

# Innovation Industries



RESPONSIBLE INVESTMENT REPORT

2022

# Contents

<b>Message from the general partners</b>	<b>3</b>
<b>Introduction</b>	<b>4</b>
2022 at a glance	
About this report	
<b>Purpose and ambition</b>	<b>6</b>
Responsible investment strategy	
A purpose-driven approach to responsible investment	
Impact and ESG in our investment processes	
<b>Fund manager</b>	<b>8</b>
Diversity & inclusion	
ESG performance indicators	
<b>Our funds</b>	<b>9</b>
Investing in the high tech innovation ecosystem	
Investment themes	
Investments by sector, stage and investment theme	
Additional investments via the Smart Industries Fund and Medtech TTT	
Investments in 2022	
<b>Our portfolio: monitoring and continuous improvement</b>	<b>16</b>
Assessment of ESG management capacity	
ESG Narrative	
<b>Appendix I: Governance approach</b>	<b>41</b>
Internal governance structure	
Compliance policies & procedures	
Governance principles for portfolio companies	
Investor stewardship	
<b>Appendix II: The UN SDGs</b>	<b>43</b>

# Message from the general partners

Presented here is Innovation Industries' Responsible Investment report for the year 2022. The previous year proved to be another eventful and dynamic period for us. Alongside the management of our existing portfolio, we successfully incorporated two new companies, made significant progress in finalizing our third fund, and refined our impact framework to align with the sustainable investment objective of this fund. These achievements occurred amidst a backdrop of geopolitical instability and regulatory uncertainty, where the implications of new disclosure regulations remained somewhat ambiguous. Moreover, 2022 saw a renewed and heightened sense of urgency among society regarding critical global sustainability challenges. Climate change, biodiversity loss, and the deterioration of public health continued to capture increased attention and concern worldwide.

The combined risks and opportunities brought by the abovementioned developments further reinforce our investment belief that the most valuable<sup>1</sup> companies of our time

will be those that are purposefully contributing to a solution to fundamental challenges. This belief translates into our objective to invest in companies that use 'deep tech' to advance sustainable solutions within the scope of five investment themes that address a range of social or environmental issues and/or capitalize on important societal megatrends.

To demonstrate the progression of our responsible investing strategy, we have proactively integrated essential components of our impact framework into this report. By doing so, we aim to showcase how we evaluate the potential impact of emerging technologies. Using two investment cases (our investments in 2022), we also portray the difference between the approach we applied to investments from our current fund (Innovation Industries Fund II) and our new approach, to be applied to investments from our new fund (Innovation Industries Fund III). The latter provides the basis for future disclosures on the realization of our sustainable investment objective. As we closed

Fund III in 2023, our next report will provide insight into our full approach to measuring, monitoring and reporting on impact.

We fully acknowledge the significance of transparency in achieving sustainable change. Therefore, transparency stands as a fundamental objective of this report and drives our commitment to continually enhance our methods of measuring and monitoring performance. By actively monitoring our performance, we strive for constant improvement and invite you, as our valued reader and stakeholder, to engage in an open dialogue with us.

Through this ongoing dialogue, we can collectively shape our perspective on responsible investing, expand our knowledge, and gain valuable experience. We firmly believe that all stakeholders should be active participants on this journey, enabling us to navigate the path towards responsible investing together.



Chris Sonnenberg



Harm de Vries



Nard Sintenie



Sander Verbrugge



Caaj Greebe

<sup>1</sup> with sustainable value being a mix of economic, social and environmental value

# Introduction

## 2022 at a glance

Innovation Industries is a Dutch venture capital investment firm investing in early- and growth-stage companies, with a focus on the high tech, agri-food tech and med tech sector. In shaping our investment strategy, over the years, we have built on our belief that creating sustainable value requires responsible investing.

The year 2022 offered yet again a dynamic operating environment for Innovation Industries and its portfolio companies. The geopolitical situation and lingering effects of the COVID-19 crisis impacted supply chains and increased the risk of disruptions. More broadly speaking, corporations were, and still are facing a fast and continuously changing playing field, which is affecting our portfolio companies, even if only through long-term prospects or indirectly in their role as supplier. The European

Union is translating its sustainability-related ambitions in regulation on topics like non-financial disclosures<sup>2</sup> and supply chain due diligence<sup>3</sup>. Local governments are moving along with this development, like the Dutch government who introduced an obligation for companies to report the CO2 emissions caused by business and commute travel<sup>4</sup>.

An important part of our work was aimed at compliance with the EU Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy Regulation<sup>5</sup>. Innovation Industries Funds I and II qualify as Article 8 financial products; hence we faced the applicable disclosure requirements. At the same time, our ambition to, going forward, invest with a sustainable objective and to align herein with the requirements set for Article 9 financial products, have overall raised the bar. Over 2023, we will continue to follow developments

closely, as regards the precise requirements for Article 9 products and interpretation of the regulation by the regulatory authorities (primarily, the 'Autoriteit Financiële Markten', in the Netherlands).

This report reveals the developments we have gone through as fund manager over the past year, in further aligning our impact framework with our responsible investment strategy as made public in 2022<sup>7</sup> and with regulatory requirements. We fine-tuned our overall approach, which is now ready to be fully integrated into our investment process for Innovation Industries Fund III. Certain elements of our impact framework are applied in this report to draft case-based impact profiles (See section 'Our funds'). In parallel, we are continuously working to improve the integration of Environmental, Social and Governance (ESG) factors in our investment process.

100%

Of diligenced investments screened for ESG and Impact

92%

Of portfolio reported on ESG metrics

2

New investments

78

Net new hires throughout portfolio

20

ESG engagement meetings with companies

<sup>2</sup> Corporate Sustainability Reporting Directive (CSRD) and Sustainable Finance Disclosure Regulation (SFDR)

<sup>3</sup> Corporate Sustainability Due Diligence Directive (CSDD)

<sup>4</sup> see <https://www.rijksoverheid.nl/actueel/nieuws/2022/04/19/grote-werkgevers-op-weg-naar-schonere-kilometers>

<sup>5</sup> Regulation (EU) 2019/2088 and Regulation (EU) 2020/852

<sup>6</sup> Regulation (EU) 2022/1288

<sup>7</sup> See Innovation Industries Responsible Investment report 2021

# About this report

This is Innovation Industries’ Responsible Investment report 2022. Overall, the report covers three dimensions of responsible investing, as portrayed in figure 1.

This year, the section ‘Our funds’, encompasses a preliminary impact profile for investments during the reporting period, including a check on sustainability risks and potential adverse impacts.

## REPORTING ON PORTFOLIO PERFORMANCE

In reporting the ESG performance of our portfolio, for the first time we provide comparison with the previous period (i.e. our baseline assessment). The performance data shared in this report reflect the status within our portfolio as well as the effectiveness of our role as active shareholder in addressing ESG and impact. This is an important part of the positive ecosystem impact we seek through our funds.

We have carefully chosen the issues and indicators we report on (see textbox). An important part of our report remains narrative / case based.

Figure 1. Dimensions of responsible investing and associated report content

FUND MANAGER	OUR FUNDS	OUR PORTFOLIO
<p><b>Our operations as fund manager:</b></p> <p>We have made our core values explicit and are embedding impact and ESG in our governance structure, culture and procedures.</p>	<p><b>Investment selection and decision-making:</b></p> <p>We fund and guide deep-tech companies to help them develop and scale technologies with positive impact potential.</p>	<p><b>Our role as active shareholder:</b></p> <p>We communicate and leverage our Impact &amp; ESG frameworks to guide the companies in our portfolio. We actively share knowledge and experience to help companies realize their full potential.</p>
<p><b>Disclosed in this report:</b></p> <ul style="list-style-type: none"><li>Quantitative data report, with data, amongst others, on the size and composition of our team</li></ul>	<p><b>Disclosed in this report:</b></p> <ul style="list-style-type: none"><li>Quantitative data report, with data providing insight into the magnitude of direct impact through our investments (aggregate fund level)</li><li>Breakdown of investments per stage, sector and investment theme</li><li>Impact profile of investments during the reporting period</li></ul>	<p><b>Disclosed in this report:</b></p> <ul style="list-style-type: none"><li>Assessment of ESG management capacity across portfolio</li><li>ESG issue-based narrative report</li></ul>

### Measuring & reporting: Key considerations

We invest in start-up and scale-up companies with a focus on emerging technologies in a range of sectors. This introduces a number of considerations for measuring and reporting on ESG and impact:

- Particular issues that are deemed relevant for the sector may not (yet) be relevant for certain companies

- Not all issues we consider material to our portfolio are in fact material to all companies
- Predicting the long-term impact of technology can be difficult. We do not always know which application(s) will gain traction and be successful. Also, realizable impact might depend on the use case for

and considerations made by (future) clients

- Impact potential will not always be realized during our investment period. Where it is, its magnitude will often still be limited

# Purpose and ambition

## Responsible investment strategy

Through Innovation Industries' funds, we invest in technological ventures. In selecting our investments, we focus on deep tech start-ups and scale-ups that align with relevant societal trends and address global sustainability challenges. We support local ecosystems, directly by providing financing, but also over time, as we support knowledge creation and innovation and help build sustainable and resilient companies.

Our responsible investment strategy is centred around two elements:

- A sustainable investment objective, as set out in article 9 of the Sustainable Finance Disclosure Regulation (SFDR), also referred to as our *impact objective*<sup>8,9</sup>
- The management of sustainability risks & opportunities and adverse impacts<sup>10</sup>, also referred to as *ESG integration*.

## A purpose-driven approach to responsible investment

Innovation Industries' purpose is to optimize value creation and drive sustainable change on a societal level. Our approach to responsible investment is largely driven by this purpose and shaped through our actions in three dimensions: our own values, standards and internal operations; the investments we make through our funds, and; our approach to portfolio management. Hence, we formulated our purpose statement and ambitions along these dimensions, to improve accountability and induce dialogue on specific contributions.

Figure 2. Innovation Industries' breakdown of purpose across three dimensions

### FUND MANAGER

Sustainability in our operations as fund manager



#### Business ethics & governance

We operate on the basis of a set of core values and our Governance approach (see appendix I)



#### Diversity & inclusion

We aim to increase diversity across the organization. We empower individuals to succeed by fostering an environment that values differences



#### Standards & transparency

We align our practices with established standards such as the principles of the UN Global Compact and the OECD Due Diligence Guidance for RBC

### OUR FUNDS

Sustainability in investment selection and decision-making



#### Financing sustainable innovation

We provide financing to start-ups and scale-ups to help scale technologies



#### Impact mindset

We invest in companies that (seek to) address key social and environmental issues through technology; a commitment specified through our investment themes



#### ESG integration

We assess and consider ESG-related risks and opportunities during origination, due diligence and decision-making



#### Long-term commitment

Our long-term investment horizon allows us to invest in emerging and promising technologies that require longstanding commitment

### OUR PORTFOLIO

Sustainability in our role as active shareholder



#### Active ownership

We engage with and support companies in their development of an approach to ESG and impact management capacity



#### ESG & Impact guidance

We have a specialist in our team, dedicated to ESG & Impact, who promotes awareness and follows up on our responsible investment policy



#### Continuous improvement

We regularly measure, monitor and discuss ESG performance across our portfolio, to support and induce continuous improvement

<sup>8</sup> In line with the definition used by the Global Impact Investing Network (GIIN): "investing with the intention to generate positive, measurable social or environmental impact alongside a financial return"

<sup>9</sup> Officially applied per the closing of Innovation Industries Fund III. Concept applied informally during reporting period to investments from Innovation Industries Fund II with focus on sustainability narrative and alignment with SDGs and investment themes

<sup>10</sup> As set out in Regulation (EU) 2019/2088 (SFDR), articles 3-6

## Impact and ESG in our investment processes

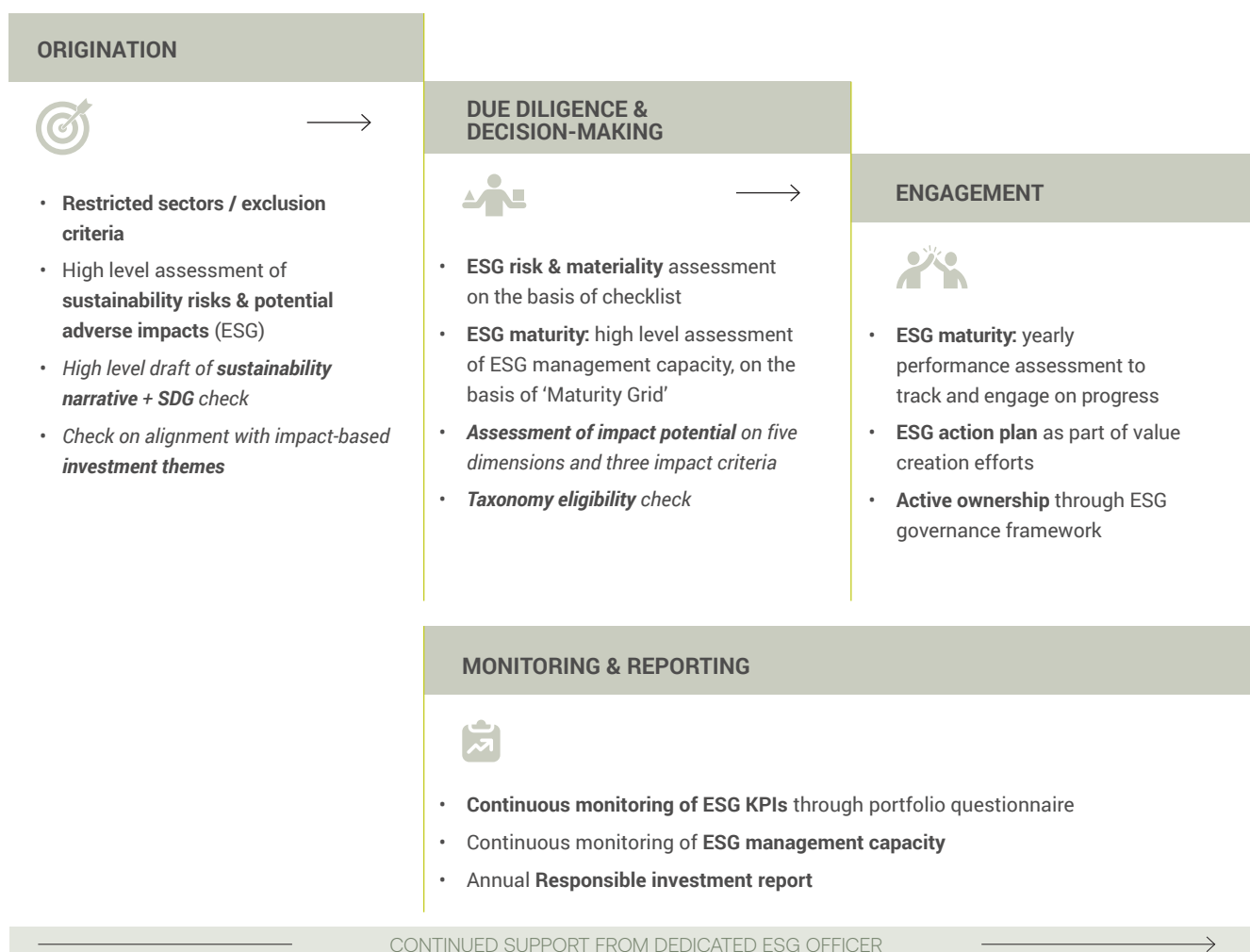
The basis for a successful and consistent approach to ESG and impact is their integration into the investment process. Figure 3 captures our current approach, containing the key elements of our ESG management system. As part of our impact approach, we have added a number of steps, signifying *phase 1* (pilot implementation).

Most features of our approach were specifically designed to be applied to the investment process for Innovation Industries Fund III (*phase 2*, full implementation). In figure 3, we portray in italics those that have already been applied to our investments in 2022, as part of *phase 1*<sup>11</sup> (see section 'Our funds'). In phase 2, our approach will cover all stages of the investment process; the remaining features will be shared in our 2023 report.

To support the team in executing the aforementioned steps and in preparation of *phase 2*, we developed a set of frameworks and tools. Amongst them is a flowchart for assessment of potential investments, depicting, step-by-step, the required checks and validations based on pre-set impact criteria. It ensures alignment with our sustainable investment objective and related regulatory requirements.

We allow room for our approach to evolve over time, as we develop better insight into our own priorities, as the portfolio composition changes, and as the ecosystem moves to a clear and common understanding of regulatory requirements. Similarly, over 2023, while we put to work the different features of our approach, we aspire to fine-tune them based on our experience.

Figure 3. Impact & ESG in our internal processes



<sup>11</sup> To some extent retrospectively

# Fund manager

As fund manager, we take our responsibility towards key stakeholders seriously. The implications of our fiduciary duty have since long been covered through our Governance approach (see Appendix I). In line with this duty as well as our duty towards portfolio companies and employees, we support and apply the basic principles for governance on which global and industry-based standards, like the OECD Principles of Corporate Governance and the NVP code of conduct, are based. Amongst them are *integrity* and *transparency*.

We continuously build on this approach to have it optimally support our responsible investment strategy and, by extension, strengthen our purpose-driven organization.

## Diversity & inclusion

This year, it became progressively clear to us that, were we to structure internal processes and behaviours in line with our core values and in furtherance of our purpose, we needed to put in writing our commitment to diversity and inclusion. Hence, through a Diversity & Inclusion statement, we made public our commitment to drive and demonstrate inclusive leadership and culture within our organization as well as throughout our portfolio.

## ESG performance indicators

We report here on the performance of our internal organization. Through a set of ESG performance indicators we quantify outcomes relating to several issues.

Table 1. ESG performance indicators, Innovation Industries' internal operations

	Carbon footprint													Human capital			Diversity		Health & safety		
	Estimated scope 1 emissions <sup>1</sup> (tCO2e)	Estimated scope 2 emissions <sup>1</sup> (tCO2e)	Estimated scope 3 emissions <sup>1</sup> (tCO2e)	Electricity use (MWh)	Gas use ('000 m3)	Heat delivered (GJ)	Office floor area (M <sup>2</sup> )	Clean room floor area (M <sup>2</sup> )	Lab space floor area (M <sup>2</sup> )	Short flight travel (<700 km; '000 km)	Medium flight travel (700-2500 km; '000 km)	Long flight travel (>2500 km; '000 km)	Distance travelled by car ('000 km)	FTE (per 31/12/22)	Net new hires	Annual percent turnover <sup>2</sup>	Management team gender diversity (% female)	Organisation gender diversity (% female)	Number of accidents on site	Number of work-related injuries	Number of cases of work-related ill health
IIF internal	6	33	28	73	3	n/a	658	n/a	0	1.3	0	0	197	14.1	2.3	9%	0%	25%	0	0	0

<sup>1</sup>Based on GHG emission factors per unit of gas, electricity, heat delivered and passenger kilometer (car travel, fuel type unknown, and air travel, in three distance classes); emission factors sourced from CO<sub>2</sub>emissiefactoren.nl

<sup>2</sup>Based on FTE data, excluding turnover of employees during their probationary period



# Our funds

## Investing in the high tech innovation ecosystem

Through our funds, we support scientific research and innovation, contributing to the strength of the high tech innovation ecosystem. Our investment strategy reinforces the additionality of our investments:

- We finance the start-up or scale-up of companies that are limited in their financing options due to their risk profile.
- We are involved from an early-stage, which allows us to create sustainable value by managing ESG factors early-on, mitigating risks as they arise and addressing negative impacts even before they occur. This is supported by our active ownership approach.
- We assess and monitor the impact potential of our portfolio, so as to support the selection and development of companies with business models characterized by their potential to create both economic and societal value<sup>12</sup>.

Table 2. Investments per 31 December 2022

	Innovation Industries Fund I <sup>1</sup>	Innovation Industries Fund II	Total
<b>Number of companies invested in</b>	12	16 <sup>2</sup>	25 <sup>3</sup>

<sup>1</sup> Excluding exits

<sup>2</sup> Including companies invested in via the Early Stars Fund (3)

<sup>3</sup> Aggregate number differs from the added numbers for Fund I and II due to overlap between funds

<sup>12</sup> With this commitment captured in a sustainable investment objective for Innovation Industries Fund III

## Investment themes

Broadly speaking, how we allocate our funds determines what existing systems, ongoing developments or long-term trends we support. Also, in building our portfolio of investments, we decide which economic, social and / or environmental objectives are most worthy of pursuit through our funds. Conscious of this fact, in 2021, we identified five impact-based investment themes, in doing so making more explicit our objective to invest sustainably. Each of these themes relates to at least one Sustainable Development Goal (SDG, see appendix II).




### Resource efficiency & circularity




12

14

Issues & trends	Examples of sustainable solutions	Description
 Transition to a circular economy	Precision engineering 3D printing	Global consumption of materials such as fossil fuels, metals and minerals is projected to more than double by 2060. However, natural resources are depleting fast and the environmental impact of extraction, processing, consumption and disposal drives critical problems such as climate change, biodiversity loss and water stress <sup>13</sup> . Through our investments, we aspire to enable delivery of greater value with less input. Moreover, we believe in technologies that enable reduction of the lifecycle impact of materials and substances by considering properties such as scarcity, hazardousness and recyclability.
 Material efficiency of industrial processes	Advanced material design Fluid dynamics	
 Ecodesign & innovation	Nanolayer coatings Biodegradables	






### Energy transition & carbon reduction



7

12

13

Issues & trends	Examples of sustainable solutions	Description
 Energy efficiency of industrial processes	Renewable energy sources (e.g. green hydrogen)	One of the greatest challenges facing humanity today is global warming. To avoid its worst effects, as stated by the IPCC, we need to limit temperature rise to 1.5 °C above pre-industrial levels, which involves the following targets: <ul style="list-style-type: none"> <li>• a 45 percent decline in greenhouse gas emissions, by 2030</li> <li>• net zero emissions, by 2050</li> <li>• removal of an estimated 100-1000Gt CO2 from the atmosphere, over this century<sup>14</sup></li> </ul> Attaining these targets will require unprecedented system transitions, in energy, (transportation) infrastructure and industrial systems. We seek to support technologies that can play a crucial role in this transition.
 Transition to renewables & energy storage	Solid-state batteries Carbon-negative technology	
 Greenhouse gas capture & storage	Charging technology	

<sup>13</sup> International Resource Panel (2019). Global Resources Outlook.

<sup>14</sup> United Nations' Intergovernmental Panel on Climate Change (IPCC) special report (2021)






## Sustainable connectivity & infrastructure

SUSTAINABLE DEVELOPMENT GOALS

9

11




Issues & trends	Examples of sustainable solutions	Description
 Exponential growth of data & computation demand	Integrated photonics & semiconductors	Data, computation and connectivity are essential to modern society. Moreover, technology can enable innovation in support of sustainability objectives. For instance by transforming cities and infrastructure to increase inclusiveness, accessibility and safety <sup>15</sup> . Ultimately, it has the potential to advance other objectives, for example related to food systems and industrial production processes <sup>16</sup> . The exponential growth of data traffic and computation requires a critical focus on energy efficiency though. Through our investments, we aspire to help develop and scale innovations that can leverage a range of opportunities whilst reducing the system's energy intensity.
 Energy intensity of computing and data traffic	Internet of Things (IoT) & edge computing	
 Growing connectivity of people and things	Quantum compute & internet Artificial Intelligence & machine learning	



## Health & wellbeing

SUSTAINABLE DEVELOPMENT GOALS

3

Issues & trends	Examples of sustainable solutions	Description
 Quality & affordable healthcare	Sensors for remote diagnostics & monitoring	The healthcare system is facing many challenges, including the increasing prevalence of chronic diseases (asthma, diabetes) and conditions (obesity, nearsightedness), and seems unfit to meet them. Several circumstances are at play here: <ul style="list-style-type: none"> <li>• an aging population</li> <li>• a relatively unhealthy environment (consider the impact of pollution)</li> <li>• the broad adoption of unhealthy lifestyles and diets</li> <li>• a shortage of health workers</li> </ul> We support innovations that allow healthcare providers to operate more efficiently while maintaining or even increasing quality. However, we deem prevention crucial to improve health and wellbeing, for example by enhancing the quality of diets or reducing risks of injuries.
 Prevention & health promotion	Medical robotic systems Brain-computer interface technologies	
 Responsible digitalization & automation	Lab automation equipment Organ-on-a-chip systems	



## Sustainable & healthy food

SUSTAINABLE DEVELOPMENT GOALS

2

12

Issues & trends	Examples of sustainable solutions	Description
 Sustainability of food systems	Breeding technologies Agricultural biologicals	Global trends like population growth, soil degradation and climate change (and its complex consequences for agriculture) are putting our food system under pressure. Also, the agricultural sector is a large contributor to environmental issues such as water depletion, air and soil pollution, biodiversity loss and climate change <sup>17</sup> . Disruptive change is needed to make our food production system sustainable and suited to ensure long-term supply of high-quality and nutrient-dense food. We seek investments in innovative solutions that carry the promise of furthering this objective, possibly even enabling much-needed systemic change.
 Climate resiliency of food systems	Smart farming & precision agriculture Synthetic biology & precision fermentation technologies	
 Food nutritional value & quality	Plant-based alternatives	

<sup>15</sup> See SDG 11 (mainly targets 11.2, 11.6, 11.7)

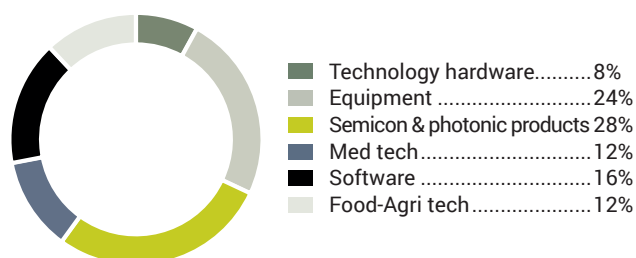
<sup>16</sup> See SDGs 2 (mainly target 2.4) and 12 (mainly target 12.2). The sustainability objectives are captured under the themes 'Sustainable & healthy food' and 'Resource efficiency & circularity'

<sup>17</sup> 27% of global greenhouse gas emissions is linked to agriculture, forestry and land use (McKinsey (April 2020). Agriculture and climate change)

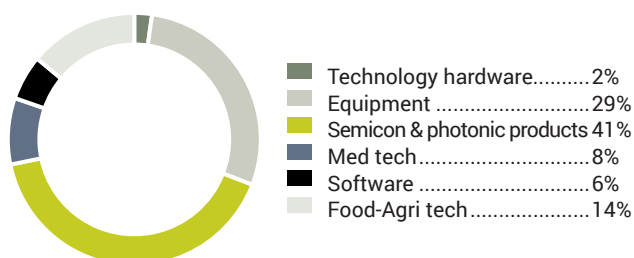
## Investments by sector, stage and investment theme

We portray here a breakdown of our investment portfolio by sector, stage and theme. The stages are extracted from our Technology Startup Maturity Grid, wherein we set out a company's evolution from seed to maturity.

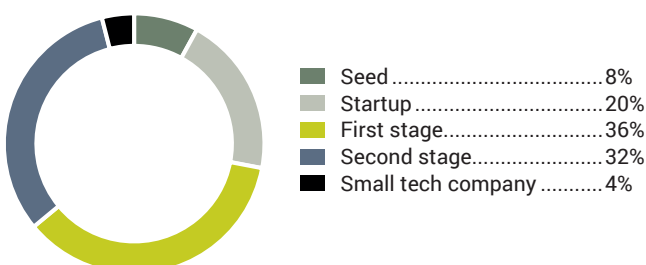
Companies by sector



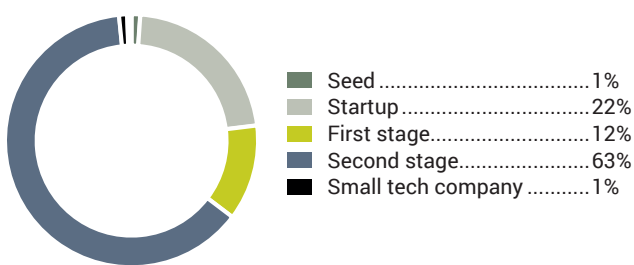
AUM by sector



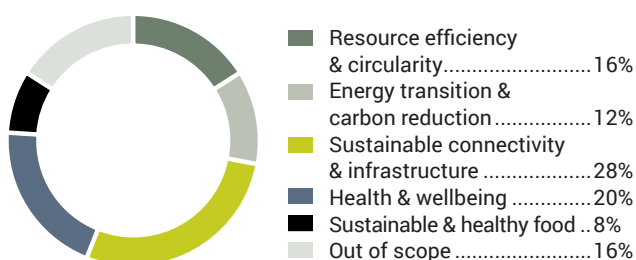
Companies by stage



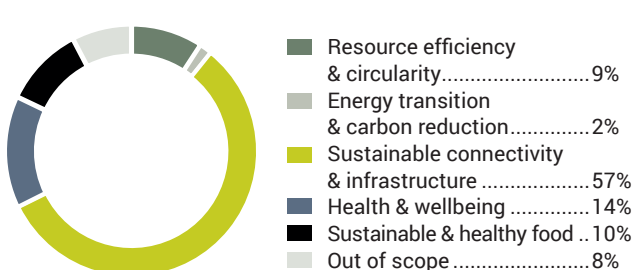
AUM by stage



Companies by investment theme



AUM by investment theme



## Additional investments via the Smart Industries Fund and Medtech TTT

Innovation Industries is part of Thematic Technology Transfer (TTT), an alliance with TNO and 4TU (Delft University of Technology, Eindhoven University of Technology, University of Twente and Wageningen University & Research). The goal of this government (co-)funded program is twofold, namely, a) to stimulate and expedite the practical application of promising research and b) to strengthen the connection and increase cooperation between the institutions involved. The program offers subsidies to the knowledge institutes for support to researchers aspiring to start a spin-off company. Also, it co-finance theme-based funds for recently founded spin-offs. The two funds managed by Innovation Industries are centred around Smart Industry and MedTech.

The investments through these funds offer an opportunity for us to get to know, and possibly provide follow-on funding to companies with positive impact potential, thus enhancing our impact<sup>18</sup>.

Table 3. Investments via SIF and Medtech TTT

	Smart Industries Fund	Medtech TTT Fund	Total
<b>Companies invested in (total)</b>	14	3	17
<b>Companies invested in (2022)</b>	2	2	4
<b>Companies to receive follow-on funding from IIF (2022)</b>	1	0	1

## Investments in 2022

In 2021, to support realization of our sustainable investment objective, we developed a preliminary framework for assessing, monitoring and reporting on impact. Since that time, we have evaluated prospective portfolio companies' potential to bring positive change, still informally but purposefully. Over 2022, we have developed this framework further, as part of our broader impact approach.

In 2022, we invested in two companies<sup>19</sup>. We applied several elements of the framework to these investments, as a way to test it within the team (*phase 1*: pilot implementation) and for illustrative purposes<sup>20</sup>:

### Pharrowtech

Focus on key features of ESG management system, complemented by the origination-stage elements of impact framework (i.e. high level evaluation) (*see figure 4a*)

### Carbyon

More detailed assessment, including the due diligence-stage elements of impact framework, including an assessment of impact potential on five dimensions of impact: what, who, how much, additionality and moderators<sup>21</sup> (*see figure 4b*)

<sup>18</sup> The investments are not part of this report, because of the separate status of the fund and small ticket sizes

<sup>19</sup> Investments done from Innovation Industries Fund II

<sup>20</sup> Certain elements were applied retrospectively, i.e. post-closing

<sup>21</sup> based on the dimensions as defined by the Impact Management Project

Figure 4a.






















 <b>BUSINESS</b> Development of radio frequency (RF) transceiver chip for wireless connectivity		<b>SECTOR</b> Semiconductor & photonic products	<b>INDUSTRY (SASB)</b> Semiconductors
SUSTAINABLE OBJECTIVE	INVESTMENT THEME  Sustainable connectivity & infrastructure	RELEVANT SDG'S  Industry, innovation & infrastructure	 Affordable & clean energy
TECHNOLOGY / PRODUCT SUSTAINABILITY NARRATIVE	KEY SUSTAINABILITY RELATED METRICS  <div>  <b>INCREASED PENETRATION RATE</b>  <b>ENERGY EFFICIENCY</b> </div>		
EXPLANATION	<p>With its technology, Pharrowtech addresses (amongst others) the market of Fixed Wireless Access (FWA). Serving as last mile access to people's home, the technology can enable sustainable connection of people and items with high-speed internet, thereby laying an important foundation for societal infrastructure. Through the technology, it will be possible to connect regions and areas that have until now been unconnected due to infrastructure constraints (e.g. the cost of installing fiber optic cables).</p> <p>In 2020, in the developed world, 75% of data traffic went through wired (fixed location) connections. The penetration rate of wired solutions (e.g. copper cable) is 90%. However, for optical fiber (technology of choice for high-speed internet to the home) current availability is only ~40%. The expectation is for fiber-based solutions to reach a penetration rate of 75-90%. Pharrowtech's technology can enable connection of the remaining households. In less developed countries, fixed access networks are vulnerable; hence, wireless connection is already commonly used for the last mile.</p>		<p>Crucially, the technology allows for lower energy usage per transferred bit compared to conventional wireless solutions due to a significant increase in bandwidth. The technology uses about 40% of the energy required with existing technologies, thus significantly lowering carbon footprint. Based on the assumptions that: a) the need for connectivity will continue to grow exponentially, and b) wired connections will only address part of this need (in developed and developing countries), the energy-saving potential could be significant.</p> <p>It must be noted that there could be an adverse effect, where the technology contributes to more wireless data traffic, hence, higher energy usage.</p>
SUSTAINABILITY RISKS & ADVERSE IMPACTS	<b>ESG RISK &amp; MATERIALITY</b> Assessment performed 	<b>ESG MATURITY</b> High-level assessment performed 	<b>RESPONSIBLE OPERATIONS</b> Key ESG-related factors are manageable and company makes a clear commitment to do so 

Figure 4b.

		<b>BUSINESS</b> Development of Direct air capture (DAC) machines			<b>SECTOR</b> Equipment			<b>INDUSTRY (SASB)</b> Industrial machinery & Goods			
<b>SUSTAINABLE OBJECTIVE</b>		<b>INVESTMENT THEME</b>		 Energy transition & carbon reduction	<b>RELEVANT SDG'S</b>			<div>13</div>	Climate action		
<b>IMPACT POTENTIAL</b> (assessment on five dimensions of impact)	 <b>WHAT</b>		 <b>WHO</b>	 <b>HOW MUCH</b>			 <b>ADDITIONALITY</b>		 <b>MODERATORS</b>		
	Level of outcome contributed to		Importance to stakeholders	How underserved stakeholders are to the outcome	Scale	Degree	Duration	Extent to which the outcome is better than what will likely occur		Risk of moderating factors reducing impact	
<b>STATUS PER CLOSING (SCORE 1-5)</b>	55		5	n.a.55			4		4		
<b>EXPLANATION</b>	Carbyon is developing a technology for Direct Air Capture, seeking to enable CO2 capture with relatively low energy requirements.  <i>Intended outcome:</i> reducing the amount of CO2 in the atmosphere.  The need for carbon-negative technologies is argued by institutes like the IPCC and UNFCCC, and confirmed by the EC through the EU Taxonomy.		As stated by the IPCC (2018) “all pathways that limit global warming to 1.5°C (...) project the use of carbon dioxide removal on the order of 100–1000 GtCO2 over the 21st century”. Existing net-negative technologies face a range of limitations including high energy intensity.	<i>Degree:</i> The technology is significantly more energy efficient compared to existing technologies, thus significantly lowering carbon footprint.  The amount of CO2 that can be removed from the atmosphere is unknown at this stage.  <i>Duration:</i> The technology is expected to provide a long-term solution.			DAC is seen as one of the primary carbon negative solutions.  The lower energy consumption of the technology provides it with an inherent advantage over competing DAC technologies in terms of product lifecycle GHG emissions and, critically, cost price per ton of captured CO2.		Out of 7 impact risk types, only ‘market-based risk’ is rated material (i.e. (very) likely with major or severe consequences).  Market-based risk: Clients may employ non-renewable energy sources, reducing net impact on GHG emissions and adversely harming other sustainability objectives that are dependent on available energy.		
<b>EU TAXONOMY ELIGIBILITY</b>	<b>TAXONOMY ELIGIBLE</b> Yes		<b>EU OBJECTIVE</b> Climate change mitigation			<b>TRANSITIONAL / ENABLING ACTIVITY</b> Enabling					
<b>IMPACT CRITERIA</b>	<b>INTENTIONALITY</b> Company has a stated purpose and has made impact core to its value proposition 				<b>SCALABILITY</b> Business model shows potential for growth that is in line with impact objectives 						
<b>SUSTAINABILITY RISKS &amp; ADVERSE IMPACTS</b>	<b>ESG RISK &amp; MATERIALITY</b> Assessment performed 		<b>ESG MATURITY</b> High-level assessment performed 			<b>RESPONSIBLE OPERATIONS</b> Key ESG-related factors are manageable and company makes a clear commitment to do so 					

# Our portfolio: monitoring and continuous improvement

As active shareholder, we support our portfolio companies in improving their ESG performance, or what we call 'ESG management capacity'. Through dialogue, we exchange knowledge and views and offer advice and guidance where needed. Throughout, we leverage our ESG framework.

What distinguishes our framework is the bespoke nature of its different features. Notably, company stage is a key consideration in setting our ESG performance standard, as reflected in our scrutiny of performance data.

To support performance monitoring, we put together a set of performance indicators based on a) our framework, b) discussions with our LPs, and c) broadly accepted reporting standards and frameworks. Annually, data are self-reported by the companies and aggregated into a dashboard for analysis on company- and portfolio-level. Beyond the data, we highly value narrative, developed through engagement with companies, to provide the necessary context and depth.

In this chapter, we provide:

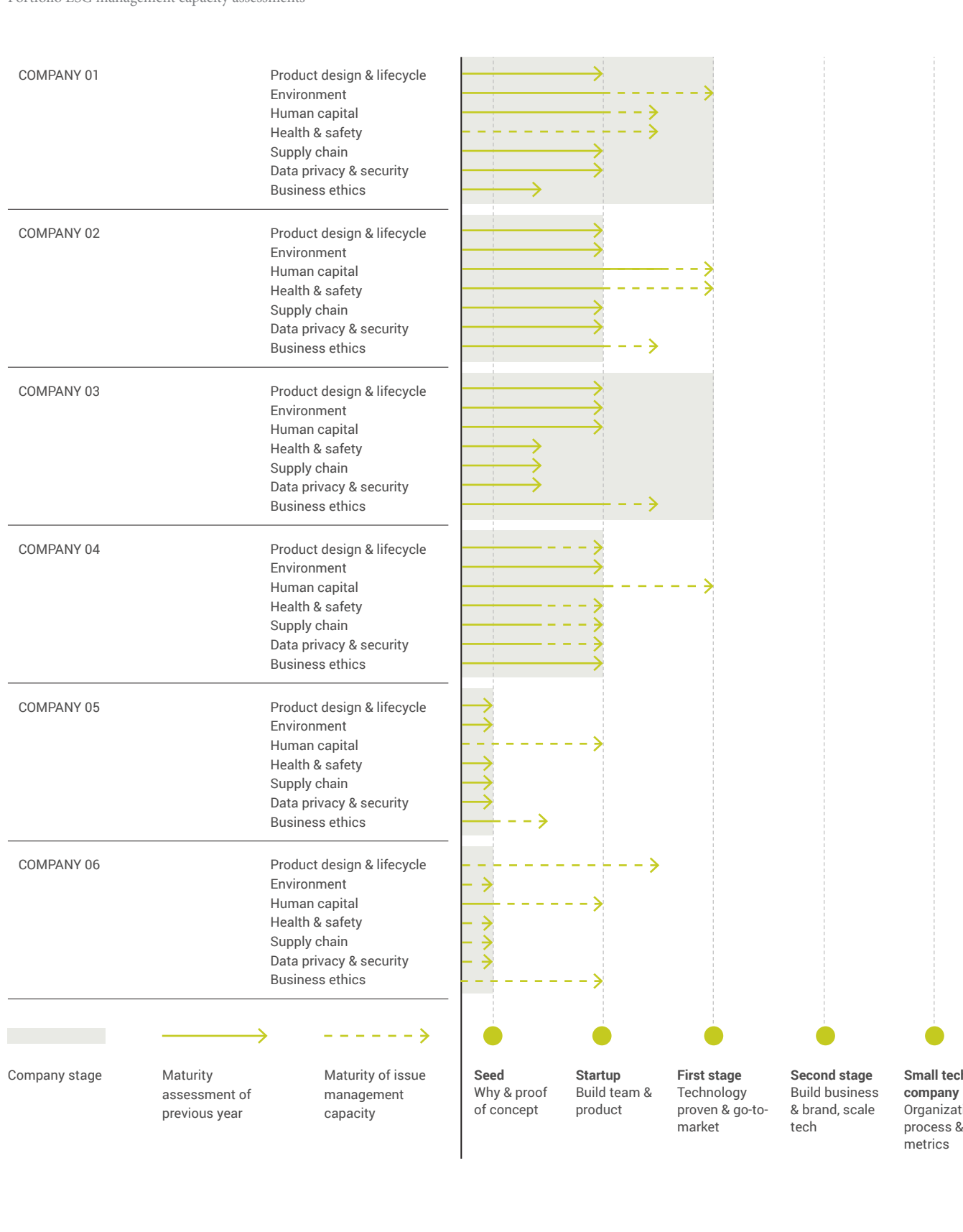
- a. an assessment of the level of maturity of ESG management capacity for each of our portfolio companies on seven issue categories, including progress compared to the previous year (2021)
- b. an issue-based narrative report, supported by portfolio-level KPIs

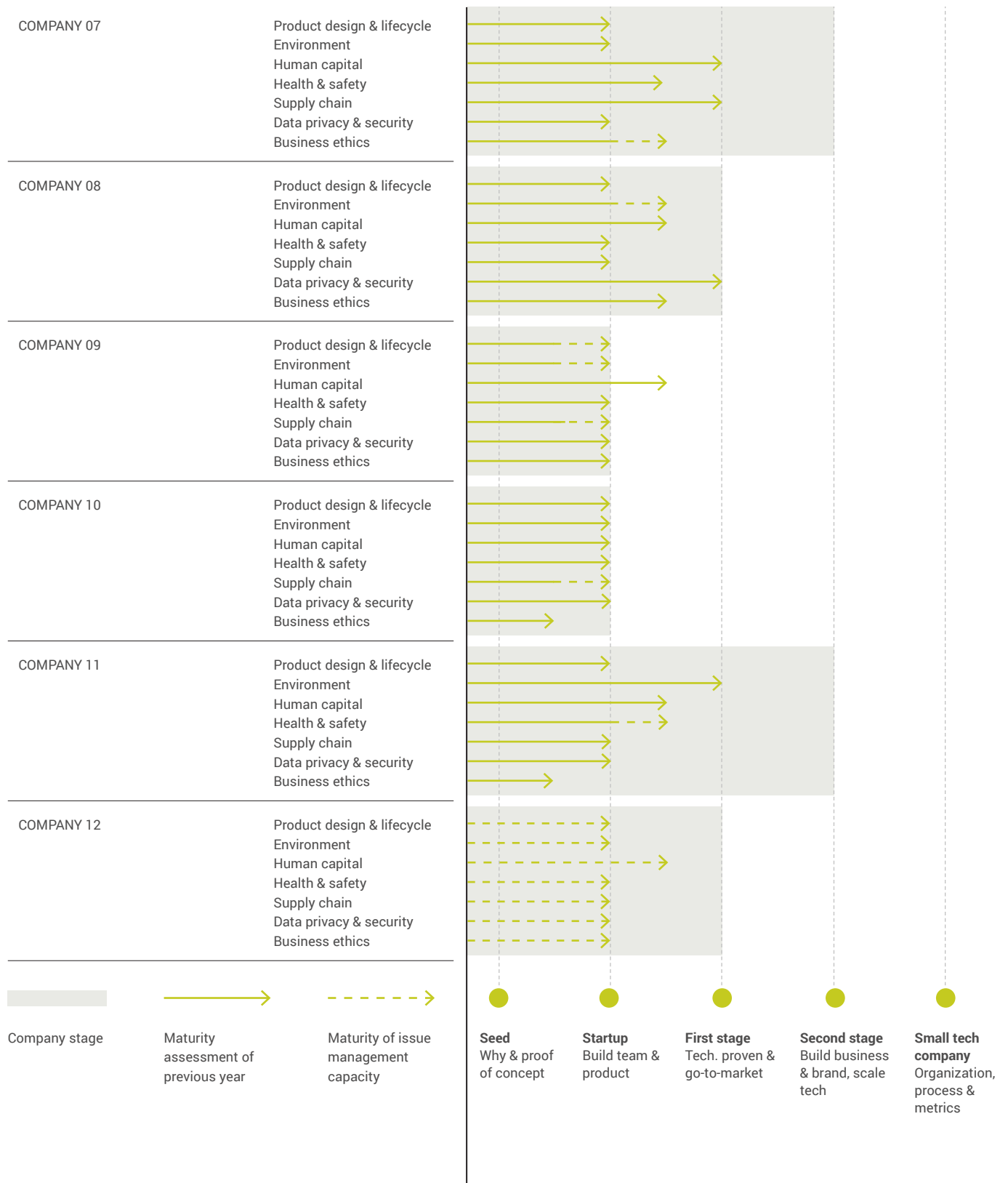
## Assessment of ESG management capacity

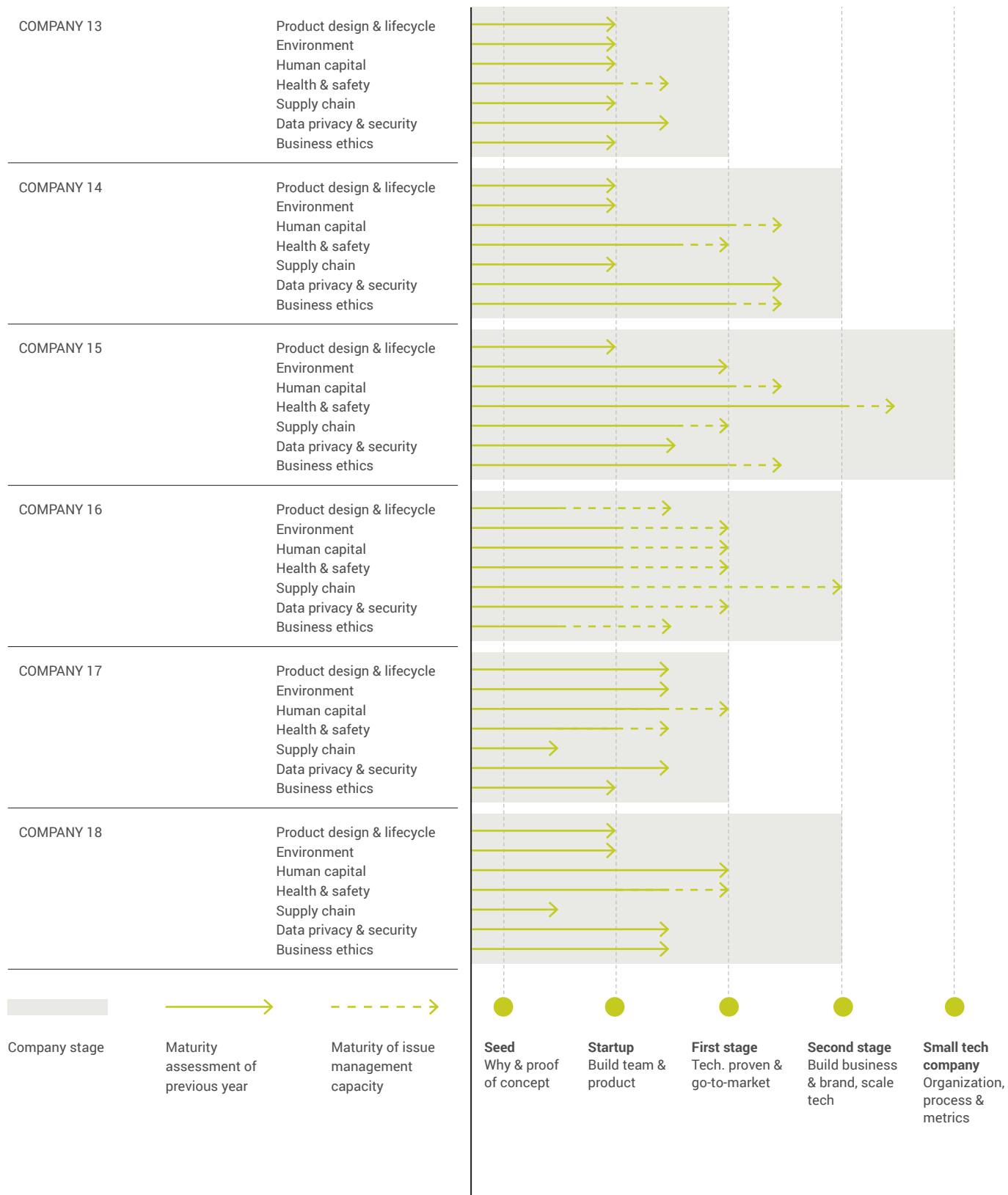
Our ESG framework has been developed around the ESG Maturity Grid; our customized standard for ESG management over the different stages of companies' evolution, from seed to maturity. The Maturity Grid is also a tool for performance monitoring and focused engagement, designed to reflect the general dynamics and context of start-up and scale-up companies. It is effective as it offers structure and direction while allowing the necessary flexibility.

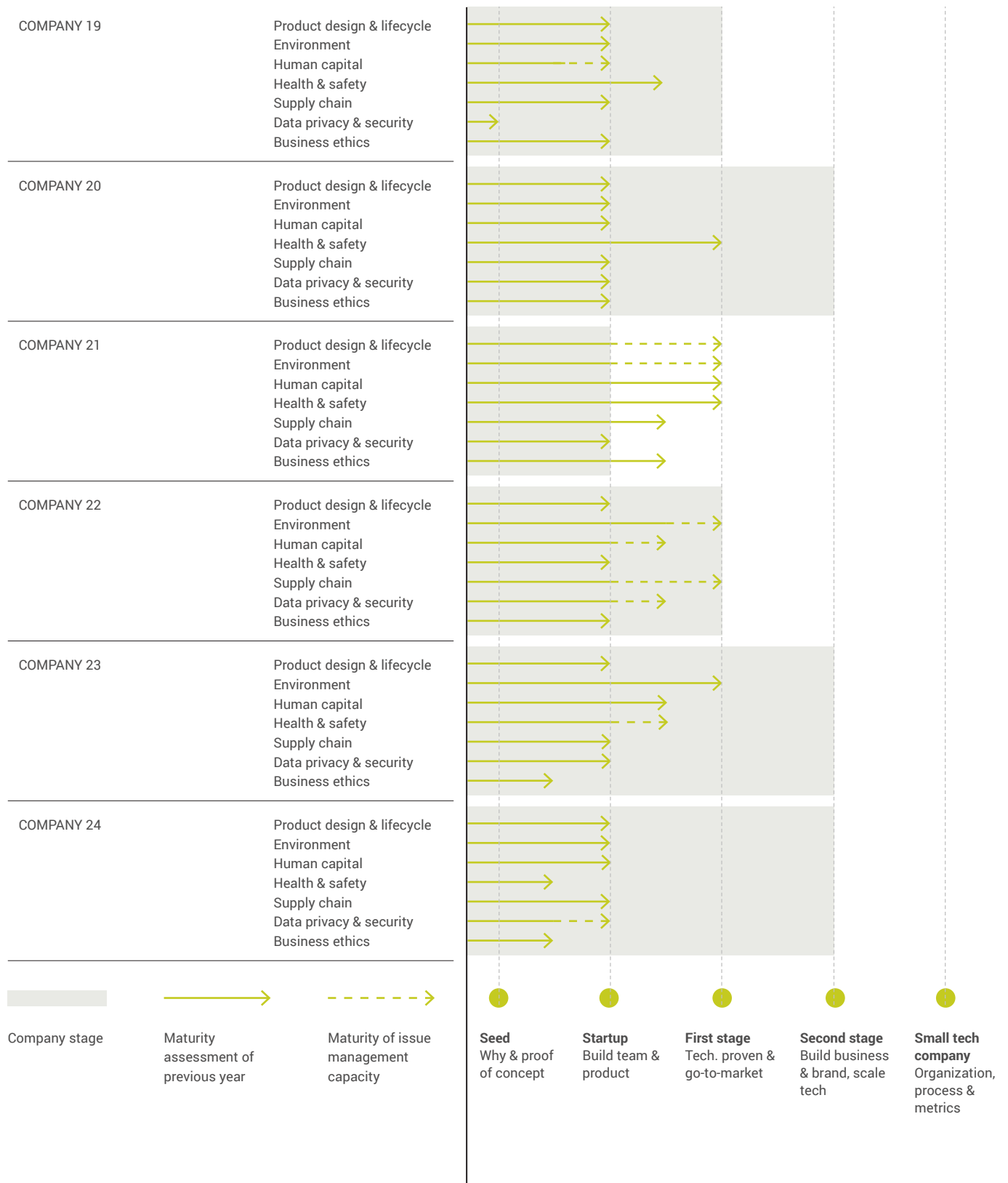
On the basis of the ESG Maturity Grid, in 2022 we re-assessed the level of maturity of portfolio companies' ESG management capacity. The outcome signifies the extent to which companies fulfil key stage-based expectations. In some cases, a certain issue (category) may be less relevant, or even immaterial, to a company at the time of our assessment. In these cases, we dismiss the criteria related to the stage the company is in. If the level of materiality changes, this would induce a renewed assessment.











## ESG Narrative

In this section, we report on the issue categories of our ESG Maturity Grid, representing key material topics for our portfolio.

Per issue category, we provide an *issue profile*, wherein we set out the key (contextual) aspects that define where and how it is material<sup>26</sup> to our portfolio and that shape our approach.

Next, we provide insight into developments within our portfolio through company cases. We describe actions specific portfolio companies have taken or have committed to, as well as challenges faced in this process.

Performance across our full portfolio<sup>27</sup> is reported through portfolio-level KPIs.

<sup>26</sup> We define 'material' as: having a potentially substantial impact on a company's ability to create and preserve economic, social and environmental value. To be labelled as material, an issue has to be a) recognized by stakeholders (including peers and competitors) as key to the sector and/or technology of interest, b) dealt with in relevant (international) standards, agreements and laws, and/or c) posing risks or opportunities (e.g. impacting the potential of a business model or influencing licence to operate) in view of the specific characteristics of the company.

<sup>27</sup> with the exception of SMART Robotics and Arkitech: 2022 data unavailable. Progress monitored through engagement; KPI-based monitoring to be resumed in 2023.

## \_PRODUCT DESIGN & LIFECYCLE

This issue category concerns product development in consideration of lifecycle impact related to material input, product use and product end-of-life. It is about “a company’s ability to address customer and societal demand for more sustainable products and services as well as to meet evolving environmental and social regulation”<sup>28</sup>. This category does not cover the impact of operations but the characteristics of the product(s) and/or service(s) under development and/or offered.

Within our portfolio, we perceive a shift in views on the (direct) significance of this topic. In all likelihood, this is the consequence of several developments:

### **A maturing portfolio**

Several companies in our portfolio have or are slowly moving towards the next stage of maturity. In 2021, we reported that most companies recognized the relevance of problems like the high energy intensity of and use of hazardous substances in industrial processes but felt proving the technology under development should take priority. Engagement often led to the conclusion that (measuring and improving) product environmental footprint was to be addressed for next-generation products. We perceive that several companies, as they move from one stage to the next, are increasingly open to the idea of taking steps such as performance of a product lifecycle assessment (LCA).

### **Impact-based business models**

Impact-based business models have become more prominent within our portfolio, as a consequence of a) recent investments in high-impact companies like Lionvolt (2021) and Carbyon (2022), b) strategic pivots (see case study SparkNano), and c) increasing management-level awareness regarding the positive impact potential of technologies and related (commercial) opportunities.

### **A changing external environment**

A proposal for an ‘EU Ecodesign for Sustainable Products Regulation’ was published by the European Commission in 2022, establishing “a framework to set ecodesign requirements for specific product groups to significantly improve their circularity, energy performance and other environmental sustainability aspects.”<sup>29</sup> Driven by such regulatory developments, changing societal perceptions regarding corporate social responsibility and more critical consumers, large companies are actively addressing ecodesign aspects in their supply chain. As circularity, energy performance and other sustainability factors are becoming progressively more important to the (potential) partners and/or customers of our portfolio companies, the opportunity arises for product differentiation on the basis of these factors. In some cases, sustainability and commercial targets even align directly, for instance, when reduction of product energy requirements is a criterium for market adoption).

## ECODESIGN TOPICS

Within our portfolio, usually, focus is initially on basic factors such as product durability, reusability and reparability, which are often directly relevant from a commercial perspective. Related factors such as modularity may be key also in view of cost-down objectives. Environmental topics we had some more advanced dialogues on in 2022 are product resource efficiency, including use of critical and rare raw materials (see case study), and product energy efficiency.

In terms of use phase environmental impact, product energy consumption is among the most relevant performance indicators. At play here are external factors such as geopolitical tension and conflict, and their impact on the energy market, as well as the increasingly pressing climate crisis. Another factor is that, like material requirements, energy requirements often pose a bottleneck to the adoption of emerging (green) technologies.

<sup>28</sup> SASB Materiality Map

<sup>29</sup> [commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products\\_en](https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products_en)



### High risk sector(s)

- Equipment
- Semiconductor & photonic products
- Med tech
- Technology hardware



### Relevant business function(s)

- R&D (product): material input, use phase and end-of-life



### Material issues

- Hazardous material inputs
- Product resource efficiency
- Product energy efficiency
- Product waste management (e.g. recycling)



### Relevant portfolio characteristics

- Companies are highly focused on research & development
- Companies usually have a highly innovative mindset and capacity
- Companies generally have limited influence on the material composition of key components



### Key source(s) of risk and/or impact

- (Lack of insight into) the use of potential conflict minerals or substances banned or restricted under REACH or RoHS
- High intensity of raw material use for semiconductor and photonic products (ICs), including rare earth elements
- High intensity of raw material use for (large) equipment, mainly metals (steel, aluminium)
- Dependency on materials that cause relatively high negative impact in the upstream supply chain (e.g. during refinery), such as rare earths or raw materials classified as critical by the EU)
- Reliance on hazardous substances for product (equipment) usage, specifically: resins, precursors for thin-film deposition, printing materials or gasses
- Energy intensity of equipment
- Use of disposables, notably for medical equipment (e.g. plastic drapes)



### Key opportunities

- Product differentiation, e.g. by making energy efficiency a product performance indicator or reducing the need for hazardous substances or rare materials. This could lower cost of ownership for corporate customers and/or help them meet demand for more sustainable products as well as broader stakeholder demands
- Cost reduction, e.g. through product resource efficiency

- Supply chain risk reduction, e.g. through resource efficiency or replacement of rare/critical materials
- Innovative end-of-life solutions such as product-take-back schemes wherein a product is either repaired, updated and returned to the owner or resold, or disassembled so that materials can be recycled and used to create a refurbished product



### Interrelated issue categories

- Supply chain



### Key performance indicators

—

## **\_ENVIRONMENT**

This category is primarily about the environmental impact of internal operations, including research & development (R&D) and inhouse production. It has broader relevance, however. First of all, legal requirements for and restrictions to the R&D process and opportunities to reduce its adverse impact might produce relevant lessons for product design. Secondly, knowledge of the environmental impact of production is relevant to companies that outsource the process insofar as it offers opportunities to reduce product lifecycle impact through design as well as insight into (residual) supply chain risks.

Within our portfolio, we continue to observe increased awareness of and willingness to better understand and reduce the environmental footprint of activities. Several companies have started to monitor selected indicators, such as energy use, travel and waste streams.





### High risk sector(s)

- Equipment
- Semiconductor & photonic products



### Relevant business function(s)

- R&D (process)
- Production (manufacturing, assembly, integration, testing)
- Office management



### Material issues

- Use of hazardous materials
- Resource efficiency of operations
- Energy efficiency of operations
- Waste management



### Relevant portfolio characteristics

- Companies are highly focused on R&D related activities: >80% is not (yet) producing or has outsourced (at least) manufacturing
- A few companies have outsourced manufacturing but perform one or several of the other production stages inhouse
- Production initially serves product prototyping



### Key source(s) of risk and/or impact

- Reliance on hazardous substances for production (chemicals (e.g. solvents), acids, heavy metals, plastics, etcetera)
- Equipment relying on hazardous substances for product usage and, as such, for development, testing and demonstrations, specifically: resins, precursors for thin-film deposition, printing materials or gasses
- Reliance on clean rooms (for R&D, production and product use)
- High energy-intensity of production processes



### Key opportunities

- Cost reduction, e.g. through process resource efficiency and waste reduction
- Supply chain risk reduction, e.g. through process resource efficiency
- Differentiation from competition through a (relatively) sustainable production process that lowers product environmental footprint



### Interrelated issue categories

- Product design & lifecycle
- Supply chain



### Key performance indicators

—

## \_HUMAN CAPITAL

Human capital is a broad category, encompassing a range of material topics. Human capital management as part of our ESG management system is focused on selected issues (see Issue profile). These topics are all highly interrelated, but each also has a distinct purpose of its own.

In our 2021 report, we discussed the challenges posed by changes set in motion by the COVID-19 crisis, mainly related to hybrid working. In addition to this new reality, it is characteristic of our portfolio that companies often present highly dynamic and turbulent work settings, with production lines being set up, teams rapidly expanding, new markets being addressed, and so on. Such environments present relatively high risks related to employees' mental health and wellbeing. Hence, during engagement, we are keen to understand if management is sufficiently aware of (the need to manage) these risks.

Overall, we feel that the level of awareness is high and that leadership teams are taking action in furtherance of employees' wellbeing as well as their overall satisfaction. Practices commonly observed within our portfolio include:

- performance of employee satisfaction survey, either regularly or on as-needed basis (*35 percent of companies*);
- explicit focus on creating a strong culture that is characterized by openness, approachability and transparency (*mainly smaller and younger teams*);
- regular meetings involving MT members (including the HR manager), and middle management/team leads to discuss the wellbeing of people within (sub-)teams (*smaller larger teams*); and,
- exit interviews as part of standard procedure.



### High risk sector(s)

- All



### Relevant business function(s)

- Human resource management



### Material issues

- Employee attraction & retention
- Performance management
- Mental health & wellbeing
- Culture building
- Diversity & inclusion



### Relevant portfolio characteristics

- Companies have limited financial resources on hand for, for instance, employee compensation and fringe benefits or professionalizing HR practices (e.g. hiring an HR officer)
- Work is highly technical and often requires expert knowledge
- Most companies are male dominated, on the team level and even more so on the board and MT level, which is a reflection of the status in their sector
- Most companies are highly culturally diverse



### Key source(s) of risk and/or impact

- By necessity, a strong reliance on intrinsic motivation of employees due to lower job security and (commonly) a relatively low salary (*majority of companies*)
- The high tech character of ventures, making it relatively difficult to find qualified women, especially on senior level (*majority of companies*)
- Reliance on employees with skill-sets that are scarce and highly desirable in the market, leading to relatively high turnover
- (The possibility of) rapid team growth that will introduce a range of previously unknown requirements and challenges
- (The possibility of) high workloads characterizing the transition from one stage to the next (e.g. scale-up)



### Key opportunities

- Building a team of highly engaged and intrinsically motivated people, by exploiting the advantages offered by a start-up environment, centred around both decisiveness and inclusiveness
- Using organisational purpose as key motivator to (potential) employees; the positive impact a company has on the wellbeing of a broad range of stakeholders is of increasing importance in the labour market
- Supporting the development of a strong and ethical culture by embedding company values in all human capital management related activities (see 'business ethics')



### Interrelated issue categories

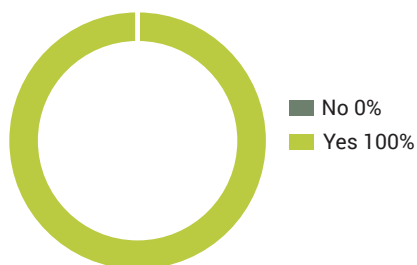
- Occupational health & safety
- Business ethics



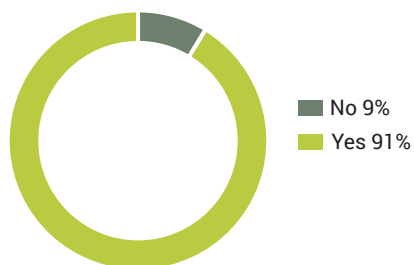
### Key performance indicators

- Employee participation plan in place tying employee compensation to company growth
- Employee handbook in place clarifying to employees, amongst others, employment conditions (e.g. with regard to overtime and flexible working) and performance & development cycles
- Employee survey conducted
- Employee development made central to performance management, through personal development plans and interventions such as training and coaching
- Clearly articulated employee value proposition (EVP) in place
- Written diversity & inclusion policy in place and implemented

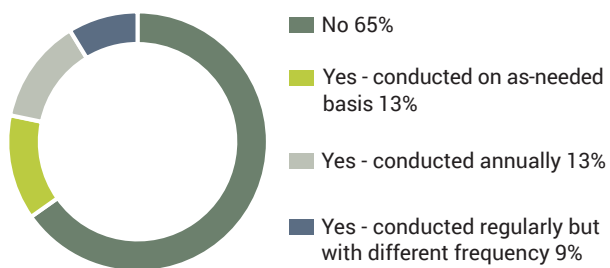
Employee participation plan in place



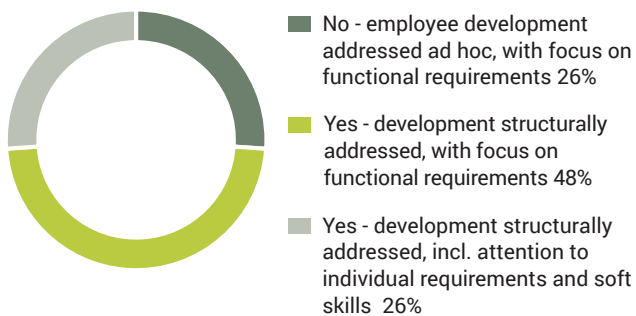
Employee handbook in place



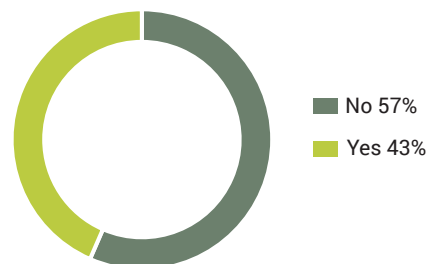
Employee survey conducted



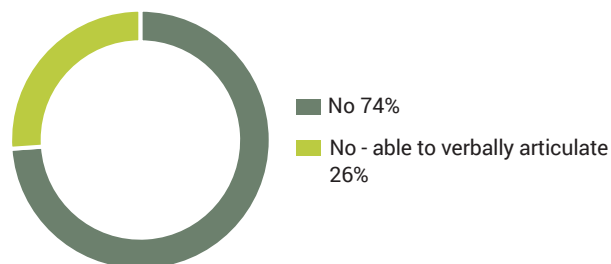
Employee development made central to performance management



Clearly articulated employee value proposition in place



Diversity & inclusion policy in place



## **\_OCCUPATIONAL HEALTH & SAFETY**

Providing a safe and healthy work environment for workers throughout the supply chain (both up- and downstream) should be a vital matter to any company. Although direct safety risks may be immaterial due to the character of internal activities, working conditions should be a point of attention for companies in all stages. Early stage companies, for instance, have to consider risks related to high workloads and rapidly expanding organizations (see 'Human capital'). For this reason, performance of an early risk assessment is something we actively encourage.

Within our portfolio, we perceive a generally high level of awareness and actionability when it comes to health and safety risks. However, as addressed in our 2021 report, many

early-stage companies struggle with designing a suitable approach to structurally embedding risk awareness and compliance with internal rules and procedures. The data show that, per the end of 2022, 70 percent of companies had trained its staff, either on a one-off/as-needed basis (often as part of onboarding) or regularly, through a structured training program.

Another recurring topic during engagement is the importance of monitoring metrics such as number of incidents, accidents and near-misses. Performance monitoring is key not just to support risk management on management and board level, but also because encouraging employees to report supports a strong safety culture, characterized by engagement and awareness.



### High risk sector(s)

- Equipment
- Semiconductor & photonic products
- Med tech
- Food-Agri tech



### Relevant business function(s)

- R&D (process and product)
- Production (manufacturing, assembly, integration, testing)
- Sales & distribution



### Material issues

- Health & safety in the workplace
- Product safety



### Relevant portfolio characteristics

- R&D focus: >80% of companies is not (yet) producing or has outsourced production
- A few companies have outsourced manufacturing but perform one or several of the other production stages inhouse
- Early-stage companies sometimes perform R&D activities in an external lab (e.g. a campus or university lab). In these cases, the policies and rules of the lab apply
- A start-up culture is generally characterised by high levels of individual autonomy and management oversight. As

companies transition from one stage to the next, process formalization may be appropriate, requiring a change in mindset



### Key source(s) of risk and/or impact

- Proprietary lab and/or clean room for R&D or production purposes (*majority of companies*)
- Use of machinery with safety risks
- Reliance on hazardous substances for R&D or production
- Products (equipment) relying on hazardous substances for usage, specifically: resins, precursors for thin-film deposition, printing materials or gasses
- Product safety (equipment) being dependent not just on quality, technical specifications and safety-settings but also on aspects such as peripherals and human behaviour



### Key opportunities

- Improving the efficiency of (production) processes or reducing their complexity, can reduce risks to workers' health and safety, for example by making the use of hazardous substances redundant. This can go hand in hand with environmental objectives



### Interrelated issue categories

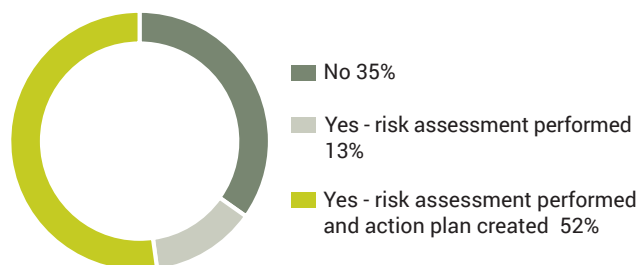
- Product design & lifecycle
- Environment
- Human capital
- Supply chain



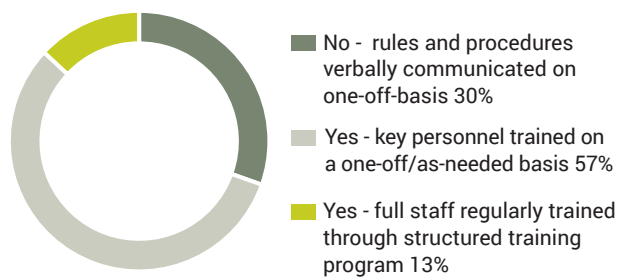
### Key performance indicators

- Internal H&S risk assessment performed and action/improvement plan created to address identified risks
- Staff trained to raise H&S awareness and knowledge of internal policies and procedures
- H&S management system in place that includes the following elements: set objectives, procedures & rules, mitigating actions and monitoring of results

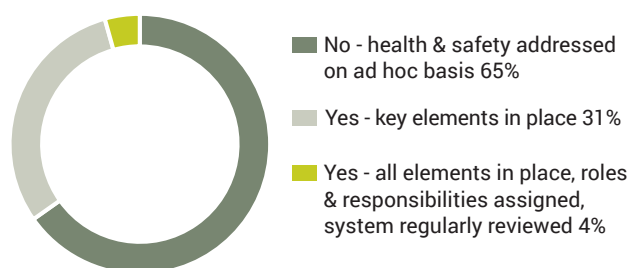
#### Internal H&S risk assessment performed



#### Staff trained to raise H&S awareness and knowledge of internal policies and procedures



#### H&S management system in place



## \_SUPPLY CHAIN

Companies face increasing scrutiny when it comes to the practices in their supply chains, with reputational and legal risks dependent on a range of factors. For start-up and scale-up companies, the key objective is to deploy a manageable approach to building and managing supply chains that will support the long-term sustainability and resilience of their operations. As with other issues, what we deem appropriate is stage-specific, with certain characteristics of early-stage companies (see Issue profile) shaping both the level of risk and impact, and available options for addressing environmental and social topics in supply chains.

As companies move beyond the start-up stage, we encourage them to employ the knowledge and experience of other (larger) players in the ecosystem with assessing and managing risks in the supply

chain. If these players use (some of) the same suppliers, relying on their work can be a valid initial approach to managing risks. Moreover, in due time, their input can be valuable in designing proprietary selection and management measures. Here, aligning with international and industry-wide standards, such as the Responsible Business Alliance (RBA, electronics sector), could increase supplier responsiveness and the ultimate effectiveness of this endeavour.

We observe increasing recognition amongst companies, as they move from one to the next stage of maturity, of the need to be proactive in addressing ESG-factors during supplier selection and management. It is a clear point of attention for the more mature companies in our portfolio and we recognize it as one of our portfolio-wide priorities going forward.





### High risk sector(s)

- Equipment
- Semiconductor & photonic products
- Med tech
- Food-Agri tech
- Technology hardware



### Relevant business function(s)

- Supply chain management



### Material issues

- Responsible supply chain management
- Material sourcing



### Relevant portfolio characteristics

- A majority of companies has outsourced, or plans to outsource, (several stages of) production
- Early-stage companies do not have a supply base yet, or their (initial) supply base is built on the basis of short-term needs
- Technical specifications may limit sourcing options
- Especially prior to scale-up, companies have a) relatively little leverage and b) limited resources available to actively manage suppliers on factors other than technical requirements and quality

- Early-stage supply chain strategies are often based on local production and sourcing, providing benefits with regard to visibility, shared regulatory standards and socio-cultural norms and easier communication



### Key source(s) of risk and/or impact

- Manufacturing of critical modules and components is concentrated in geographical areas with low social and/or environmental standards
- (Very) limited availability of substitutes for critical inputs
- (The possibility of) (indirect) sourcing of high-risk materials and components, such as conflict minerals or rare earth metals (with a heightened risk of human rights violations)
- Dependence on Critical Raw Materials (CRMs) or other scarce materials
- Climate change, resource scarcity and conflict increasingly impacting the regions where supply chain operations are
- Supply chains characterized by a large number of tiers
- The above sources of sustainability-related risk translating into commercial risks, e.g. of supply disruptions and price increases



### Key opportunities

- Avoiding/reducing a range of (long-term) reputational, compliance and commercial risks by considering, in the design phase, supply chain risks related to components and materials

- Cooperating with suppliers to reduce product lifecycle impact (see 'product design & lifecycle')
- Leveraging often-used criteria for supplier selection, such as scale of operations, reliability and professionalism, by supplementing the list with ESG-related criteria
- Building leverage while at the same time strengthening long-term relationships with suppliers through outreach from senior management on key ESG-related topics
- Supporting the development of a strong and ethical culture by aligning the process of sourcing and supply chain management with the company's purpose and values
- Building, from the start, leverage into the relationship with suppliers by including ESG-related conditions and expectations in written agreements



### Interrelated issue categories

- Product design & lifecycle
- Environment
- Occupational health & safety
- Data privacy & security
- Business ethics
- Labour practices  
(not reported as separate issue)

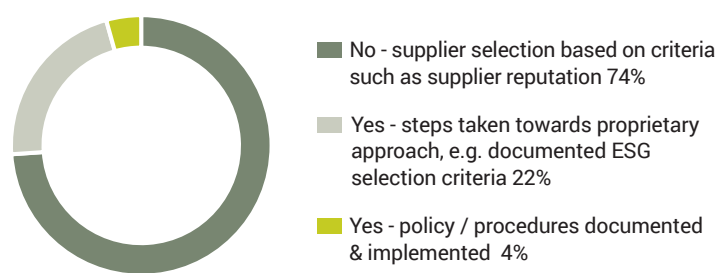


### Key performance indicators

- Documented supply chain management policy or procedure, implemented through contractual arrangements and / or pre-qualification requirements

Supply chain management policy or procedure in place

---



## \_DATA PRIVACY & SECURITY

This category is first and foremost about the processing of data of employees, users and customers. Data processed by companies can be personal, sensitive, confidential and/or proprietary. The collection, retention and use of personal data is a topic that is particularly relevant nowadays. Efforts to address risks are usually driven by the far-reaching EU General Data Protection Regulation<sup>34</sup>. In fact, the risk of non-compliance and/or a data breach is relevant to any company processing personal data in the EU and/or of EU citizens or residents. As such, it is material to our full portfolio as well as to our internal organization.

However, the social issue 'data privacy & security' is strongly interrelated with 'information security'; adequately mitigating the risk of a data breach requires the implementation of cyber- and physical security measures. For our portfolio companies, such measures are essential for another reason, namely, to protect their most valuable asset; their intellectual property.

Our focused attention to improving performance on the topic 'information security' since 2021 (see case study) is reflected in the data. Compared to last year, more companies:

- performed an information security risk assessment or penetration test<sup>35</sup>

32% → 57%

*increase from 32 percent  
to 57 percent*

- implemented an information security policy

27% → 35%

*increase from 27 percent  
to 35 percent*

Despite the steps already taken, we are aware that we need to further improve performance. Initially, we will focus our efforts on two fronts:

1. bringing our portfolio companies to an appropriate level of maturity in their capacity to manage information security related risks; and,
2. improving the availability and quality of data on this topic, to support performance monitoring and reporting.

<sup>34</sup> Regulation (EU) 2016/679, applicable as per May of 2018

<sup>35</sup> a penetration ('pen') test assesses a system and its applications for vulnerabilities and susceptibility to various threats



### Data privacy & security

- Hardware
- Software

### Information security

- All



### Relevant business function(s)

- Human resource management
- Customer relationship management
- Supply chain management
- Information Technology



### Material issues

- Data privacy & security
- Information security



### Relevant portfolio characteristics

- Portfolio companies are selected on the basis of their strong IP position, which protects their novel technology against global competition
- Next to publicly available patents, there is a vast amount of company secrets, such as know-how, process descriptions and next generation equipment under development. This data is typically stored digitally, using company IT systems



### Key source(s) of risk and/or impact

- Companies offering remote-working, with full access to servers with all relevant data (*majority of companies*)
- (Confidential, proprietary, sensitive) customer data being shared with suppliers for purposes of product development
- Intellectual Property being shared with suppliers, (potential) partners or investors
- Development and commercialization of internet-connected products
- Development and commercialization of internet-connected products
- Customer-facing website that offers additional attack vectors for cyberattacks



### Key opportunities

—



### Interrelated issue categories

—

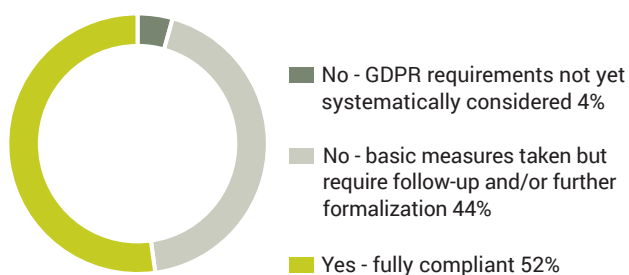


### Key performance indicators

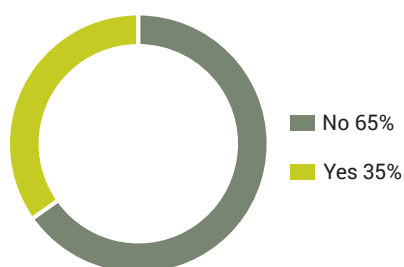
- Recruitment & HR compliant with the EU General Data Protection Regulation (GDPR) (e.g. documented employee privacy policy, data processing register created, retention periods defined)
- Privacy statement in place through which company addresses relevant data subjects<sup>36</sup>, including website visitors, (potential) customers, suppliers and partners, in line with GDPR requirements
- Written information security policy in place that includes at least the following elements: fixed contractual clauses, authorization & access control and information security roles & responsibilities
- Information security risk assessment performed

<sup>36</sup> Data subjects are defined as: people from or about whom information is collected in connection with a company's business and operations

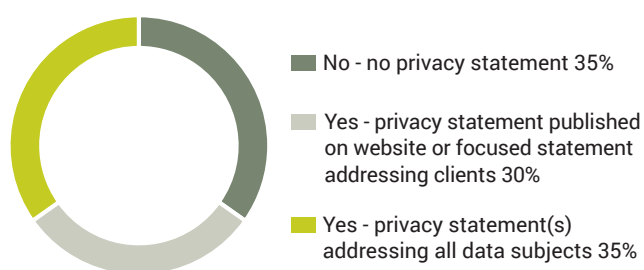
#### Recruitment and HR activities GDPR compliant



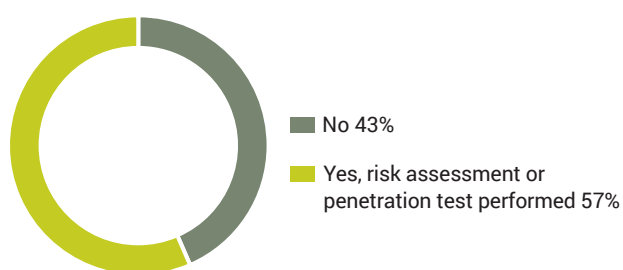
#### Written information security policy in place



#### Privacy statement in place through which company addresses relevant data subjects



#### Information security risk assessment performed



## \_BUSINESS ETHICS

We interpret this issue broadly, to encompass every consideration of ethical standards in all business relations, including with (potential) customers, authorities, contractors and suppliers, distributors and other (strategic) business partners. An ethical business a) is explicit about its core values; b) consistently acts in accordance with these values, and c) extends these values to its business relationships.

Similar to our observation in 2021, this year, for many companies focus was on one or several of the following items (as reflected in the data):

- (re-)defining organizational purpose and values, and aligning the two
- measures to ensure that values actually shape the company's 'way of working', for example by using them as a basis for performance appraisals or external communications

- translating values into rules of conduct (e.g. in handbook) or, ultimately, a code of conduct

70%

of companies has defined rules/ principles for behavior, either as part of existing documents or through a separate code of conduct

As reported in the section 'Supply chain', several companies also embedded ethical standards and values in the selection and/or management of suppliers. However, translating values into the way downstream relations are managed, through for instance the partner selection process and go-to-market strategy, is considered relatively difficult. Our portfolio company Solynta took an important step in addressing ethical standards with its partners (see case study).

56%

of companies has in place a set of core values that aligns with purpose and characterizes 'way of working' or even 'drives culture'



### High risk sector(s)

- All



### Relevant business function(s)

- All



### Material issues

- Business conduct, including:
  - Bribery & corruption
  - Conflict of interest
  - Fraud



### Relevant portfolio characteristics

- Early stage companies do not yet engage in business development or sales
- Over the different stages of their development, companies engage in a range of partnerships, including with contractors & suppliers, distributors and potential customers
- Extending a company's core values to these partnerships can be difficult for early-stage companies, considering their relative vulnerability, limited bargaining power and, in some cases, the limited availability of options
- The scope and depth of risk expand as companies mature and business relationships increase in number and intensity, teams expand and activities internationalize



### Key source(s) of risk and/or impact

- Use of intermediaries (distributors, agents) as part of go-to-market strategy (*majority of companies*)
- Internationally operating sales team (with local employees)
- (Some) target markets are high-risk regions (e.g. with high perceived levels of public corruption<sup>37</sup>)
- (Some) potential clients in target markets are state-owned
- Go-to-market strategy based on high-volume sales
- Misbehaviour not being reported internally, when teams are small and close-knit (making (anonymous) reporting more difficult)



### Key opportunities

- Stimulating a learning organization while at the same time improving the way (social) issues such as high workloads and undesirable behaviour are addressed, by creating a culture that is characterized by discussability, where people feel free to share concerns and where management is approachable; an open culture will do more than mitigate the risk of ethics issues spiralling out of control



### Interrelated issue categories

- Human capital

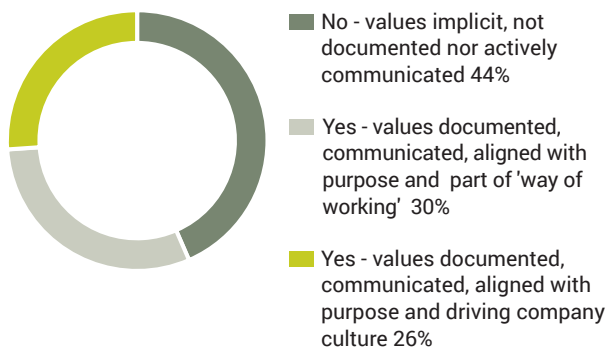


### Key performance indicators

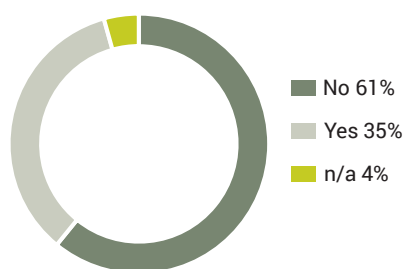
- Organisational purpose and core values documented, communicated and integrated
- Code of conduct in place, addressing issues such as conflict of interest, giving or accepting gifts and facilitation payments
- Internal reporting procedure in place
- Contracts with distributors, agents and other intermediaries include an anti-bribery & -corruption clause

<sup>37</sup> See Corruption Perception Index (CPI), Transparency International

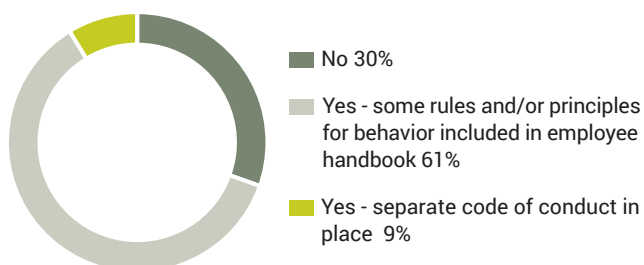
#### Purpose and core values documented, communicated and integrated



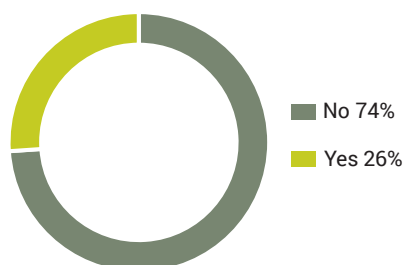
#### Contracts with distributors, agents and other intermediaries include an anti-bribery & -corruption clause



#### Code of conduct in place



#### Internal reporting procedure in place





# Appendix I: Governance approach

In this section we set out Innovation Industries' governance approach. We describe both the key elements of our approach to internal governance, for Innovation Industries and the portfolio companies, and the basic principles shaping our relationship with portfolio companies, i.e. investor stewardship.

## Internal governance structure

Innovation Industries has an investment team consisting of the General Partners and other investment team members (Directors, Managers, Associates, Analysts). The General Partners are responsible for managing the fund management company and the funds.

Moreover, the General Partners form the investment committee, and in that capacity are responsible for formally approving investments and divestments. To be able to form a sound opinion on an investment opportunity or divestiture, the committee receives a memorandum prepared by a deal team consisting of two or more employees from the investment team, amongst which at least one General Partner (being project leader). This memorandum will amongst others characterize the company, summarize the outcome of the due diligence process and describe the deal terms that have been negotiated. The assessment of ESG risks and opportunities is part of the due diligence process.

Each fund has an Advisory Board made up of representatives of the largest investors of the funds. Potential issues are escalated by the investment committee to the Advisory Board of the fund concerned. The Advisory Board meets at least semi-annually to discuss the financial position of the fund and the status of the investments in each of the portfolio companies.

## Compliance policies & procedures

Innovation Industries has a Policies & Procedures Manual which describes its approach to fund governance, risk management and regulatory compliance.

The manual describes the principles, procedures and controls used to manage and monitor risks, including but not limited to compliance risks. Risks analysed pertain both to Innovation Industries' funds and portfolio companies and to the fund manager. Sharing this document with stakeholders, amongst which investors, is part of our approach to ensure transparency about (the mitigation of) inherent risks and accountability.

Our compliance program is designed to ensure compliance with the Financial Supervision Act (which regulates investment firms), the Anti-Money Laundering and Anti-Terrorist Financing Act and the Sanctions Act 1977. Central to this program are

arrangements to prevent and manage conflicts of interests. The manual includes a Code of Conduct, a Conflict of Interest Policy, a Personal Account Dealing Policy, an Outside Positions Policy, and a Gifts and Entertainment Policy.

All employees have received the manual and signed a declaration in which they confirm to have reviewed its content and to comply with the rules set out.

## Governance principles for portfolio companies

In our relationship with portfolio companies, good governance is:

- a) a means to manage risks and an opportunity to create economic value,
- b) a prerequisite for attaining broader environmental and social objectives, and
- c) a control mechanism for issues labelled as 'governance issues' that have significant environmental and/or social impact (e.g. bribery & corruption).

Governance is one of the topics central to our investment process. Material to our investment portfolio are for instance the composition and functioning of both management and supervisory boards, as are compensation and incentive structures for employees.

Our expectations of companies are largely case-specific; there is no one-size-fits-all approach. Nevertheless, we have formulated a basic set of

requirements for the governance structure of companies that we consistently apply:

- I. The supervisory board should support the management board.
- II. The supervisory board should be able to operate effectively, which is assured by:
  - i. Limited size of the board;
  - ii. Assessment of all members on a set of key competencies and added value.
- III. Management should be clearly instructed as to when supervisory board and/or general meeting of shareholders approval is required (consent rights).
- IV. The structure of the general meeting of shareholders should be such that clear and effective decision-making is facilitated.

For as long as Innovation Industries is a shareholder, we will both supervise and actively engage with the portfolio companies on risks and opportunities, including but not limited to the abovementioned governance issues.

Innovation Industries supports the ICGN Global Governance Principles and the OECD Principles of Corporate Governance.

### **Investor stewardship**

We apply a standard but flexible governance framework for investor stewardship, which serves to protect and create value.

Essential to our approach to investor stewardship is the appointment of one of our General Partners or Directors on the supervisory board of

each portfolio company. This General Partner acts as lead for engaging with the company and monitoring progress. Another basic rule is that we keep our responsibilities in the capacity of shareholder strictly separate from those we have as board member; these roles are never exercised by the same person for a portfolio company.

As a member of the Dutch Private Equity and Venture Capital Association (NVP), Innovation Industries supports the NVP code of conduct. This code sets standards for the relationship with and agreements made with stakeholders, amongst which portfolio company (supervisory) boards and co-shareholders.

## Appendix II: The UN SDGs

17 Sustainable Development Goals (SDGs) were adopted in 2015 by the countries of the United Nations with the aim of solving the most pressing social and environmental challenges of our time. The SDGs call on all companies globally to address these challenges through innovation and creativity and to demonstrate how their business helps to advance sustainable development. To achieve the goals, companies are asked find solutions to minimize negative impact and to maximize positive impact on people and planet.

Through our investments we seek to contribute to a range of SDGs and related targets, as set out in figure 5.

Figure 5. Technology-based impact potential: relevant SDGs and targets

2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> <li>• Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaption to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality (2.4)</li> </ul>
3	Ensure healthy lives and promote well-being for all at all ages	<ul style="list-style-type: none"> <li>• Reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being (3.4)</li> <li>• Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination (3.9)</li> </ul>
7	Ensure access to affordable, reliable, sustainable and modern energy for all	<ul style="list-style-type: none"> <li>• Increase substantially the share of renewable energy in the global energy mix (7.2)</li> <li>• Double the global rate of improvement in energy efficiency (7.3)</li> </ul>
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	<ul style="list-style-type: none"> <li>• Develop quality, reliable, sustainable and resilient infrastructure,(...), to support economic development and human well-being, with a focus on affordable and equitable access for all (9.1)</li> <li>• Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes (9.4)</li> </ul>
11	Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> <li>• Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, (...) (11.2)</li> <li>• Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities (11.7)</li> </ul>
12	Ensure sustainable consumption and production patterns	<ul style="list-style-type: none"> <li>• Achieve sustainable management and efficient use of natural resources (12.2)</li> <li>• Halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses (...) (12.3)</li> <li>• Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment (12.4)</li> <li>• Substantially reduce waste generation through prevention, reduction, recycling and reuse (12.5)</li> </ul>
13	Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> <li>• Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaption, impact reduction and early warning (13.3)</li> </ul>
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	<ul style="list-style-type: none"> <li>• Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution (14.1)</li> </ul>

*Signatory of:*

