

# PAI Methodology

## (Principal Adverse Impacts)

### Document history

Version	Date	Description	Author	Review	Approval
2	June 2025	Change in definition of DNSH thresholds	GRC Expert SRI	Head of SRI Strategy & Stewardship	Sustainable & Responsible Investment Committee

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# 1 Introduction

## 1.1 BLI - Banque de Luxembourg Investments

BLI - Banque de Luxembourg Investments ("**BLI**", or the "**Company**") is a management company and an alternative investment fund manager in accordance with Chapter 15 of the Luxembourg law of 17 December 2010 on undertakings for collective investment, as amended, whose authorisation covers, in addition to the activity of collective management pursuant to Article 101 (2), also one or more services provided for by Article 101 (3) of the law of 17 December 2010, and in accordance with the Luxembourg law of 12 July 2013 on alternative investment fund managers.

BLI is a public limited company under Luxembourg law wholly owned by Banque de Luxembourg, Luxembourg ("**BDL**"), itself part of the French financial group Crédit Mutuel Alliance Fédérale ("**CM AF**").

Within the framework of its authorisations, BLI offers its services to investment funds (whether initiated by BDL, by other entities of the CM AF group or by third parties) as well as to institutional or professional clients other than investment funds.

For the majority of investment funds initiated by BDL or other entities of the CM AF group, BLI manages the portfolio. For the majority of investment funds initiated by third-party entities, BLI delegates portfolio management to duly authorised entities proposed by the investment funds in question or their initiators.

## 1.2 Regulatory framework

The principal adverse impacts ("**PAI**") are a key concept in European regulations on sustainable finance disclosure. It is one of the flagship elements of the European Commission's Sustainable Finance Action Plan, which aims to provide greater transparency on the degree of sustainability of financial products, and whose objective is to guide private investment towards sustainable investments. In this context and within the meaning of SFDR<sup>1</sup>, PAIs are defined as "adverse, material or potentially material effects on sustainability factors that are caused, aggravated or directly linked to the investment decisions and advice provided by the legal entity".

PAIs can therefore be seen as the negative Environmental, Social or Governance consequences of the economic activities in which investments are made.

This document summarizes BLI's methodology for taking into account principal adverse impacts

- i. in the following asset classes
  - equities;
  - corporate bonds;
  - sovereign bonds;
  - investment funds; and
- ii. at the level of the individual securities held by the Products specified in section 2 (the "**Products**"), at the level of the Products themselves and at the level of the BLI entity itself (the "**Methodology**").

This document is part of the provisions specified in the contractual and/or pre-contractual documents governing the Products. More specifically, it is intended to provide additional, non-contractual information to the provisions specified in the contractual and/or pre-contractual documents governing the Products. This document is intended for any person investing in a Product or interested in investing in a Product and interested in the Methodology applied by BLI.

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<sup>1</sup> Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector.

Insofar as the Methodology may evolve over time due to various factors (for example: changes in the regulatory framework, availability of relevant data, etc.), this document may evolve without this necessarily resulting in changes to the contractual and/or pre-contractual documents governing the Products.

Any person investing in a Product, or interested in investing in a Product, is therefore invited to consult the BLI website for the current version of the Methodology.

### 1.3 Purpose and scope of application of the Methodology

The purpose of the Methodology is to describe the analysis and prioritisation of the principal adverse impacts defined in the SFDR framework, so that the negative sustainability impacts of the selected companies' activities can be taken into account.

It considers PAIs at three levels:

- at the level of individual securities with sustainability objectives to show that they do not harm other sustainability objectives ('do no significant harm' or '**DNSH**')
- at the level of the Products taking PAIs into account
- at the level of BLI's declaration of the principal adverse impacts (PAI Statement) pursuant to Article 4 of the SFDR concerning the disclosure of information on the consideration or otherwise of PAIs as regards sustainability as a result of its investment decisions.

The Methodology summarised in this document applies to the following products:

- investment funds (and their sub-funds) (i) whose portfolio is managed by BLI (thus excluding investment funds (and their sub-funds) for which BLI acts as management company or alternative investment fund manager but whose portfolio management is entrusted to a third party<sup>2</sup>) and (ii) whose contractual and/or pre-contractual documents indicate that the Methodology applies; and
- any other product (including discretionary management mandates) (i) for the part of the portfolio managed by BLI and (ii) for which the contractual and/or pre-contractual documents indicate that the Methodology applies.

### 1.4 Definitions

Controversies	A controversy indicates a company's involvement in incidents related to extra-financial and/or financial elements.
Exclusion	An exclusion is the act of prohibiting a portfolio from holding the securities of a company due to business activities deemed unethical, harmful to society or in violation of laws or regulations.
Governance	The set of rules, practices and processes by which a company is managed (governed), the management of which is supervised.
UN Sustainable Development Goals (SDGs)	The 17 Sustainable Development Goals provide a roadmap to a better and more sustainable future for everyone. They address global challenges including poverty, inequality, climate, environmental degradation, prosperity, peace and justice.
UN Global Compact	A United Nations initiative aimed at encouraging companies around the world to adopt a socially responsible attitude by committing to integrate and promote a number of principles

<sup>2</sup> For these products, the Methodology established by the delegated manager applies.

	relating to human rights, international labour standards, the environment and the fight against corruption.
UN Principles for Responsible Investment (UN PRI)	The six Principles provide a range of possible actions to incorporate ESG concerns into investment practices.

## 2 PAI definition

In order to identify and assess the Principal Adverse Impacts affecting sustainability, the European Commission has determined 64 PAI indicators classified by investment category: private issuers (equities and bonds), sovereign issuers and real estate.

The indicators are detailed in three tables in Annex 1 of the Delegated Regulation (EU) 2022/1288<sup>3</sup> (the '**Delegated Regulation**').

- Table 1 lists the indicators to be taken into account by producers of investment products (14 for private issuers, 2 for sovereign/parastatal issuers and 2 for real estate investments).
- Table 2 lists additional environmental indicators (16 for private issuers, 1 for sovereign/parastatal issuers and 5 for real estate investments).
- Table 3 lists additional social indicators (17 for private issuers, 7 for sovereign/parastatal issuers and 0 for real estate investments).

Producers of investment products are obliged to take a position on the indicators listed in Table 1. They must also select one additional environmental indicator and one additional social indicator per investment category (private issuers, sovereigns and real estate investments) from the 46 additional indicators.

## 3 DNSH approach: PAIs considered at the level of individual investments

Article 2 (17) SFDR defines a general framework for sustainable investments. The investment considered sustainable must be:

- in an economic activity that contributes to an environmental or social objective, enabling a sustainability objective to be achieved
- provided that:
  - the investment does not cause significant harm to any other sustainability objective<sup>4</sup> (DNSH); and that

<sup>3</sup> Commission Delegated Regulation (EU) 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council with technical regulatory standards detailing the content and presentation of the information relating to the principle of 'not causing material harm' and specifying the content, methods and presentation for information on sustainability indicators and negative sustainability impacts, as well as the content and presentation of information on the promotion of environmental or social characteristics and sustainable investment objectives in pre-contractual documents, on websites and in periodic reports.

<sup>4</sup> The DNSH concept is intended to ensure that the pursuit of one sustainability objective does not undermine another sustainability objective. DNSH does not therefore apply to PAIs linked to an issuer's sustainability goal. Argued and documented research will make it possible to conclude that the PAI in question aligns with its sustainability objective.

- the companies in which the investments are made apply good governance practices.

The DNSH dimension is thus an integral part of the definition of a sustainable asset under the SFDR.

BLI refers to the PAIs defined in Annex 1 of the Delegated Regulation to action the DNSH concept at the level of sustainable assets.

In addition, BLI has chosen an environmental and social indicator for the private and sovereign issuer investments listed in Tables 2 and 3 of Annex 1 of the Delegated Regulation.

The methodology for taking PAIs into account at the level of individual investments for the different asset classes is described in the following chapters:

- equities and private issuer bonds (chapter 3.1.)
- bonds from sovereign issuers (chapter 3.2)
- investment funds - multi-management (chapter 3.3.).

### 3.1 Analysis and integration of PAIs (equities and private issuer bonds)

Although most of the indicators to be taken into account and published are defined by the regulation, the analysis methodology is left to the discretion of the management companies. The DNSH concept requires the definition of a framework to make it possible to decide when an issuer's reported indicators are significantly harmful to a sustainability objective.

The indicators listed in Annex 1 of the Delegated Regulation can be grouped into numerical indicators and binary indicators.

In its analysis of the 14 mandatory PAIs applicable to private issuers, BLI distinguishes between 9 numerical indicators and 5 binary indicators, the criteria and methods of analysis of which will also differ depending on their category. BLI has also selected an additional numerical indicator and an additional binary indicator.

<b>Environmental indicators</b>	<b>Type of indicator</b>
<i>Greenhouse gases (GHG)</i>	
1. GHG emissions	numerical
2. Carbon footprint	numerical
3. GHG intensity	numerical
4. Exposure to companies active in the fossil fuel sector	binary
5. Share of non-renewable energy consumption and production	numerical
6. Energy consumption intensity by sector with high climate impact	numerical
<i>Biodiversity</i>	
7. Activities with negative impact on biodiversity-sensitive areas	binary
<i>Water</i>	
8. Discharges into water	numerical
<i>Waste</i>	
9. Ratio of hazardous waste and radioactive waste	numerical

<b>Social indicators</b>	
<b><i>Social and personnel issues</i></b>	
10. Violations of the principles of the UN Global Compact and the OECD Guidelines for multinational companies	binary
11. Lack of compliance processes and mechanisms to monitor compliance with the above principles	binary
12. Unadjusted gender pay gap	numerical
13. Gender diversity in governance bodies	numerical
14. Exposure to controversial weapons	binary
<b>Supplementary indicators</b>	
15. Investments in companies that have not taken initiatives to reduce their carbon emissions	binary
16. Excessive compensation ratio	numerical

### 3.1.1 Treatment of numerical indicators

#### General framework for numerical indicators

For each of the mandatory and additional quantitative indicators selected, BLI has defined thresholds at which it is considered that there is a “significant detriment” to a sustainability objective.

The indicators for each company are considered in relation to all the issuers available in the database used, and BLI calculates the DNSH threshold for each quantitative PAI, above which a value is considered an outlier. To calculate the thresholds, the Fisher-Jenks algorithm is applied, the aim of which is to find the optimum number of classes in a first step, and then to minimize the intra-class variance and maximize the inter-class variance, thus creating homogeneous classes of data.

BLI has set the “Gender diversity in corporate governance bodies” indicator at 33% for all portfolio companies, in line with the corresponding European directive, which is the most ambitious in the world.

#### DNSH Greenhouse Gas Assessment

PAIs 1, 2 and 3<sup>5</sup> in Annex 1 of the Delegated Regulation refer to greenhouse gas emissions.

PAI 1: 4 indicators<sup>6</sup>

- Scope 1 GHG emissions
- Scope 2 GHG emissions
- Scope 3 GHG emissions
- Scope 1+2+3 GHG emissions

PAI 2: Carbon footprint

PAI 3: Carbon intensity

Taken individually, the information content of each of these indicators is limited. Large companies will have high absolute GHG emissions that should be considered in relation to

<sup>5</sup> 1: GHG emission; 2: Carbon footprint; 3: GHG intensity.

<sup>6</sup> The calculation of greenhouse gas emissions is categorised into 3 scopes: Scope 1: direct greenhouse gas emissions; Scope 2: indirect energy-related emissions; Scope 3: other indirect emissions.

their size and turnover. Conversely, small companies may have low absolute emissions but high intensities.

Given these considerations, BLI has decided to combine the three PAIs to assess the DNSH status of GHG emissions. To complement this assessment model, the additional binary PAI 'Investments in companies that have not taken initiatives to reduce their carbon emissions' is also considered.

BLI applies the methodology described in this chapter to evaluate the various quantitative indicators used in the GHG emissions evaluation model: An issuer will thus have passed the test of an Indicator if it is among the top 80% of issuers in its sector and geographic region.

The additional (binary) PAI is based on the issuer's status under the Science-Based Target initiative ('SBTi') and provides additional information for deciding whether the issuer in question passes the DNSH greenhouse gas assessment. Thus, the "Scope 1+2+3 GHG emissions" indicator corresponds to the sum of the 3 GHG emissions indicators.

### **PAI relevance**

BLI has developed a relevance dictionary for each PAI by sector, which requires that

- At least 40% of private issuers must have declared a value; and/or
- The SRI team has validated the materiality of the indicator for the sector in question.

The corresponding matrix can be consulted in Appendix 1.

### **Scoring and DNSH test for numerical indicators**

A proprietary IT tool ("Company ESG Dashboard"), developed within BLI and updated on an ongoing basis, indicates whether an issuer has passed the DNSH test for all quantified indicators, or whether mitigation measures are required (via application of BLI's exclusion policy, an SBTi commitment by the company in question, a qualitative analysis to be carried out and/or a formal commitment to be initiated by BLI...)

#### **3.1.2 Treatment of binary indicators**

The five mandatory binary indicators are examined individually. The information reported by the binary PAIs reflects basic concepts that every company will be required to meet in order to claim no significant harm to any other sustainability objective.

### **Exposure to companies active in the fossil fuel sector**

BLI excludes the following from its investment universe:

- companies listed on the Global Coal Exit List ('GCEL') and
- companies listed on the Global Oil & Gas Exit List ('GOGEL') whose production of hydrocarbons from unconventional deposits and techniques exceeds 20% of their total hydrocarbon production.

For sustainable assets, the framework of exclusions in the area of fossil fuels is further strengthened (see BLI's Sustainable Assets Methodology, [link](#)).

### **Activities with negative impact on biodiversity-sensitive areas**

Companies involved in very severe biodiversity-related controversies are excluded from BLI's sustainable asset investment universe<sup>7</sup>.

### **Violations of the principles of the UN Global Compact and the OECD Guidelines for multinational companies**

BLI uses two indicators to assess an issuer's compliance with this PAI:

- UN Global Compact Compliance and

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<sup>7</sup> Assessment according to the MSCI ESG model



- Human Rights Compliance.

These indicators are derived from the MSCI ESG database and provide a view of the status of an issuer's compliance with international standards. Only issuers that fail these two indicators are excluded from the sustainable assets' universe.

### **Lack of compliance processes and mechanisms to monitor compliance with the above principles**

BLI considers that not having formal policies in place to ensure compliance with the above-mentioned international standards is not a sufficient condition for determining whether an issuer is generating 'significant harm' to a sustainability objective. For this reason, BLI lists companies that do not have policies in this area without defining a specific decision rule.

### **Exposure to controversial weapons**

BLI excludes controversial weapons such as landmines, cluster munitions, depleted uranium, white phosphorous munitions, and chemical and biological weapons from its investment universe.

#### **3.1.3 Special case: Impact bonds**

BLI has developed a methodology for analysing impact bonds (green, social, sustainable bonds, etc.) and categorising the use of the funds granted (financing environmental and/or social projects).

#### **3.1.4 Treatment of missing data**

The relevance of a numerical or binary indicator is defined by a minimum sector/region coverage threshold of 40%. If this threshold is not met, the PAI indicator will not be considered relevant for the company – regardless of the value achieved. If a company does not publish data on an indicator but the 'market' coverage is above 40%, then the company will be contacted to publish the PAI in order to mitigate it.

#### **3.1.5 Decision rules**

A company is considered not to be significantly harmful to a sustainability objective if it passes the DNSH test for the numerical indicators and the DNSH test for the binary indicators.

### **3.2 Bonds from sovereign issuers**

BLI's framework for sovereign and parastatal issuers echoes that applied to private issuers. The DNSH concept also requires sovereign issuers to decide when an issuer's reported indicators are significantly harmful to a sustainability objective.

Annex 1 of the Delegated Regulation defines two indicators to be analysed for sovereign issuers. BLI has selected one additional numerical and one additional binary indicator.

<b>Mandatory indicators</b>	<b>Type of indicator</b>
1. GHG emissions by GDP	numerical
2. EU Social Violation	binary
Supplementary indicators	
3. Freedom of expression	numerical
4. EU Green Bond Standard <sup>8</sup>	binary

<sup>8</sup> BLI has decided to apply this indicator only after the regulation on the Green Bond Standard comes into force. No date has yet been set for the regulation to come into force.

### 3.2.1 Methodology used for numerical indicators

BLI has defined the thresholds for the numerical indicator at which it is considered to have reached 'significant harm' status.

In order to treat sovereign issuers fairly, each is compared to its peers (developed countries/emerging countries). BLI sets the DNSH threshold for the numerical indicator at the 5th quintile of peer values. An issuer will thus have passed the DNSH test of a PAI if it is among the top 80% of issuers in its category.

The methodology used for the special case of impact bonds from sovereign issuers is identical to that used for impact bonds from private issuers (see chapter 3.1.3.).

### 3.2.2 Methodology used for binary indicators

Issuers involved in violations of social rights and/or freedom of expression are excluded from the universe of sustainable assets.

### 3.2.3 Treatment of missing data

The methodology used for the treatment of missing data for sovereign issuers is identical to that used for private issuers (see chapter 3.1.4.).

### 3.2.4 Decision rules

The decision rules used in relation to sovereign issuers are identical to those implemented for private issuers (see chapter 3.1.5.).

## 3.3 Target investment funds

In cases of investment in target investment funds, BLI refers to the definition of DNSH applied within the target investment funds, as described in the Sustainable Assets Methodology document ([link](#)).

## 4 Consideration of PAIs at portfolio level

Although the SFDR requires a description of how PAIs are considered at portfolio level, it does not require the DNSH concept to be taken into account. BLI interprets the purpose of considering PAIs at portfolio level as enabling portfolio managers to make informed investment decisions.

BLI's tools in this area allow portfolio managers to:

- know the status of PAIs at the portfolio level
- simulate the state of the PAIs in the event of changes in the portfolio.

In order to judge the status of the portfolios' PAIs, BLI uses the DNSH thresholds described above (according to sector and region). Because the DNSH thresholds differ by region and sector, data have to be normalised to make them comparable.

The calculations performed are:

- determination of the 'deviation from the DNSH threshold' (in % of the DNSH threshold)<sup>9</sup>
- aggregation of the values in proportion to the weighting of the securities in the portfolio.

The data are aggregated in a dashboard that shows the status of the PAIs at portfolio level and allows simulations to be performed for the portfolio if new positions are acquired or reallocations made.

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<sup>9</sup> For example, a company with a PAI value of 5 versus a DNSH threshold of 10 has a deviation from the DNSH threshold of 50% whereas a company with a PAI value of 15 has a deviation from the DNSH threshold of 150%.

This approach is implemented for any type of portfolio for which BLI has declared in the appendices to the prospectus of the Product that PAIs are taken into account.

## 5 Monitoring PAIs at BLI entity level

Since BLI's investment strategies are managed according to a bottom-up approach, the aggregate characteristics of the portfolios are the result of individual management decisions. Accordingly, the definition of a binding framework for PAIs at the entity level is not relevant. Instead, the methodology adopted consists of aggregating the data from the portfolios of the Products concerned by the regulation (SFDR Articles 8 and 9). BLI ensures that the status of the PAIs is monitored through their systematic inclusion in the Products classified under SFDR Articles 8 and 9 where the portfolio is managed by BLI.

In the case of investment funds for which BLI acts as a management company or as an alternative investment fund manager but whose portfolio management is entrusted to a third party, the values of the PAIs are reported by the delegated managers.

At the management company level, the PAI data will be integrated into the Portfolio Management System (PMS) and monitored on the basis of:

- quarterly overviews
- reporting at the entity level in two sections, namely for portfolios managed by BLI and for those for which BLI is the delegated management company.

## 6 Review and update of the Methodology

The Methodology will be amended to reflect eventual changes in the methodology for taking into account principal adverse impacts, organisational changes, or legislative and regulatory developments concerning risk management. Irrespective of these particular circumstances, it will be reviewed at least annually.

## 7 Legal information

The purpose of this document is not to advertise or promote one or more collective investment scheme-type financial products. This document therefore does not represent an advertising communication within the meaning of Regulation (EU) 2019/1156 of the European Parliament and of the Council of 20 June 2019 to facilitate the cross-border distribution of undertakings for collective investment and amending Regulations (EU) No 345/2013, (EU) No 346/2013 and (EU) No 1286/2014.

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## Appendix 1

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