2021, our role as a steward focused on communicating with the whole portfolio to raise awareness of IP Group's growing emphasis on ESG. We distributed a letter to the extended portfolio outlining this and highlighting our ESG Policy and Ethical Investment Framework.

In addition, we worked with ESG_VC to roll out a BVCA industry approved ESG survey to our Top 20 and focus companies. Approximately 70% by value of our portfolio companies responded in full to this survey.

The BVCA aggregated data outlines companies' performance around key ESG areas.

The key take-aways from the survey we conducted are outlined in the graph opposite which demonstrates how IP Group portfolio companies are performing against a range of ESG factors. Portfolio companies performed particularly well on cyber security controls and board oversight as shown in Chart 1.

Our analysis of the results has enabled us to define the following portfolio engagement topics to focus on in the first instance, particularly as our direct involvement in many of these companies allows us greater scope to engage with their management teams on these issues:

- **Carbon reduction measurement and initiatives:** companies averaged a low score in this survey and it was identified in the TCFD reporting process (as seen on pages 27 and 28) that engagement on emissions reductions strategies would reduce any risk associated with climate change;
- **Diversity and inclusion:** engaging and educating portfolio companies on topics such as inclusive employment procedures and the importance of diversity of thought; and
- **General approach to governance:** ensuring good governance practices are in place through the provision of a policy toolkit.

BVCA METHODOLOGY

The %s used in this table represent the performance of the companies assessed against a theoretical total score, set by the BVCA.

Taking 'carbon emissions reduced' as an example, each company is given a score out of the maximum, i.e. best result. Scores are allocated based on the answers provided. For example, for the question 'do you measure your carbon footprint' an answer of 'yes' = 2 points, 'no, but plan to in the next 12 months' = 1 point and 'no' = 0 points. There are 4 questions on carbon emissions, and so the max score is 8. Each company is then given a % score, and the average score across all companies is given in this table.



Chart 1:
ESG_VC Assessment Performance by
ESG Outcome

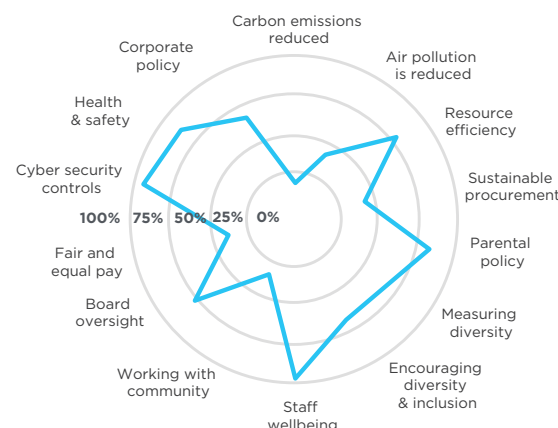


Chart 2:
ESG data for graph

	Carbon emissions reduced	22%
E	Air pollution is reduced	42%
	Resource efficiency	77%
	Sustainable procurement	43%
	Parental policy	84%
S	Measuring diversity	67%
	Encouraging diversity & inclusion	67%
	Staff wellbeing	93%
	Working with community	35%
G	Board oversight	76%
	Fair and equal pay	42%
	Cyber security controls	93%
	Health & safety	86%
	Corporate policy	66%

ESG at IP Group - Environment

COP26 in 2021 put the response to climate change, particularly from businesses, firmly in focus. Expectations from investors and consumers are rapidly increasing. Backing technologies that fight climate change is a significant opportunity for IP Group and our portfolio as outlined by our first full report against the TCFD recommendations. In order to align our operational approach with these opportunities, we have committed to working towards a net-zero reduction target by 2030 aligned with a science-based target of 1.5 degrees. We already offset all emissions as outlined on the next page.

IP Group is required to report on its annual greenhouse gas (“GHG”) emissions as part of the Companies Act 2006 (Strategic Report and Directors’ Report) Regulations 2018. IP Group is also required to report in line with Streamlined Energy and Carbon Reporting (“SECR”) requirements for the first time for the period 1 January 2021 to 31 December 2021, in line with its financial reporting period. These requirements include an overview of GHG emissions, intensity ratios, energy consumption and energy efficiency actions taken by IP Group over the reporting period for operational office locations.

Introduction

Despite the relatively low direct negative environmental impact of the Group, we have, for the fourth year, offset 100% of the Group’s direct 2021 CO₂ equivalent greenhouse gas emissions. Since 2018, we have

done this through a programme of supporting UK woodland creation certified under the Government’s Woodland Carbon Code through Forest Carbon.

Methodology

The methodology applied to the calculation of Greenhouse Gas emissions is the ‘GHG Protocol Corporate Accounting and Reporting Standard’. An ‘operational control’ boundary has been applied. Carbon conversion factors have been taken from ‘UK Government GHG Conversion Factors for Company Reporting – 2021’. Emissions are reported as CO₂e. Scope 2 emissions have been reported as ‘location based’.

Energy Use and Greenhouse Gas Emissions

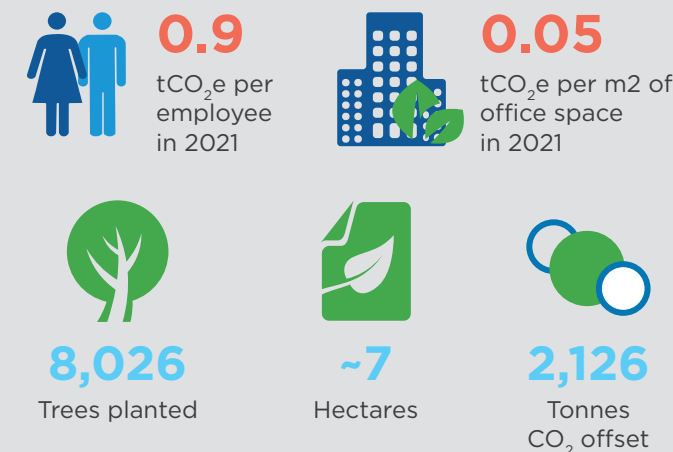
The table on the next page shows the total annual UK energy and associated GHG emissions for our Global Operations as required under the SECR regulations. This encompasses energy and emissions from office use and relevant business transport purposes. Reporting has also been expanded beyond the minimum requirements to include emissions associated with all business travel, waste generated in operations and staff commuting. The reporting period covered is 1st January – 31st December 2021. Of our total reported energy consumption 161,977kWh was directly related to our UK operations, producing GHG emissions of 53tCO₂e, 64% of our total.

Emissions Intensity

For purposes of baselining and ongoing comparison, the Company is required to express the emissions using a carbon intensity metric. IP Group reports two metrics; emissions/staff number in FTE and emissions per unit of office floor area in m². The resultant emission intensities for 2021 are 0.9tCO₂e/FTE and 0.05tCO₂e/m². These have reduced by 35% and 33% respectively in comparison to 2020.

Energy Efficiency Action

Energy consumption and emissions are still significantly lower than pre-COVID levels due to a reduction in staff office attendance and commuting and, primarily, through a significant reduction in business travel. These were again the main contributors to our low energy consumption during 2021, with the majority of meetings now being held virtually. Our offices incorporate a number of energy efficient technologies: the majority of light fittings are low energy LED and motion sensors are installed to maximise energy efficiency. Other appliances and large office equipment, such as printers and laptops are also of energy efficient design.



ESG at IP Group - Environment

II

We have, for the fourth year, offset **100%** of the Group's direct 2021 CO₂ equivalent greenhouse gas emissions."

Offsets

Despite the relatively low direct negative environmental impact of the Group, we have, for the fourth year, offset 100% of the Group's direct 2021 CO₂ equivalent greenhouse gas emissions. Since 2018, we have done this through a programme of supporting UK woodland creation certified under the Government's Woodland Carbon Code through Forest Carbon.

The Woodland Carbon Code delivers independently certified woodland creation projects – audited by UKAS accredited bodies to ISO standards – that offer tangible social and environmental benefits; it is the only standard of its kind in the UK. Woodland Carbon Code credits are an accepted mitigation mechanism under government corporate environmental reporting guidelines.

All Woodland Carbon Code certified projects offer public access as a core requirement, and woodlands also have a significant role to play in mitigating flooding, reducing air pollution, cleaning watercourses and creating habitat for biodiversity. An investment in woodland creation contributes to the UK's rural economy by helping to create jobs in the forestry and nursery sector, and also makes a contribution to the UK's national carbon budget, enabling the country to meet its climate change obligations.

The 2021 credits will contribute to our project at Lowther, near Penrith UK. This is converted arable and grazing land to sustainable forestry. There are 3079 trees planted over 2.16 hectares accounting for 1042 tonnes CO₂. The project brings additional benefits by helping flood mitigation and improving water quality.

Table – Energy Consumption and Emissions 2019 – 2021

	2019	2020	2021	% Difference vs 2020
On-site combustion (kWh)	42,592	n/a	n/a	–
Electricity (kWh)	385,759	67,165	169,604	–
Road Transport (kWh)	n/a	n/a	17,463	–
Total Energy (kWh)	428,351	67,165	187,067	179%
Scope 1 Emissions (tCO ₂ e)	8	0	0	–
Scope 2 Emissions (tCO ₂ e)	114	21	41	–
Scope 3 Emissions (tCO ₂ e)	852	118	42	–
Total Emissions (tCO ₂ e)	974	138	83	-40%
Emissions Intensity tCO₂e/FTE	8.7	1.4	0.9	-35%
Emissions Intensity tCO₂e/m²	0.4	0.07	0.05	-33%



ESG at IP Group - Governance, Cyber Security

IP Group aims to conduct its business in a socially responsible manner, to contribute to the communities in which it operates and to respect the needs of its stakeholders.

The Group also seeks to ensure that there is diversity in the supply chain, working with SMEs as well as larger organisations. Where possible, we work with local suppliers, therefore impacting positively on the communities where we operate. The Group is also a signatory to the Prompt Payment Code. IP Group seeks to operate as a responsible employer and has adopted standards which promote corporate values designed to help and guide employees in their conduct and business relationships. The Group seeks to comply with all laws, regulations and rules applicable to its business and to conduct the business in line with applicable established best practice. We take a zero-tolerance approach to bribery and corruption and implement and enforce effective systems. The Group is bound by the laws of the UK, including the Bribery Act 2010, and has implemented policies and procedures based on such laws.

Governance

The Group seeks to conduct all of its operating and business activities in an honest, ethical and socially responsible manner and these values underpin our business model and strategy. We are committed to acting professionally, fairly and with integrity in all of our business dealings and relationships with consideration for the needs of all of our stakeholders, including university partners, investors, suppliers, employees and the businesses in which the Group has holdings. IP Group endeavours to conduct its business in accordance with established best practice, to be a responsible employer and to adopt values and standards designed to help guide staff in their conduct and business relationships. As a publicly traded entity, IP Group actively seeks to engage and maintain an open dialogue with both institutional and private shareholders through its investor relations programme.

Policies

Copies of the Group's policies in relation to anti-corruption and bribery, anti-slavery, environmental, equality, diversity and inclusion, prompt payments, speaking up, anti-facilitation of tax evasion, data protection policy, health and safety, sustainability and ESG, ethical investment, stakeholder engagement and 'treating customers fairly' can be found in the ESG section of the Group's website: www.ipgroupplc.com. The Modern Slavery Statement is found on the homepage footer.



Cyber Security

Cyber security has been highlighted as one of the principal risks that the Group faces. The Board and committees have taken great interest in the systems, processes and training in place to mitigate this risk. Cyber Security reports are provided to the Audit & Risk Committee and the Risk Council with oversight from the PwC Internal Audit team. A number of recommendations stemming from a PwC Cyber Maturity Assessment have been resolved and further improvements are ongoing to continue to mitigate the risk of the evolving threat landscape. This area will continue to be monitored and reported on.

Measures to mitigate cyber security risk."

IP Group established a Global Cyber Forum and focused working groups to share awareness and knowledge across the Group and to get feedback on issues that staff are facing. The Group has a mandatory programme of IT & Cyber Security training for staff along with quarterly phishing training and annual penetration testing. Additional training is provided to staff that fall short of expectations and to react to unfolding situations such as remote working. The outcomes of this programme are reported to the Risk Council. Promoting staff awareness of emerging cyber threats, such as spear phishing, is a regular topic at all-staff meetings.

IP Group has been awarded Cyber Essential certification. The Group has extensive technologies in place to minimise the risk of intrusion on endpoints and network traffic along with monitoring systems to ensure the security of third-party cloud-based applications. Diligence is carried out annually on third-party suppliers to ensure that acceptable security is present to protect the Group's data.

Over the course of 2021, the threat of ransomware attacks has greatly increased. The Group established a working group to improve the ability to respond and recover from such an attack that included participants from all support functions of the business. A detailed cyber incident response plan is in place. The Group maintains a business continuity plan and reviews this plan annually. This plan includes playbooks to react to incidents such as a data breach or other cyber incident.

The Group takes the threat of a cyber incident very seriously and endeavours to mitigate the risk wherever possible, although it is recognised by the Board and management that it will never be possible to fully mitigate cyber risk.

ESG at IP Group - Community Engagement

Community Engagement

Following the expiration of IP Group's strategic partnership with Generating Genius, the Group began selecting a new partner through a series of staff consultations. Staff were invited to suggest charities that aligned with the Group's mission of supporting world-changing innovation, namely organisations that support STEM education or help improve diversity in business and science. Of the 20 charities nominated, five were invited to submit partnership proposals and present in a Company all-staff meeting alongside Generating Genius.



The Group's new partner charity, **IntoUniversity**, was selected via a staff-wide final vote. **IntoUniversity** runs a network of learning centres across the UK, helping young people from disadvantaged backgrounds work towards their chosen ambitions. The Group has committed to a £30,000 annual donation that will directly support **IntoUniversity**'s Brixton learning centre, which specialises in STEM subjects. IP Group will also participate in and organise key events throughout the partnership. The first such event, an Insight Day, was held in June 2021 and saw 26 young people join an online session for a series of talks on careers, followed by a group challenge of developing a climate resilience plan for the UK using online tools.

GIVING 20 AT 20

As part of the commemorations for IP Group's 20th anniversary, the charity committee ran an internal giving scheme called "Giving 20 at 20". The scheme invited staff from across the Group to nominate 20 charities to receive a one-time £1,000 donation, for a combined total of £20,000. The chosen charities tackle a range of issues, from marine conservation to homelessness.

The following charities were supported via Giving 20 at 20:

- The Professor Malcolm Sargeant Charitable Trust
- Marine Conservation Society
- Family Services of Montgomery County Pennsylvania
- Simon Flynn Educational Foundation
- The Raystede Centre For Animal Welfare Limited
- CHAS (Children's Hospices Across Scotland)
- National Youth Science Forum
- The Royal Marsden Cancer Charity
- Deadly Science Ltd – nominated twice
- The Royal National Lifeboat Institution (RNLI)
- Saffron Walden Riding for the Disabled
- Whittington Babies
- Petals
- Crisis UK
- Myeloma UK
- Octavia Foundation
- Helen & Douglas House
- MND Association
- Eureka! the National Children's Museum



£20,000
donated to
20 charities
chosen
by staff

ESG at IP Group - Culture

II



The success of IP Group depends on the quality of our talent across a broad range of disciplines.”

Aligning our people with our purpose

The success of IP Group depends on the quality of our talent across a broad range of disciplines.

Our purpose – addressing some of the fundamental challenges faced by our planet by evolving great ideas into world-changing businesses – drives a deep intrinsic level of commitment from our team. Our continued focus on our culture seeks to build on this, with the ultimate aim of creating an environment which allows us to attract, retain and engage exceptional people.

During 2021, we made appreciable progress against our main development areas, as follows:

Priority Area	Objective 2021	Progress 2021
 Inclusion & Diversity	<ul style="list-style-type: none"> • Increase the diversity of thought and experience within our teams and ensure everyone feels included within our business. • Make sure we take advantage of the broad experience within our current population to improve our decision making. • Redesign critical processes to improve inclusion and diversity. 	<ul style="list-style-type: none"> • Appointment of two Employee Executives to the Executive Committee. • Formation of our Inclusion & Diversity Project, the 'ID Project' team and sub-teams. • Improvements to recruitment policy/procedure, roll-out 'rules of engagement' to guide inclusive meetings. • Support of the first #100blackinterms programme.
 Learning & Development	<ul style="list-style-type: none"> • Invest in the development of our people. Embed a dual focus on both professional capability and broader skills. • Aim to ensure our people are fully equipped to perform in their role, and ready to progress within our business when the opportunity presents. 	<ul style="list-style-type: none"> • Launched a radical new approach to learning and development. • Commenced the roll-out of personalised learning plans to all employees. • Focus early interventions on the protection of employee wellbeing.
 Organisational Development	<ul style="list-style-type: none"> • Improve the operational effectiveness of the business. • Facilitate the organisational and structural changes needed to optimise both culture and commercial outcomes whilst ensuring we remain sensitive to the needs and requirements of our broader stakeholder group – especially our people. 	<ul style="list-style-type: none"> • Formation of the Executive Committee. • Continued improvement in eNPS scores. • Empower and support the team in embedding flexible working for the long term, and move office to facilitate this approach.



ESG at IP Group - Inclusion & Diversity

Inclusion & Diversity

Maintaining a diverse and inclusive working environment is central to our culture at IP Group and something we remain highly committed to achieving. Our success depends upon the quality of investment decisions we make and the advice we give, both of which can only be improved when influenced by a wide range of representative views.

Employee Executives

Our commitment in this area was exemplified during 2021 by the recruitment and appointment of two Employee Executives to the newly constituted Executive Committee. Joyce Xie, Managing Director, Greater China, and Lisa Patel, Partner, Life Sciences were appointed to the positions and the Executive Committee in June 2021 for a minimum period of one year. The purpose of these appointments was to maximise the quality and diversity of thought applied to the decision-making process within the Group.

The appointees, who must be employees of the Group and must apply formally for the role, supplement the collective strengths of our permanent Executive Committee members with high potential, talented employees whose role doesn't automatically qualify them for a seat on such Committee.

It is important to note that these positions do not act as the representatives of employees at Executive Committee. As set out in more detail on page 17, IP Connect performs this function, primarily via the sponsorship and attendance of Aedhmar Hynes as the Designated Non-executive Director (NED) for workforce engagement, who represents these views at the main Board. Rather, our Employee Executives sit as members of the Executive Committee in their own right, adding additional perspectives into discussions and decisions based on their own unique experience, skills and outlook.

The criteria for selection were determined by the Executive Committee based on an assessment of existing capabilities, and the additional perspectives that permanent members felt would make the committee more effective. These included the ability to offer constructive

and challenging input at a senior level, a keen interest in scientific innovation and a strong track record of performance, as well as being able to demonstrate one or more of an innovative mindset, team skills, a global outlook or a background as an active investor. Appointments were based on a rigorous process, with the final decision being made directly by the CEO.

Since appointment, Joyce and Lisa have made significant contributions to both debate and decision within the forum to the benefit of the Group and our stakeholders. As a result of the success of these initial appointments, we are committed to retaining Employee Executive roles within our leadership structure through 2022 and beyond. We are also intending to explore whether there are other decision-making forums within the Group which would benefit from similar appointments.

Across our wider population we are, of course, committed to equal opportunities when it comes to recruitment, selection and development. But it's not only a focus because it's the right thing to do; we believe our people are likely to be happier and more productive if they can be themselves at work.

Our ultimate ambition is to be market-leading in this area. To help us to build towards this over the coming years, in 2021 we appointed an external adviser, Equality Group, to work alongside our People Team, Executive Committee, Designated NED and Board to assist us in building a vision, strategy and delivery framework to guide our development.

Equality Group have assisted us in the evolution of our planned Diversity Oversight Committee into the 'Inclusion & Diversity Project' team. Drawn from our global employees, the IDP will be critical in the definition of a coherent, holistic, employee aligned strategy for 2022 and beyond, and therefore the set-up of this group (and embedding its effectiveness) has been the main priority of our work to date.



As Managing Director of IP Group Greater China, I am pleased to bring my international perspective and global capital market experiences to the Group's decision-making process. I feel the Executive Committee at IP Group values different challenges and is genuinely open to diversity of thought."

JOYCE XIE: MANAGING DIRECTOR
OF IP GROUP GREATER CHINA

The ID Project has defined three areas of focus for improvement for the Group. Working groups have been formed to address each area and make recommendations to the Executive Committee and Board in the following areas:

- **"Everyday culture"**: Looking at the impact of how we work and interact together, covering the definition of behavioural norms, respect, psychological safety, constructive conversations and a feeling of comfort for all.
- **"People & Pipeline"**: Looking at our approach to recruitment, promotion and development, our external positioning and how we might support the development of emergent talent.
- **"Portfolio"**: Looking at how we provide guidance, support and a two-way learning pathway with our portfolio companies, the metrics we use to measure progress and impact within the portfolio and how we align to best practice in the "S" of ESG.

ESG at IP Group - Inclusion & Diversity

As set out on page 15, once this work is complete, the IDP will make recommendations on long-term objectives, strategy and delivery framework to the Executive Committee, who remain responsible for our overall progress in this area. However, in recognition of the need to continuously improve where we can, during 2021 we have made a number of positive improvements, including:

- **Employee Executives:** As set out on page 15, the appointment of our first Employee Executives have added significant diversity of thought and experience to our Executive Committee.
- **Recruitment:** Revision of our policy and approach to recruitment, to ensure diverse candidates are presented to the business and have an equal chance of success.
- **Rules of Engagement:** Definition of more inclusive 'rules of engagement', which guide our approach to internal meetings and other interactions, and assure we are inclusive in our approach.
- **#100 Black Interns:** Our first internship under this programme, Sol Hagan, worked alongside our cleantech team in summer 2021. Sol found the experience valuable and contributed to the success of the team during his time with us. We will be continuing to support this programme into 2022 and beyond.
- **Ted Talks & Tea:** A regular programme of challenging discussion events, run directly by members of the team and open to all employees. Subjects covered in 2021 include female representation in the media; LGBTQ+ rights; mental health and depression; being Muslim and British; facing disability; and the relative impact(s) of determination and IQ on success.
- **IntoUniversity:** As our nominated charity partner, we provide both financial and practical support to IntoUniversity. During 2022, we plan to run a number of events in conjunction with them, including an



intern programme and work experience events. More details can be found on page 13.

- **Diversity Data:** We recognise the need to measure our success in this area. To allow us to both set a baseline and measure our success over time, we worked with both legal advisers and employees to develop a voluntary diversity data collection approach, using the EHRC recommendations as a guide. This was rolled out in autumn 2021, and the initial data analysis and follow-on work (including the potential development of an IDP dashboard) will follow during 2022.

Our ambition is to be diverse and inclusive across all characteristics. We believe this approach is both responsible and sustainable. By creating a diverse and inclusive employee group we also believe we will improve the quality of our management and investment decisions, to the ultimate benefit of all stakeholders.

In the recent past we have focussed on gender representation as a proxy of our progress in this area, and (with appropriate data) will seek to move beyond this narrow definition of diversity. That said, it is encouraging to note that senior female representation within IP Group has also improved over the last year, as shown in the table opposite:



43%

FEMALE REPRESENTATION IN
IP GROUP'S BOARD



38%

FEMALE REPRESENTATION IN
SENIOR LEADERSHIP

Gender split as at 31 December 2021¹

	Male		Female	
	#	%	#	%
Board	4	57%	3	43%
Executive Committee	7	63%	4	37%
Other Senior Management/Partners	16	62%	10	38%
Combined SLT	23	62%	14	38%
All employees	53	53%	47	47%

¹ During 2021, our management structure fundamentally changed with the formation of our Executive Committee. As a result, the categorisation of employees has also changed. This data is therefore in a different format to that presented in 2020. It is aligned with the data submitted for the 2021 FTSE Women Leaders Review, and as a result we expect this format to remain consistent for the next five years.

RULES OF ENGAGEMENT

THINK POSITIVE
Focus on promotion, not prevention

BUILD UP OTHERS
Amplify other's ideas; don't critique - offer solutions

CHALLENGE YOUR BIAS
Ask yourself "why do you really think this?"

PRACTICE GROWTH MINDSET
Learn from difficult and uncomfortable situations

LISTEN ACTIVELY
Be fully present, listen carefully, be open in your body language, ask follow up questions



ESG at IP Group - Engagement



During 2021, we launched a new personalised learning plan structure”

Developing Talent

Our people gain significant experience from working with a number of start-up enterprises and seeing first-hand what works and what doesn't, sharing knowledge and discussing these experiences both within and across our teams.

We also believe that more formal development support is critical to the attraction, retention and motivation of our employees, and to maximise the positive impact of our people on all of our stakeholder groups. We have a small number of employees, with very different roles,

experience and skills, and so to provide effective support in this area we have developed a highly individual approach.

During 2021, we launched a new personalised learning plan structure. Our approach is based around 'curating' an effective mix of learning interventions for each individual employee over the short, medium and longer term. The plan supports both current role and individual career aspirations and will be integrated with both performance management and succession planning during 2022.

Each individual plan is based upon an exploration of learning/development needs in three distinct areas, as set out below:

- **Build:** Underpin the establishment in role and (then) career progression of our people by supporting formal learning directly relevant to the role they undertake within the business.
- **Empower:** Train and embed the (more transferable) skills, so that our people are able to maximise the impact and value of their professional capability.
- **Protect:** Integrate the skills, knowledge and interventions that our people require in order to stay physically and mentally healthy into management conversations and personal targets, ensuring our people remain willing and able to deploy the skills they have learned to the benefit of our business and wider stakeholders.

Individual learning plans are co-owned by employees and management, with our People team providing advice, curation and course management in the background.

Feedback from employees following the initial launch is very positive. As expected, there is a significant appetite for learning across all streams, which we will continue to support throughout 2022 and beyond. We expect this ongoing support to have a positive impact on engagement (both eNPS score and more widely), productivity and retention.

Listening to our people

Ensuring our people remain engaged, motivated and aligned with our ambition to make a positive impact upon the world is critical. We therefore place a high level of importance upon both hearing from and responding or reacting to our employees on a wide range of issues.

During 2021, we continued with our regular cycle of meetings with IP Connect, our employee forum. IP Connect, which is sponsored and attended by Aedhmar Hynes as the Designated Non-executive Director for workforce engagement ("Designated NED"), acts as a conduit between the Board and the wider team. During 2021, the members of the group and their constituents provided feedback on a broad range of topics.

In addition to the qualitative feedback provided by IP Connect, we regularly engage with all employees to gather opinions on specific topics via our regular 'Voice of IP Group', or 'VIP' surveys. These surveys run every quarter, and measure employee Net Promoter Score across the business, as well as gathering qualitative feedback on development areas. During 2021, these topics included inclusion & diversity, future working arrangements and office moves, reward, career development and our strategy.

As we move into 2022, our commitment to seek out, engage with and act upon the feedback of our employees remains as strong as ever. IP Connect will continue to meet regularly, representing the views of our employees to the Executive Committee and the Board. Outside of this forum, our employees are able to easily access our executive team, wider leadership group or the HR lead, and are encouraged to do so.

ESG at IP Group - Engagement

Engaging our team

Making sure our team is engaged and aligned with our purpose has always been important to us. This remained challenging during 2021, with face-to-face interaction severely limited by the ongoing impact of the global pandemic.

Throughout 2021, we have maintained a programme of regular communication to ensure our global employees are able to remain in touch with the Company whilst continuing to work remotely. This programme has included a combination of regular updates from the CEO and other executives, bi-weekly online all-staff update meetings and a programme of themed events and meetings throughout the year. Our aim throughout has been to minimise the negative impact of remote working, including during periods of lockdown, on the engagement and experience of our employees. Our success in this area will underpin a more permanent move towards flexible working patterns to the benefit of our employees, which is covered in more detail on the next page.

We understand that employee engagement is far more than just a number and aspire to build a team that is genuinely engaged with and motivated by our core purpose. That said, it is encouraging to note that during 2021 we achieved our objective of maintaining or slightly improving an already very high eNPS score (see graphic), with a further +5 point gain delivered against a backdrop of continued uncertainty and change, as well as significant changes in the leadership of the business.

We believe this increase in active employee engagement contributed to a further reduction in unplanned turnover from 2021 levels, achieved despite the challenges of remote working and increased market pressure in the latter part of the year. Whilst 26 colleagues left the business during 2021, only 3 leavers were unplanned. Encouragingly, each of these individuals left on good terms in order to pursue career opportunities not available within the Group or our portfolio. The remaining employees left as a result of either corporate transactions (the majority the result of the transfer of ownership of IP Group, Inc) or as a result of planned changes.

We continue to believe that a fair, equitable and engaging reward structure plays a central role in motivating our people to do exceptional things and also contributes significantly to overall employee satisfaction. During 2021, we implemented evolutionary improvements to our existing reward package in response to feedback from employees. These improvements included salary benchmarking for all roles and a clearer articulation of the link between individual performance and Annual Incentive Scheme (bonus) outcomes.

In 2022, our objective is to maintain current levels of employee engagement, as measured by eNPS. We will continue to collect regular qualitative and quantitative feedback from our employees and communicate regularly.

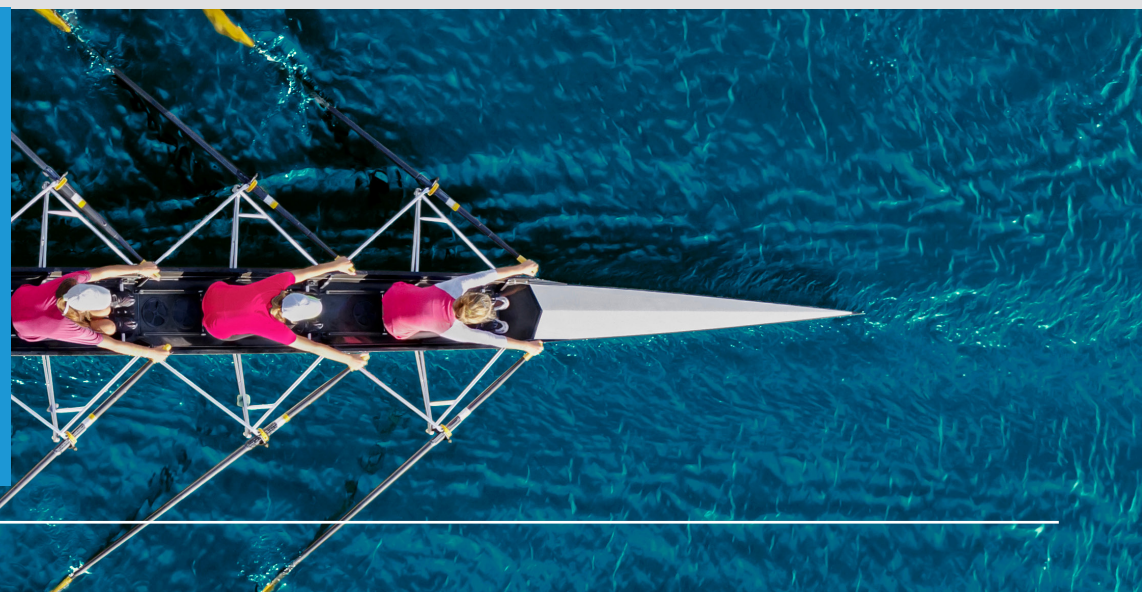
eNPS

Improved from
+23 to +28 during 2021

- Measured using responses to 'I would recommend IP Group as a great place to work' in our regular survey
- Question answered on scale 1-5
- eNPS = % employees answering 5, less % answering 1, 2 or 3. Outcomes range from # -100 (low) to +100 (high)

¹ CultureAmp defines a positive response as either a 4 or a 5 therefore this figure uses Promoters (5s) + Passives (4s) to ascertain positive engagement over 2020.


80%
 OF EMPLOYEES ARE
 POSITIVELY ENGAGED¹



ESG at IP Group - Flexible Working

Flexible and open working

The pandemic has taught us that the nature of our work lends itself to working successfully from home for much of the time. Many of our people have no desire to return to a long commute on every weekday. The increased quality of video conferencing, document sharing, and cloud computing has supported effective remote working and has contributed to improved efficiency in certain areas.



Adapting our working environment to suit.”

productively and has also resulted in a significant reduction in both financial and environmental costs.

At the same time, the feedback we have been gathering throughout the pandemic has consistently highlighted important interpersonal interactions that are either not as effective or cannot be done remotely. It is much harder to provide coaching, counselling, or advice and feedback and it is not possible to celebrate successes as a team. Off-the-cuff, value-add interactions with direct colleagues are more difficult, as are more formal cross-team collaborations.

More than this, our people miss the natural variation of people and space, learning opportunities, casual network and basic social interaction that sharing a physical space offers. We are also mindful of the increased risks of burnout when there is less physical separation between ‘home’ and ‘work’ and that not everyone’s home makes for an ideal office space.

We would like to support and embed this increased flexibility for our people over the longer term, further emphasising this already important feature of the IP Group culture. The significant reduction in commuting and business travel has allowed people to use their time more

We are conscious not to make permanent long-term decisions based on the relatively short-term experiences of the past couple of years. However, we do consider that themes such as increased flexible/remote working and use of technology in the workplace are likely to continue post-pandemic and have begun to adapt our working environment to suit.

Flexibility is the key driver underpinning this change. We will empower our people to choose the environment most appropriate to achieving their targets and goals, and to best support their colleagues. This might be at home, in the office or elsewhere – we understand that this might change depending on their current projects and tasks, whether they need to work with others or alone, or whether they simply desire a change for their own wellbeing.

In the office, we believe that a desk should no longer be seen as a permanent home, but instead the wider office environment viewed holistically as a space for a variety of purposes, and to accommodate the whole Company when required. We have recently moved the location of our London head office to a location and space more suitable for supporting this vision.

We aim to provide office spaces that represent the heart of our business, embodying our mission, vision, and values. Places that function as a magnet rather than relying on mandated attendance, where people come because they want to and not because they are told to, and where the offering is conducive to their working needs. The new office is based in London’s King’s Cross, known as the ‘Knowledge Quarter’ – one of the highest densities of knowledge-based businesses and science organisations in the world.



ESG at IP Group

Protecting our people

All our people are responsible for the promotion of, and adherence to, health and safety measures in the workplace. Our Chief Financial and Operating Officer has overall responsibility for the implementation of the Group's health and safety policies and procedures.

The primary purpose of the Group's health and safety policy is to enable all of the Group's people to go about their everyday business at work in the expectation that they can do so safely and without risk to their health. During the year ended 31 December 2021, no reportable accidents occurred under UK Health and Safety regulations.

Objectives for 2022

We expect the priority development areas in HR/Talent to remain broadly consistent with 2021 over the coming year.

In particular, our aspiration is to continue the development of a market-leading, well-rounded and coherent approach to inclusion and diversity. This aligns with our culture and purpose and is clearly increasingly important to a range of stakeholders. This includes employees, for whom progress will underpin employee engagement and maximise the quality and impact of our talent.

We will also work to further embed our learning offer, providing a compelling, flexible learning offer to all of our people to both support career development and further improve engagement, retention and quality, again to the benefit of all stakeholders.

Outside of these continuing priority areas, we are focused on incremental improvements in service levels for employees, particularly through ongoing improvements in the design and delivery of our reward schemes. We have also recently completed our Triennial Remuneration Review, and will continue the work required to engage employees. Finally, and alongside other members of Executive Committee, work has begun on the 'Talent' implications of the emergent Group Strategy. Whilst, at the time of writing, this process is in the early phases, it seems likely that the outcome(s) will influence HR priorities throughout 2022 and beyond.





IP Group's approach to impact

IP Group's approach to impact continues to evolve. The Group aligns with the Impact Management Project, a forum for building global consensus on how to measure, assess and report impacts on people and the natural environment, by defining impact as 'investing in companies that benefit stakeholders by having a positive effect on society and sustaining long-term financial performance'.

Huge scope for positive impact."

IP Group portfolio companies continue to have huge scope for positive impact. As an early-stage investor in sectors with a sizeable funding gap, IP Group has played a key role in facilitating the development of potentially ground-breaking sustainable innovations.

Science, technology and innovation, combined with development financing, have been identified by the UN as one of the two main "means of implementation" for the achievement of its 2030 agenda.

How we measure impact

IP Group is in the process of developing a model for measuring our contribution to the environment or society around three key themes:

Tech-enriched future

Healthier future

Sustainable future

Measuring progress in 2021

As part of the progress towards measuring the real impact of IP Group's portfolio in 2021, we have looked at the proportion of IP Group's net asset value ("NAV") as it aligns to the SDGs by determining whether the business activities of our portfolio companies meet the targets of any SDGs.

There continues to be a concentration on the six most relevant SDGs to the Group:



Methodology

We have taken the top 20 assets by value from IP Group's portfolio as at December 31 2021, which account for 80% of the portfolio's value. Out of the 20 companies, 19 are aligned to relevant SDGs.

Top 20 by SDG alignment

- 82% of top 20 by value are aligned to SDG 3
- 17% of top 20 by value are aligned to SDGs 7 and 9

Top 20 portfolio companies by SDG alignment



- Good health and well-being
- Affordable and clean energy
- Industry, innovation and infrastructure

Example of model

Theme	Sustainable Future
Additionality	Do we enable a pathway to exist that otherwise wouldn't
Chosen metric related to theme	Long-term carbon mitigation impact
Related Framework	SFDR/SDG/Emerging Climate Technology Initiative (CDP initiative)
IP Group 'metric' (e.g.)	Backing a new technology through supporting R&D, providing funding and business support to a technology to take it to market

At Group level we:

- Support the health and wellbeing of our employees
- Provide training opportunities to continually develop our employees
- Have implemented a quarterly speaker series with 'high impact women' in our industry
- Support community projects that support talented young people from disadvantaged backgrounds
- Endeavour to conduct our business in accordance with best practice

SDGs we align to



Impact

3 GOOD HEALTH AND WELL-BEING

7 AFFORDABLE AND CLEAN ENERGY

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES


PORTFOLIO COMPANY	SECTOR/ GEOGRAPHY	PORTFOLIO COMPANY	SECTOR/ GEOGRAPHY	PORTFOLIO COMPANY	SECTOR/ GEOGRAPHY	PORTFOLIO COMPANY	SECTOR/ GEOGRAPHY
AnkeRx Pty Ltd	Australasia	Azuri Technologies	Cleantech	Helio Display Materials Limited	Cleantech	AMSL Innovations Pty	Australasia
Artios Pharma Limited	Life Sciences	Bramble Energy	Cleantech	Magnomatics Limited	Cleantech	Aqdot Limited	Tech
Centessa Pharmaceuticals plc	Life Sciences	First Light Fusion Limited	Cleantech	Oxbotica Limited	Cleantech	Oxbotica Limited	Cleantech
Crescendo Biologics Limited	Life Sciences	Mixergy Limited	Cleantech	Mixergy Limited	Cleantech		
Diurnal Group plc	Life Sciences	RFC Power Limited	Cleantech	C-Capture Limited	Cleantech		
Enterprise Therapeutics Holdings Ltd	Life Sciences	C-Capture Limited	Cleantech	Featurespace Limited	Tech		
Genomics plc	Life Sciences			Garrison Technology Limited	Tech		
Gripable Limited	Life Sciences			Import.IO, Inc.	Tech		
Hinge Health, Inc.	Life Sciences			Intrinsic Semiconductor Technologies Limited	Tech		
Ieso Digital Health Limited	Life Sciences			Quantum Motion Technologies	Tech		
Istesso Limited	Life Sciences			Navenio Limited	Tech		
Microbiotica Limited	Life Sciences			Audioscenic Limited	Tech		
Mission Therapeutics Limited	Life Sciences						
Oxehealth Limited	Life Sciences						
Oxular Limited	Life Sciences						
PsiOxus Therapeutics Limited	Life Sciences						
Pulmocide Limited	Life Sciences						
Carisma Therapeutics, Inc. – UK	Strategic						
MOBILion Systems, Inc. – UK investment	Strategic						
Oxford Nanopore Technologies plc	Strategic						
Navenio Limited	Tech						

- Australasia
- Cleantech
- Life Sciences
- Strategic
- Tech

CASE STUDY



CLIMATE TECH SHOWCASE AT COP26

In November 2021, the IP Group Cleantech team hosted a 'Climate Tech Showcase' at COP26 in Glasgow exhibiting 10 science-based businesses with technologies fundamental to the net zero transition. Cleantech portfolio companies including Bramble Energy, First Light Fusion, C-Capture, RFC Power and Mixergy displayed their technologies in an event also attended by Lord Adair Turner, chair of the Energy Transitions Commission ("ETC").

Lord Turner (pictured) gave an overview of progress of the talks at COP26 and also highlighted IP Group's role in the ETC and in supporting and developing new technologies.

While in Glasgow, IP Group also announced a partnership with Reaction Engines Limited and the Science and Technology Facilities Council ("STFC"). The new joint venture will design and bring to market lightweight and compact ammonia reactors to enable the use of ammonia as a zero-carbon fuel for use in transport applications, such as aviation and marine shipping, in addition to other hard-to-decarbonise applications such as power generation, particularly 'stranded grids' or 'off grid' applications. The reactor will catalytically crack the ammonia into an easy to combust fuel for gas turbines and internal combustion engines.

Link to SDGs:



CASE STUDY



NAVENIO – THE RIGHT CARE TO THE RIGHT PEOPLE AT THE RIGHT TIME

Navenio's indoor location technology can be used as a powerful tool in any business that wants to utilise and benefit from indoor location data for different users and applications.

In healthcare settings, Navenio's core location technology works where GPS does not and has been described as the 'Uber for staff in healthcare'. That includes in a 5,000-room hospital across multiple floors, with hundreds of entrances, 24/7.

The technology allows hospital management to see the flow of people through its infrastructure, take measures to mitigate the spread of viruses like COVID-19, and make the most effective use of its team to help get to the patients that need it most.

A smartphone is all that is needed for Navenio to work. It has pioneered frictionless, accurate and robust indoor location solutions, built on award-winning science from the University of Oxford and enabled by simply using sensors in existing smartphones.

Navenio has a dramatic effect on workflow and productivity. This includes:

- A huge step change in day-to-day tasks carried out: nearly double the amount of work is being completed by the same teams;
- Increased capacity and speed across multiple teams: e.g. patient transport capacity has increased over 30%;
- Significant improvement in service levels and quality: reducing wait times and increasing patient safety; and
- Better experience for staff, teams and patients overall; ultimately improving patient outcomes.

Link to SDGs:





Reporting and Transparency

II

Low exposure to climate-related risks; large number of companies with a significant opportunity.”

Climate Risk and Opportunity analysis of IP Group plc and selected portfolio

In 2021, IP Group commissioned SLR (a research provider) to perform a portfolio climate risk and opportunity and scenario analysis exercise. The main focus of the analysis was on an IP Group portfolio sample of 30 companies which includes the top 20 (as of 30 June 2021) by value, the cleantech portfolio companies and some relevant outliers.

The methodology aligns to the TCFD recommendations and reporting framework. In particular, risks and opportunities are as categorised in line with the TCFD categories for both physical (acute and chronic) and transition (policy and legal, technology, market, and reputation) risks. The risk determination methodology aligns to Intergovernmental Panel on Climate Change (“IPCC”) best practice and guidelines. Risks are scored for both near (<5 years) and long-term (>5 years) time horizons and are also scored in line with the three different climate scenarios as proposed by the Network for Greening the Financial System (“NGFS”).

Outcomes

- The portfolio analysis exercise found no ‘red flags’ in the portfolio. Several long-term physical risks were identified relating to product deployment in the field, where portfolio companies may be exposed to the impacts of a changing climate, particularly in higher-emissions/higher-warming scenarios.
- The portfolio is well positioned to benefit from the transition to a lower carbon economy due to its low exposure to climate-related risks and because of the large number of companies whose core technology and/or product offering represents a significant opportunity as demand can be expected to grow as the world decarbonises. This is particularly true of the cleantech sector holdings.

Opportunity

Climate-related opportunities were identified for each company in the sample portfolio. Opportunity scores were based on two terms: the size of the opportunity and the ability of the company to execute the opportunity.

Maximum opportunity scores were given to multiple cleantech companies in the sample portfolio as the core technologies and products of the companies currently align with climate-related opportunities associated with the low carbon and energy transition.

The total current value of these cleantech companies is over £100.9m and many of the highest opportunity scores in the assessment link to the ability of these companies to access large markets as demand for energy transformation, reduction, and storage grows.

Beyond the highest opportunity scores, many of the other companies in the sample are able to capitalise on mid-sized opportunities associated with, for example: increasing energy and resource efficiency and reducing waste; accessing renewable energy via a third-party supplier or developing their own on-site generation systems to reduce energy costs; increasing partnerships to help cross-selling of products and services and extending product ranges to access markets that largely align with existing business models.

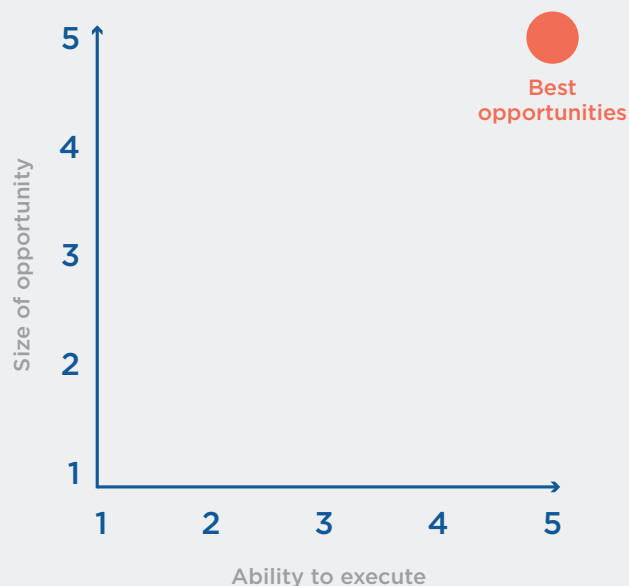


Reporting and Transparency

Climate Risk and Opportunity analysis of IP Group plc and selected portfolio

The below tables show how opportunities have been scored as a function of size and ability to realise.

Prioritising opportunities



SIZE OF OPPORTUNITY – CHARACTERISTICS FOR SCORING

1	<ul style="list-style-type: none"> Very small market Not very high margin/profitable product/service Very strong competition/very small savings
3	<ul style="list-style-type: none"> Neutral
5	<ul style="list-style-type: none"> Very large market Very high margin/profitable product/service Not very much competition/very large savings

ABILITY TO EXECUTE – CHARACTERISTICS FOR SCORING

1	<ul style="list-style-type: none"> Completely different to existing business Completely misaligned with existing brand Completely misaligned with existing skillset of employees Very high cost to execute
3	<ul style="list-style-type: none"> Neutral
5	<ul style="list-style-type: none"> Very similar to existing business Very aligned with existing brand Very aligned with existing skillset of employees Very low cost to execute

Opportunity examples

	Opportunity Size	Ability to Execute
Bramble Energy Ltd Core technology and product offering aligns with expected demand growth associated with transitions to low carbon economies.	5	5
C-Capture Ltd Ability to accelerate growth by developing partners in a broader range of industries associated with CO ₂ emissions (e.g., fossil fuel industries, raw materials manufacturing industries, waste and transport industries).	5	4
All companies Engagement opportunities with portfolio companies to reduce energy costs (e.g., through switching to alternative energy providers) and engage with Paris Climate Agreement and UK Net Zero aligned strategies to promote brand reputations.	4	5

Reporting and Transparency



TCFD overview

IP Group plc takes the TCFD reporting requirements seriously. This year we built on our progress from the previous year to perform an in-depth climate risk and opportunity analysis on a sample portfolio. We believe this to be the most material part of the business in relation to climate change. Some TCFD recommendations will take more time for IP Group to fully address and we are working towards these in the course of 2022 and 2023.

In line with the UK Listing Rules (Listing Rules) our TCFD-aligned disclosures as they stand are included in the annual financial report and are consistent with the TCFD Recommended Disclosures. In particular, the TCFD Final Report 2017 and the TCFD Annex 2017 (as well as 2021 updates to both), including supplementary guidance for all sectors.

The table to the right summarises IP Group's response to the TCFD recommendations as a result of the climate risk and opportunity and scenario analysis exercise.

Area of focus

Governance

The organisation's governance around climate-related risks and opportunities.

- The Board as a whole reviews IP Group's approach to ESG, climate change and related policies and addresses specific issues if they arise;
- Day-to-day accountability for ESG, including climate change related issues, rests with the CEO;
- The CEO has established a number of committees and working groups to support him in overseeing and monitoring policies and procedures to address issues if they arise, including: Ethics Committee, ESG Committee, RI Working Group, ESG-plc Working Group and Audit and Risk Committee;
- The ESG Committee meets quarterly and reports into the Executive Committee highlighting any climate-related issues;
- The Ethics Committee oversees any issues relating to breaches of the Ethics Framework in relation to climate change and investment - this may include whether a technology is being used for a new non-aligned application or assessing an investment from a non-aligned investor;
- The ESG-plc and RI Working Groups meet once a month and implement workstreams; and
- The Audit and Risk Committee oversees climate change-related reporting requirements.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.

- In 2020, IP Group conducted an ESG materiality study with key stakeholders which highlighted the need for further assessment of risks and opportunities from climate change across the portfolio. The clear message related to environmental issues is the importance of the distinction between the direct impact of IP Group plc, which is minimal and being actively offset and the indirect impact of the portfolio companies. Almost all recipients noted the importance of looking in more detail at the portfolio companies and the need to report on their progress towards increased environmental disclosure.
- Focus in the 2021 TCFD work is on analysis of the portfolio and IP Group operations looking at risks and opportunities over the different time horizons and scenarios as laid out by the framework.

Progress this year

- Climate change and the energy transition is a key theme in IP Group's strategic approach.
- Presentation to ESG Committee and Chair of the Board on portfolio climate risk and opportunity research.
- IP Group is producing a Carbon Action Plan which will lay out targets for reducing emissions.
- CEO attended COP26 where he gained significant insight into the economics of climate change.

Further information

Details of carbon reduction targets on page 10

- Carried out climate risk analysis of portfolio and IP Group plc at operational level to identify risks and opportunities across different time spans (less than and more than five years) and across three scenarios.
- Identify risks as aligned with TCFD categories of transitional and physical.
- Assess the resilience of IP Group plc and its portfolio to climate risks – legal risk identified as most material to IP Group plc and tech risk to the portfolio.
- Assess the opportunities – cleantech portfolio companies dominate the highest opportunity scores.

Further information

See page 25 for detailed analysis

Engage portfolio on carbon emissions reductions – see also page 9 for ESG data

Future focus

- Clear communication of climate-related issues in CEO report to Board.
- Training around significance of climate-related issues for Board.
- Board oversight of Carbon Action Plan as part of broader sustainability approach.
- Exco to consider how this insight can be integrated into strategic approach.

Focus on quantifying opportunities

- **Highest opportunity** scores (portfolio companies) are associated with products and technologies that currently **align with low carbon and energy transitions** and can be associated with large and growing markets.
- **Measure and assess how to monitor the growth of opportunity.**
- Where appropriate, partner with select portfolio companies on tailored climate change value-creation plans.

Reporting and Transparency cont.



TCFD overview cont.

	Area of focus	Progress this year	Future focus
Risk Management	<p>Disclose how the organisation identifies, assesses, and manages climate-related risks.</p> <ul style="list-style-type: none"> IP Group identifies and assesses climate-related risks through its ESG Committee, Ethics Committee and related working groups. In addition, the Ethical Investment Framework ensures that environmental criteria are considered in the investment process and portfolio companies are asked to comply with the Ethical Investment Framework. A key output of the climate risk analysis, in line with TCFD recommendations, is to establish climate as 'strategic risk' for IP Group in line with transitional and physical risk over a time horizon of less than five years. 	<ul style="list-style-type: none"> The analysis provided and the shorter time horizon means that the Group now recognises these near-term risks as operational risks. We have therefore created a climate change operational risk register to capture the analysis and integrate it into our existing risk management framework. This process identified a new strategic-level risk associated with climate change. 	<ul style="list-style-type: none"> As part of the strategic risk assessment, there will be a yearly review of climate risk. Management of reputational risk through position statements on climate-related issues, leveraging support of external stakeholders and NGOs. The energy transition is a core part of IP Group's strategy. Develop mitigation strategies to reduce risk at operational and portfolio level.
		<p>Further information</p> <p>See risk management section in the 2021 IP Group Annual Report</p> <p>See membership of UN Global Compact/UNPRI – reporting to SDGs, endorsing membership of ESG_VC to encourage ESG data measurement in portfolio companies.</p> <p>Carbon Action Plan and engagement with portfolio on carbon reduction.</p>	
Metrics and Targets	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>	<ul style="list-style-type: none"> Greenhouse Gas Reporting. SECR Report (Streamlined Energy and Carbon Reporting). 	<p>Set key risk indicators</p> <ul style="list-style-type: none"> Fines from failure to comply with policy/legal obligations. Engage portfolio companies on carbon emission reduction and mitigation. Percentage of new cleantech investments.
		<p>Further information</p> <p>See details of Cleantech portfolio in the 2021 IP Group Annual Report and on the website for details of Cleantech portfolio.</p> <p>See details of work towards a net zero target in Environment report on page 10.</p>	



Reporting and Transparency

CASE STUDY

Climate-related opportunity:

C-Capture has patented a unique, solvent-based technology which offers a safe, low-cost way to remove carbon dioxide from emissions using a post-combustion capture approach.

High emissions (including Scope 1, 2 and 3) are increasingly associated with a negative brand image and emissions-intensive industries are under increasing pressure to reduce greenhouse gas emissions. The core technologies and products of C-Capture are already aligned to capitalise on the increasing demand for emissions reduction technologies. High-scoring market-related opportunities, as shown in the tables, for this company are associated with increasing partnerships with companies in industries which are typically associated with high carbon dioxide emissions. C-Capture technology can be deployed in most processes requiring CO₂ separation from other gases, including power stations, cement plants, hydrogen production facilities, steel or glass making factories, or natural gas upgrading plants. The company already works with Drax on a pilot project of the first bioenergy carbon capture storage project in Europe.



SASB

Below details IP Group's alignment to the SASB framework. We believe this to be the most relevant ESG framework to investors. While there are omissions in some data areas, the Company improved ESG data collection in 2021 and looks to further continue this through 2022 and beyond.



Topic	Accounting Metric	Code	More Details
ASSET MANAGEMENT & CUSTODY ACTIVITIES			
Transparent Information & Fair Advice for Customers	(1) Number and (2) percentage of covered employees with a record of investment-related investigations, consumer-initiated complaints, private civil litigations, or other regulatory proceedings	FN-AC-270a.1	The topic and associate metrics are omitted on the basis of lack of applicability.
	Total amount of monetary losses as a result of legal proceedings associated with marketing and communication of financial product related information to new and returning customers	FN-AC-270a.2	The topic and associate metrics are omitted on the basis of lack of applicability.
	Description of approach to informing customers about products and services	FN-AC-270a.3	The topic and associate metrics are omitted on the basis of lack of applicability.
Employee Diversity & Inclusion	Percentage of gender and racial/ethnic group representation for (1) executive management, (2) non-executive management, (3) professionals, and (4) all other employees	FN-AC-330a.1	Pg 16 of ESG Report
Incorporation of Environmental, Social, and Governance Factors in Investment Management & Advisory	Amount of assets under management, by asset class, that employ (1) integration of environmental, social, and governance (ESG) issues, (2) sustainability themed investing, and (3) screening	FN-AC-410a.1	As indicated in the answer to FN-AC-410a.2 we have amended our investment process to include an ESG assessment. 1) During 2021 we carried out a data collection exercise to ascertain ESG engagement across our portfolio - approximately 70% by value of our portfolio companies responded in full to this survey. 2) The value of the cleantech portfolio which is aligned to sustainability themed investing is £100.9m.
		FN-AC-410a.2	IP Group recognises the importance of stewardship of our ESG aims such as strong governance and encouraging greater diversity across our portfolio. Following the adoption of the Group Ethical Investment Framework (EIF) and ESG Policy, we have amended our investment processes to ensure ethical and ESG considerations are incorporated. These changes include the addition of excluded sectors into our investment agreements with portfolio companies and documentation of ESG considerations in the investment decision-making process. While many of our portfolio companies focus on positive change in the Life Sciences and Technology sectors, they are growing companies which may need guidance on compliance of all applicable environmental, ethical and social legislation. Our direct involvement in many of these companies allows greater scope to engage with their management teams on these issues.

Topic	Accounting Metric	Code	More Details
	Description of proxy voting and investee engagement policies and procedures	FN-AC-410a.3	<p>IP Group is primarily an investor in private companies, which mainly takes corporate shareholder actions through written resolutions. Our authority as a shareholder in these private companies is mandated by our rights in the shareholders' agreement and we often have an investor director on the board who will hold significant influence and is able to ensure appropriate governance throughout the year. The shareholders' agreement will prescribe certain matters which cannot be taken without either investor director consent and/or shareholder consent of an investor majority.</p> <p>In relation to UK quoted portfolio companies, we have standard authority guidelines that we send to such companies on an annual basis which are in line with the proxy advisory groups' recommendations and we actively encourage such companies to engage with us when they are looking to request extraordinary share authorities at AGMs/GMs before sending the meeting notices out.</p> <p>We also actively encourage our quoted portfolio companies to consult with us prior to putting in place any new, or amending any existing, share option schemes especially where the terms of such schemes could be viewed as off market.</p> <p>We review all proxy forms or AGM notices to ensure they are in line with our guidelines before signing them. If not, then we will raise any issues specifically with either the company secretary or the investment director, as appropriate.</p> <p>We believe that the above policies and procedures are appropriate and proportionate for the size and maturity of our portfolio companies but will keep these under review should the nature of our quoted portfolio change.</p>
Business Ethics	Total amount of monetary losses as a result of legal proceedings associated with fraud, insider trading, anti-trust, anti-competitive behavior, market manipulation, malpractice, or other related financial industry laws or regulations ⁵	FN-AC-510a.1	There have been no monetary losses associated with these criteria.
	Description of whistleblower policies and procedures	FN-AC-510a.2	<p>All staff are responsible for the success of the Speaking Up policy and should ensure that they use it to disclose any suspected wrongdoing or danger. Staff are able to raise any concerns with Managers and can also contact one of the following: the Speaking Up Officer or the General Counsel, Angela Leach. There is also a secure, 24-hour, external speaking up hotline and web reporting system operated by Navex.</p> <p>Policy: https://www.ipgroupplc.com/-/media/Files/I/IP-Group-V2/documents/CSR%20docs/Speaking%20up%20Policy%20-%20Sep%202021.pdf</p>
Systemic Risk Management	Percentage of open-end fund assets under management by category of liquidity classification	FN-AC-550a.1	There have been no monetary losses associated with these criteria.
	Description of approach to incorporation of liquidity risk management programs into portfolio strategy and redemption risk management	FN-AC-550a.2	There have been no monetary losses associated with these criteria.
	Total exposure to securities financing transactions	FN-AC-550a.3	There have been no monetary losses associated with these criteria.
	Net exposure to written credit derivatives	FN-AC-550a.4	There have been no monetary losses associated with these criteria.

Topic	Accounting Metric	Code	More Details
ACTIVITY METRICS			
	(1) Total registered and (2) total unregistered assets under management (AUM)	FN-AC-000.A	£1.7bn
	Total assets under custody and supervision	FN-AC-000.B	n/a
PROFESSIONAL & COMMERCIAL SERVICES			
Data Security	Description of approach to identifying and addressing data security risks	SV-PS-230a.1	IP Group has been awarded Cyber Essentials certification. Management commissions regular external penetration testing on IT infrastructure and has implemented multiple cloud and on-premises technologies to monitor endpoints, network traffic that seek to mitigate the risk of intrusion and data breach. Management carries out diligence to seek to ensure that third-party suppliers are maintaining good standards of security.
	Description of policies and practices relating to collection, usage, and retention of customer information	SV-PS-230a.2	The IP Group GDPR policy can be found here - https://www.ipgroupplc.com/sustainability/governance
	(1) Number of data breaches, (2) percentage involving customers' confidential business information (CBI) or personally identifiable information (PII), (3) number of customers affected	SV-PS-230a.3	There have been no data breaches in relation to this criteria.
Workforce Diversity & Engagement	Percentage of gender and racial/ethnic group representation for (1) executive management and (2) all other employees	SV-PS-330a.1	Page 16 of ESG Report/Page 80 Annual Report.
	(1) Voluntary and (2) involuntary turnover rate for employees	SV-PS-330a.2	5.3% attrition (based on voluntary turnover) Pg 59 - Annual report - https://www.ipgroupplc.com/-/media/Files/I/IP-Group-V2/documents/annual-report-and-accounts-v2.pdf
	Employee engagement as a percentage	SV-PS-330a.3	EnPS score - page 18 of ESG report
Professional Integrity	Description of approach to ensuring professional integrity	SV-PS-510a.1	The Group seeks to conduct all of its operating and business activities in an honest, ethical and socially responsible manner and these values underpin our business model and strategy. We are committed to acting professionally, fairly and with integrity in all of our business dealings and relationships with consideration for the needs of all of our stakeholders, including university partners, investors, suppliers, employees, and the businesses in which the Group has holdings. IP Group endeavours to conduct its business in accordance with established best practice, to be a responsible employer and to adopt values and standards designed to help guide staff in their conduct and business relationships. As a publicly traded entity, IP Group actively seeks to engage and maintain an open dialogue with both institutional and private shareholders through its investor relations programme.
	Total amount of monetary losses as a result of legal proceedings associated with professional integrity	SV-PS-510a.2	There have been no monetary losses associated with these criteria.
	ACTIVITY METRICS		
	Number of employees by: (1) full-time and part-time, (2) temporary, and (3) contract	SV-PS-000.A	93 FTE (Dec 2021)
	Employee hours worked, percentage billable	SV-PS-000.B	The topic and associate metrics are omitted on the basis of lack of applicability.

Appendix 1 - Top 20 Holdings by Value

Name	Description	Sector	IPG Group % stake	FV of Group holding at YE 21 (£m)
Oxford Nanopore Technologies plc	Enabling the analysis of any living thing, by any person, in any environment. Developer of the portable, real time, long-read, low cost MinION nanopore DNA/RNA sequencer	Strategic	10.0%	572.0
Istesso Limited	Reprogramming metabolism to treat autoimmune disease	Life Sciences	56.4%	85.6
Hinge Health, Inc.	The World's First Digital Clinic for Back and Joint Pain	Life Sciences	1.8%	63.5
First Light Fusion Limited	Solving fusion with the simplest possible machine	Cleantech	28.4%	57.3
Featurespace Limited	Leading predictive analytics company	Tech	19.5%	51.6
Ultraleap Holdings Limited	Contactless haptic technology "feeling without touching"	Tech	15.5%	35.5
Diurnal Group plc	Novel products for the treatment of rare endocrine disorders	Life Sciences	29.5%	27.4
Garrison Technology Limited	Anti-malware solutions for enterprise cyber defences	Tech	23.4%	25.7
Salt Pay Co. Limited	Mobile payments with integrated loyalty schemes	Tech	0.4%	24.6
Oxford Science Enterprises plc	Contractually preferred partner of the University of Oxford to develop spin-out companies based on research from the Mathematical, Physical & Life Sciences and Medical Sciences Divisions	Strategic	2.3%	23.3
Ieso Digital Health Limited	Digital therapeutics for psychiatry	Life Sciences	32.2%	21.8
Centessa Pharmaceuticals plc	Centessa companies are advancing a portfolio of high conviction programs with strong biological validation	Life Sciences	2.8%	21.1
Crescendo Biologics Limited	Biologic therapeutics eliciting the immune system against solid tumours	Life Sciences	17.5%	18.7
Artios Pharma Limited	Novel oncology therapies that leverage the changes in the DNA Damage Response (DDR) in cancer cells	Life Sciences	7.6%	17.8
Oxbotica Limited	Software to enable every vehicle to become autonomous	Cleantech	14.3%	16.3
PsiOxus Therapeutics Limited	Gene and viral therapies for cancer	Life Sciences	25.3%	15.4
Mission Therapeutics Limited	Targeting deubiquitylating enzymes for the treatment of CNS and mitochondrial disorders	Life Sciences	19.0%	15.4
Oxular Limited	Treatments and delivery technology for sight-threatening diseases	Life Sciences	27.2%	14.6
Nexeon Limited	Silicon anodes for next generation lithium-ion batteries	Tech	10.7%	11.3
Pulmocide Limited	Novel inhaled treatment for life-threatening fungal lung infections	Life Sciences	14.1%	10.6
Total				1,129.5

Appendix 2 - New Investments

HYSATA

Background

Hysata is a company spun out of the University of Wollongong ("UOW") in Australia. Its new hydrogen electrolyser has the potential to significantly shift the economics of green hydrogen production.

The leading Australian technology has been developed by a team from the UOW headquartered 'ARC Centre of Excellence for Electromaterials Science ("ACES"), led by chemical catalysis and characterisation expert Professor Gerry Swiegers.

The Hysata technology has been proven at lab-scale and the company, which has strong scientific, engineering and commercialisation experience, is now focused on developing and commercialising a full-scale system with A\$5m in funding led by IP Group with support from the Clean Energy Finance Corporation ("CEFC"). A second tranche of funding was worth A\$2.5m.

Link to Business Model

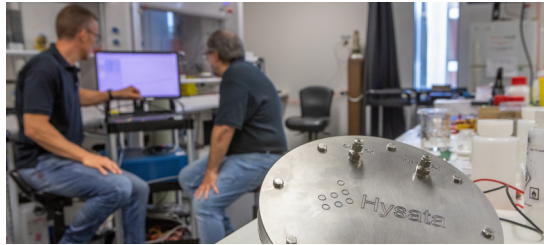
Electrolysers, which use electricity to split water into hydrogen and oxygen, are the key technology for producing green hydrogen. Green hydrogen is widely acknowledged to be a crucial part of reaching net zero emissions globally, with the potential to meet up to 20% of energy demand in a net zero global economy. Part of IP Group's approach is to consider which technologies are best equipped to help us achieve net zero – for example, ammonia as critical to the marine and aviation sectors which are 'hard to abate' sectors – then provide long-term financial and practical support to help them succeed. If this technology can be successfully commercialised it will help us in one of our key aims by helping to build a sustainable future.

Link to SDGs:



Professor Swiegers, Chief Technology Officer

"Inexpensive green hydrogen is needed for decarbonisation of multiple industries to put us on a path to net zero by 2050. Years of work from a great team at the University of Wollongong, along with great facilities and government funding are coming to fruition in a company that has the potential to have global impact. It's great to be working with IP Group – they have global reach and deep experience commercialising university research."



GripAble

Background

GripAble is a company founded by Dr Paul Rinne, a PhD neuroscientist at Imperial University. Paul was working closely with therapy teams on stroke wards and recognised that traditional therapy equipment couldn't provide real-time motivation, feedback or data for tracking progress. This is when the idea for the GripAble device was born. A smart mobile assessment and training device, to help people with upper limb movement impairment to improve movement and grip strength and with the aim of improving therapist management and ultimately patient outcomes. GripAble has since been tested and developed with thousands of occupational and physical therapists and patients across multiple clinical conditions and leading academic institutions including Imperial College London and within Imperial Healthcare NHS Trust.

Link to Business Model

In helping to build a healthier future and ensuring good health for all people is part of the company's philosophy, providing patients better access to therapy in both clinical and home settings with the potential to significantly improve patient outcomes in large patient populations and helping to build a healthier future.

Link to SDGs:



Dr Paul Rinne, Chief Executive Officer

"GripAble is a digital, data-led solution which can help make rehab efficient, effective, scalable, and available to all."



Appendix 2 - New Investments

OxCCU

Background

OxCCU has a novel, robust, iron-based catalyst and process to convert CO₂ and green H₂ from renewable energy into fuels and chemicals in one step. These e-fuels and e-chemicals will be required to displace fossil oil and gas in use today, particularly in the long-distance transport sector such as air travel.

The process has a very low energy input and high selectivity and can be adapted to produce either jet fuel range hydrocarbons or valuable sustainable chemicals such as alpha olefins, to be used for surfactants, synthetic lubricants, plasticisers, amongst other chemicals.

OxCCU is currently scaling up catalyst production and developing its own modular, industrial reactor suitable for any emission sources.

The company was spun out from the University of Oxford's Chemistry Department in 2021 and is underpinned by several scientific breakthroughs published in top tier scientific journals by Professor Peter Edwards (founder and board director), Dr Tiancun Xiao (founder, Managing Director, and Chief Technology Officer) and Dr Benzhen Yao (founder and chief engineer).

Link to Business Model

To limit the impact of greenhouse gas emission from fossil fuels, primary energy must come from zero emissions sources in just 30 years.

While the shift in the power sector is already underway, with renewable electricity replacing fossil power plants, not all sectors can use electricity directly for example, long-distance transport fuels where energy density requirements are far beyond batteries. In addition, the chemicals industry urgently needs to decarbonise, and this means numerous petrochemical products will need to be produced from CO₂ rather than fossil fuels.

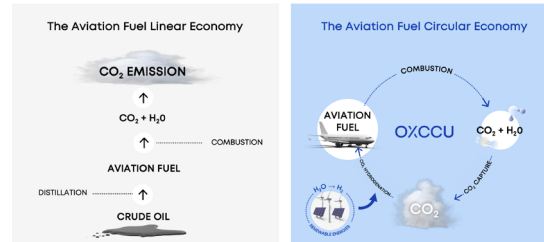
In helping to build a sustainable future, part of IP Group's mission is to identify the technologies which plug gaps in the transition to net zero and build them into scalable businesses. Delivering the circular economy for fuels and chemicals is a key gap and one for which there is a growing market need.

Link to SDGs:



Dr Tiancun Xiao, Founder, Managing Director & Chief Technology Officer

"Every year the demand for truly sustainable fuels and chemicals grows. At OxCCU we're attracting the world's leading chemists and chemical engineers to help bring our net zero products to the world."



OxONN

Background

OxONN (Oxford Optical Neural Networks) is a spin-out from the laboratory of Professor Lvovsky, a renowned and award-winning experimental physicist based at the University of Oxford. His research group has developed a means to optically train an artificial neural network ("ANN") and OxONN has been set-up to commercialise this work. IP Group has committed £1.25m of capital as part of a £1.75m round.

ANNs, like biological brains, are decentralised and inherently parallel, offering immense computing power across a huge range of applications. They can be implemented in digital computers where they are simulated using software, but a smarter approach is to leverage the coherence and superposition properties of linear optics, which will allow ANNs to be implemented directly in hardware, with data encoded in pulses of light and neurons made from beam splitters, waveguides and other components. Optics is therefore a very attractive platform for realising the next generation of neural networks and is the focus for OxONN.

Link to Business Model

As part of our approach to supporting a tech-enabled future, we aim to support technologies like machine learning ("ML") implemented through artificial intelligence, which has made huge strides in recent years. Whether in recognising faces in photos, monitoring credit-card transactions for fraud, recommending music based on personal taste, powering a driverless car or identifying tumours in medical images. These advances and many others have come about largely thanks to progress in neural-network computing and "deep learning". In a similar way to how the human brain works, these networks tune the connections between large numbers of artificial neurons to spot patterns in data sets.

Link to SDGs:



Lee Thornton, Investment Director, DeepTech

"Oxford University has been an excellent source of deal flow for IP Group for a number of years and the addition of OxONN to our portfolio continues this trend. Machine learning and neural networks offer huge promise as the next generation of computing architecture and the technology being commercialised by OxONN is genuinely ground-breaking, promising an optical approach to training, which has the ability to deliver a thousand-fold benefit to performance and energy efficiency. We look forward to being part of the company's exciting journey."



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