## **NLCS 2020 – Introduction**

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## 1. Introduction

This file presents the high-level objectives of the study and provides directions to fill the two surveys. As such, it is intended to be complementary to the log files, NLCS\_2020\_LogFile\_A and NLCS\_2020\_LogFile\_B, that detail the technical specifications for their corresponding surveys.

# 1.1. NLCS 2020 objectives

The Non-Life Underwriting Risk Comparative Study 2020 aims for a fair evaluation of Non-Life Underwriting Risk within Internal Models on a European Level.

This overall objective is supported by:

- Focus on the evaluation of internal model outputs/results: IMs are historically rich in methodologies and modelling approaches. In order to avoid going into details of the parameterisation information and the underlying data, the NLCS 2020 therefore mainly focuses on Internal Model (IM) outputs/results to enable a technically sound framework independent of methodologies or modelling granularities.
- <u>Consistency</u>: The design of the NLCS 2020 requires consistency within<sup>1</sup> and across<sup>2</sup> NLCS submissions (log file compliance) while necessitating consistency to:
  - o IM (capital) information of actual annual submissions<sup>3</sup>
  - o The survey of the Diversification Project Group (DivPG)<sup>4</sup>.
- <u>NLCS 2020 priorities:</u> The exercise has selected priority topics in order to identify dominating factors (e.g. in the modelled risk profile, business mix or modelling choices, where applicable).
- Assessment of the development of IM results over time: The NLCS 2020 aims to understand relative developments over time<sup>5</sup>. This will establish a shared points of reference (topic, granularity, paradigms) on a European level<sup>6</sup>.

# 1.2. NLCS 2020 priorities

In order to achieve the objectives of the NLCS 2020, a number of priorities were selected. A high proportion of them is derived from the previous NLCS edition and takes into account the lessons learned and the feedback of Stakeholder Events. Highlights of specific priorities are:

### - Data, communication and quality control:

- O Deviation reporting in the survey: IMs can be very different with respect to a number of factors (e.g. the risks modelled, the methodologies used). The survey therefore puts a lot of efforts in providing the opportunity to communicate deviations from the expectations of the survey and allows in many occasions the reporting of differences.
- <u>Validation checks:</u> Similar to QRT reporting the survey projects its expectations towards data and submission consistency.
- Enhanced acceptance process: Acceptance is executed in a staged process.
  - Participants file and submit survey to National Contact Points

<sup>&</sup>lt;sup>1</sup> E.g. consistent information over different granularity levels

<sup>&</sup>lt;sup>2</sup> E.g. information between YE 2020 and YE 2019

<sup>&</sup>lt;sup>3</sup> Regular supervisory reporting towards National Competent Authorities (NCAs)

<sup>&</sup>lt;sup>4</sup> The DivPG survey is developed in step with the NLCS

<sup>&</sup>lt;sup>5</sup> E.g. IM development, business model and market in order to provide a broad overview on general trends and its breakdown into peer groups

<sup>&</sup>lt;sup>6</sup> Capital requirements under Solvency II should remain over time reflective of the risks to which undertakings are exposed to, and ensure that solvency is maintained to guarantee an appropriate level of protection for policyholders and not weakened over time. Model drift is considered to be the risk that capital requirements calculated using an IM develop in a way which over time may misrepresent the actual risk profile. Changes in the modelled risk profile itself are not necessarily attributable to model drift.

- NCAs check for consistency with (local) reporting at national level and submit to NLCS PG
- Central acceptance carried out by NLCS PG
- O&A Process: The NLCS 2020 has reinforced the Questions and Answers (Q&A) process in the run up of the exercise to improve communication channels between NLCS expectations and undertakings' submission of data. The survey has an inherent expectation on nomenclature as well as the nature of qualitative and quantitative information provided. In case your undertaking is not able to comply with these expectations, please liaise with your NCA's national contact point and highlight concisely the issue and its impact on the comparability of the exercise. Please note that unwillingness of undertakings to generate outputs which are generally in line with the design and the assumptions of their internal model can lead to a partial or full exclusion from the exercise. For details please liaise with your local contact point via the Q&A process. The NLCS PG reserves the right to communicate undertaking rejections/coverage in a public report (e.g. rejected because of oversimplification not within the remit of the NLCS 2020).
- **Diversification:** The NLCS 2020 aims to understand aggregation consistently with respect to its quantitative dynamic. For this endeavour, it is necessary to understand the standalone risk from an internal view of risk (Internal Lines of Business (IntLoB) and Catastrophe Perils (Cat)) perspective as well as aggregation dynamics underlying it in order to arrive at the overall Non-Life underwriting risk (correlations and scenarios). In order to compare fairly diversification benefits, the NLCS 2020 uses the Solvency 2 Lines of Business (S2LoB) granularity as starting point in order to arrive at the Non-Life underwriting Risk. The NLCS 2020 PG collaborates very closely with the Diversification PG. Therefore please ensure that information provided in both studies is consistent. It is in particular expected that the Non-Life underwriting risk capital reconciles in both studies.
- **Business mix and Focus LoBs:** With respect to standalone risk, the NLCS 2020 focusses on a selection of S2LoBs. For these S2LoBs, the survey collects for the underlying IntLoBs additional qualitative and quantitative information in order to understand the modelled risk profile in the context of the actual business development (e.g. bodily injury claims, risk emergence, business mix). The survey has been designed to accommodate and capture the following focus S2LoBs for direct and (proportional) indirect business<sup>7</sup>:
  - o MTPL: Motor vehicle liability insurance (S2Lob number 4 & 16 in Delegated Acts)
  - o GTPL: General liability insurance(S2Lob number 8 & 20 in Delegated Acts)
  - OtherM: Other motor insurance (S2Lob number 5 & 17 in Delegated Acts)
  - o FIRE: Fire and other damage to property insurance (S2Lob number 7 & 19 in Delegated Acts)
  - o C&S: Credit and suretyship insurance (S2Lob number 9 & 21 in Delegated Acts)
- **Time series:** IMs have the ability to be and stay with their modelled risk profile very close to the actual risk profile. A time series analysis is therefore a key area for this edition. The time horizon for the NLCS 2020 is set to 5 years from submission Year End (YE) 2016 to YE 2020. Therefore, reporting needs to be consistent and changes in numbers need to be understood and ideally attributable to portfolio changes (e.g. organic growth), recognition of changes in modelled risk profile (e.g. reparameterisation), model changes (e.g. introduction of additional risk drivers) or a reflection of inorganic growth (e.g. Mergers&acquisitions, portfolio transfer).

The NLCS 2020 PG has reached out to stakeholders to provide feedback following an initial stakeholder event on the implementation of the survey. The PG has taken into account the received feedback and has elaborated the drafting of the log file. Furthermore the template was adjusted to reflect feedback points to lower the overall reporting burden and to improve clarity and consistency.

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 $<sup>^7</sup>$  Depending on IM structure also information on annuities is required refereeing to S2LoB 33 & 34 delegated Acts

## 2. Submission

## 2.1. Timing and Process

The selected undertakings have to submit surveys A and B to their National Contact Point at the local NCA before September 15<sup>th</sup> 2021.

The NLCS PG recommends participants to submit a first batch e.g. for YE2020 for survey A and B well before the deadline so that potential reworkings do not create unnecessary additional submissions for the other years.

#### Please note that

- the NLCS employs a staged quality control and acceptance process so that the submission acceptance or rejection may be triggered either by the local NCA or the NLCS PG.
- The NLCS PG reserves the right to communicate in a public report if individual submissions or the entirety of submissions were rejected due to quality or quantity concerns of the submission
- questions regarding submission can be asked via the Q&A process.

# 2.2. Number of submission and naming convention

Overall, the NLCS 2020 requires five separate (annual) submissions from YE2016 to YE2020.

### 2.2.1. Naming convention:

Please use the following Naming convention and separate by " ":

- A for "Survey A" and B for "Survey B"
- YE2020 for the latest submission to YE2016 for the first Solvency 2 Annual Submission
- Two digit count of the number of submissions starting from "01" for the first submission
- Date of submission to NCA for the NLCS 2020: MMDD
- Name of the undertaking, local code or LEI Code
- ID Survey B:

CnS: For the Survey B focused on Credit and Suretyship
 Geography: For the Survey B not focused on Credit and Suretyship

in line with the reporting under Survey A

For the second submission of Survey A sent on the 2<sup>nd</sup> of June for YE 2020 to the local NCA of undertaking "ExampleUT" this requires the following name:

- A\_YE2020\_02\_0602\_ExampleUT

For the first submission of Survey B sent on the  $3^{rd}$  of June for YE 2018 to the local NCA of undertaking "UT" for Germany (not focused on Credit and Suretyship) this requires the following name:

B\_YE2018\_01\_0603\_UT\_Germany

For the first submission of Survey B sent on the 6<sup>th</sup> of June for YE 2019 to the local NCA of undertaking "UT" focused on Credit and Suretyship this requires the following name:

- B YE2019 01 0606 UT CnS

### 2.2.2. Survey A: Tab Overview:

The survey collects qualitative and quantitative information focussing on individual structured data point collections:

• General tabs:

o GEN VAL: General validation checks

GEN\_INF: General information on submissionGEN\_SEG: General information on segmentation

o GEN\_COM: General comment section

• Quantitative tabs:

O QT\_NL: Quantitative information on overall Non-Life underwriting risk

QT\_RR: Quantitative information on reserve risk
 QT PR: Quantitative information on premium risk

o QT QL CAT: Quantitative and qualitative information on Catastrophe risk

o QT\_CS: Quantitative information on credit and suretyship

o QT\_CS\_EX: Quantitative information on credit and suretyship exposure

QT\_COR\_1: Gross linear output correlation of SCR distribution (IntLoB & Cat Peril)
 OT COR 2: Net linear output correlation of SCR distribution (IntLoB & Cat Peril)

• Qualitative tabs

QL\_RR: Qualitative information on reserve risk
 QL\_PR: Qualitative information on premium risk

o QL CS: Qualitative information on credit and suretyship

### 2.2.3. Survey A: Completion and exceptions

Completions exceptions for survey A are collected in the following tables:

Submission year	General tabs: GEN_VAL, GEN_INF, GEN_SEG, GEN_COM  Quant. tabs: QT_NL, QT_RR, QT_PR  Qual tabs: QL_PR, QL_RR	Quant.tabs: QT_QL_CAT, QT_CORR_1, QT_CORR_2	Quant.tabs: QT_CS,QT_CS_EX Qualtab: QL_CS
YE2020	Yes	Yes	Proportionality (*)
YE2019	Yes	Yes	Proportionality (*)
YE2018	Yes	Yes	Proportionality (*)
YE2017	Yes	No	No
YE2016	Yes	No	No

<sup>(\*)</sup> Proportionality: For the filing of the dedicated Credit and Suretyship tabs of the NLCS the following applies:

- The IM covers, at least partially, the S2LoBs 9, 21 and 28.
- The gross earned premium for credit and suretyship at YE19 represents at least 10% of the total gross earned premium at YE19 or the gross earned premium for credit and suretyship at YE19 is greater than 100 million of Euros.

### 2.2.4. Survey B: Tab Overview:

The survey collects qualitative and quantitative information focussing on scenario data

• General tabs:

o GEN\_VAL: General validation checks

o GEN INF: General information on submission

• Quantitative tabs:

o QT\_STAND\_GROSS\_: Standardised Gross Simulation data

QT\_AY\_GROSS\_:
 QT\_UY\_GROSS\_:
 Gross Simulation Data from Per Accident Year models
 Gross Simulation Data from Per Underwriting Year models

o QT\_STAND\_NET\_: Standardised Net Simulation data

QT\_AY\_NET\_:
 QT\_UY\_NET\_:
 QT\_CS\_:
 Net Simulation Data from Per Accident Year models
 Net Simulation Data from Per Underwriting Year models
 Simulation Data for Credit & Suretyship Premium risk

• Qualitative tabs:

QL\_RP\_: Qualitative Information Drivers of correlation
 QL\_MOD\_: Qualitative Information Dependency modelling

#### 2.2.5. Survey B: Completion and exceptions

The data is required for 3 years (YE2018, YE2019 and YE2020).

Simulation data delivered should follow the dependency structure used in the IM. In practice, the sum over the marginal distribution across the different subrisks, Lines of Business or Perils should reconcile the total non-life underwriting risk on a sim by sim basis. This implies that the marginal distributions should be pathwise consistent across submissions and columns (please refer to consistency (1.1)).

Submissions need to be made separate by regions across the granularities of Premium Risk and Reserve risk (at least). The available regions are the ones defined for the Risk Location in the Segmentation tab of Survey A. The geographical segmentation should resemble the smallest available denominator between Premium, Reserve and Cat Risk. The mapping to this granularity needs to be documented in survey A, since survey A may have a differing granularity without considering the consistency across Premium, Reserve and Cat Risk. Furthermore, a separate file is expected where the Credit and Suretyship information (QT\_CS\_) is filled in. **The total number of completed templates therefore equals the number of modelled geographies plus one (if credit and suretyship is in the portfolio).** 

# 3. Q&A process

The NLCS 2020 gives guidance and instruction in the log files, which already anticipates questions raised by different stakeholders. Further clarification on the different topics or items can be asked for via the Questions and Answers (Q&A) process which will be launched with the publication of the survey to the undertakings.

The outcome of the Q&A process will be used to help undertakings (UTs) interpreting the survey and the specifications in a correct and consistent manner. In addition, to ease the participation in the exercise, this process aims at ensuring comparability of the results as well as smoothing the national and central validation processes. The Q&A process is as follows:

UT addresses question to national contact point

NCA collects questions from national participants. NCA either answers the question on its own or forwards it to the PG if it is of general relevance

If question is of general relevance: PG answers questions and reviews answers, then answers are provided to the local NCA

EIOPA provides updated
/ corrected
templates/log-files
or FAQ

The involvement of the PG is necessary if the question is of general relevance;

- A question on survey and exercise instructions which can have a major impact on final results
- Gap or inconsistency in the Technical Specifications
- Potential mistakes in the template

All other questions, especially undertaking specific questions, should directly be answered by the local NCA and need not to be forwarded to the PG. This is especially relevant if knowledge of the internal model of an UT or the local market is needed to answer the questions.

For the collection of the questions, which are of general relevance, an Excel-file is provided. You find the file, the list of national contact points and updated log-files at the EIOPA website (<a href="https://www.eiopa.europa.eu/content/non-life-underwriting-risk-comparative-study-internal-models\_en">https://www.eiopa.europa.eu/content/non-life-underwriting-risk-comparative-study-internal-models\_en</a>). Because this process may treat confidential information of the internal model or exposures, it will be based on anonymised data.

The questions forwarded to the NLCS will be reviewed bi-weekly and the answers will be provided afterwards.

# 4. NLCS Approach

The NLCS 2020 is confronted with a fundamental challenge as the fair evaluation of its objective needs to balance the representation of the internal view of risk<sup>8</sup> with the need for standardisation of a comparative study.

In order to arrive at a fair European wide evaluation of IM results, the NLCS PG had to make numerous design decisions during its design phase.

The following sections describe these general design patterns and are very useful to avoid misunderstandings when going through the detailed information by tab, table and cell in the respective Log Files of "Survey A" and "Survey B".

## 4.1. Filing the survey

Overall the NLCS PG expects compliance with the template, which includes accurate deviation reporting in clear, concise and forthcoming manner in order to avoid misunderstandings, which could result in unnecessary touchpoints between NCAs and participants. In concrete terms, this means that the NLCS PG expected that participants put significant effort in the completion of the surveys.

#### 4.1.1. General approach

The NLCS 2020 collects quantitative information on Non Life Underwriting Risk for a number of predefined granularities gross and net of reinsurance<sup>9</sup>, as well as qualitative information.

The analysis of the submissions will combine this information and it is therefore key that information provided is sufficient to understand the level and development of the IM over the five year period of the analysis (E.g. perimeter, capital intensity, exposure, model development, business mix, profitability, business outlook).

All IM figures must be consistent with the standard outputs/results of the IM unless stated differently. As IMs may differ in the way risks are modelled and recognised, undertakings are not requested to model risks which are not recognised in their IM (E.g. IMs not modelling Cat Risk, Annuities or Risk Emergence do not need to separate out these effects and can leave the respective cells empty).

To enhance comparability across the European insurance sector, certain data will be asked which is not used in the own internal model reporting as an undertaking currently has it set up, but which can be derived from the internal model in a reasonable manner without adding additional assumptions, which would distort the inner (calculation) logic of the model. For instance, an undertaking modelling immediately net reserve risk based on net claims triangles would not have to deliver gross reserve risk data. Similarly are only risks to be reported which are already part of the model (annuities, risk emergence, etc.). However Solvency 2 LoB output should be provided using the existing internal aggregating mechanism and existing dependency modelling. This similarly applies to the general layout of the survey including qualitative questions. For example it is necessary to provide information on the geographical breakdown of LoBs, or the currency information even if it is from an IM perspective not explicitly modelled as long as information is available.

Please contact your local contact point if you have any questions related to this topic.

<sup>&</sup>lt;sup>8</sup> IMs enjoy within the Solvency 2 framework a high degree of freedom in the way risk is modelled

<sup>&</sup>lt;sup>9</sup> Co-Insurance on direct business: For leading insurance undertakings the full proportion of business is understood to be reported as gross direct business, whereby the proportion shared with non-leading insurers is considered to be treated as outward reinsurance.

Never the less undertakings are expected to follow the granularities specified and to allocate adequately in line with the internal dynamic and aggregation mechanisms employed by the IM.

Adjustments, approximations or simplification that are not part of the IM methodology must be highlighted and justified in a concise and forthcoming way as close to where they occur.

The NLCS assumes the following guidance is followed:

Topic	Description	
Filing Rules, layout and type of cells	Only the indicated cells need to be filled. Values have to use valid values. Please work left to right, top to bottomthrough the tabs.	
	Use drop down menus, quantitative & qualitative values where applicable. The type of cell can be identified by their colour code.	
	Do not touch the layout of the survey (e.g. insert, delete or hide cells) as it may temper with the supporting functionality or the analysis.	
Empty cells vs. 0	Empty cells are understood as not available. 0 will be interpreted as a number (e.g. no modelling of annuities means that cells are not filled).	
Reporting currency EUR	EUR is the reporting currency of the NLCS. Do not use multiples of EUR (like kEUR or MEUR).  If your internal models values are expressed foreign currencies, they need to be converted using the exchange rate at reference date.	
Sign	In the context of profit and loss distributions positive values are considered a loss / negative values are considered a profit. Therefore the 99.5 Percentile corresponds to the SCR.	
Last submission	Some questions are related to changes with respect to the last submission. Last submission is intended as the submission at previous reporting year.	
	For submissions at YE2016, these questions can be skipped since YE2016 is the starting point of the NLCS series.	

Overall the following principles apply.

### 4.1.2. Granularities

The NLCS uses the following main granularities

Risks & Granularities	Description
Premium & Reserve Risk	Premium and Reserve Risk data including implicit and explicit Cat
Catastrophe Risk (Cat)	Catastrophe Risk data
Premium & Reserve Risk	Premium and Reserve Risk data excluding explicit Cat
(Excluding explicit Cat)	
Premium Risk	The premium risk distribution should be such that its mean reflects an expected profit or loss including the movement of Premium Provisions over the year.  Results should generally exclude explicit Cat
Reserve Risk	The Reserve Risk distribution should be such that its mean is approximately zero, as there is no expected profit in a Best Estimate.  Results should generally exclude explicit Cat

#### Within the Non-Life underwriting Risk the following three segmentations are requested

- **Solvency 2 Lines of Business (S2LoB)**: As defined in Annex II of the Delegated Regulation, based on lines of business (LoBs) defined in Annex I.
- Internal Model Lines of Business (IntLoB): Is understood as the most granular level from the internal model direct outputs at which the probability distribution function of the losses and SCR are available. IntLoBs are expected to be used for internal reporting as well as the management of the capital positions by the undertaking. IntLoBs typically are close to the parameterisation level. They should enable an understanding of the internal model specific behaviour.
- **Cat Perils:** Understood to be used for internal reporting as well as the management of the capital positions by the undertaking.

#### 4.1.3. Qualitative information and comments

For the NLCS qualitative information is equally important to quantitative information as it provide perspective to the quantitative values in order to enable a fair comparison.

The NLCS uses open and closed questions.

Closed questions come with a predefined selection of responses. The options take into account supervisory experience and industry feedback received and in most cases undertakings should be able to position them self with respect to the available options on the basis of "good enough". All closed questions come with an open question field next to it, which allows to provide perspective to the options selected. If additional information is required to judge fairly it is necessary to use these fields in a concise way. When in a closed field any version of "other" is selected it is mandatory to provide a comment in the open field.

In case you used a qualitative response, please use the exact same response for the next submission if nothing has changed. Consistency over time:

Whenever adjustments are necessary to fairly judge your risk profile it is mandatory to share this with the NLCS use the designated (comment) sections/cells as close to the source as possible.

In open qualitative responses please use the following wording. If you refer to your

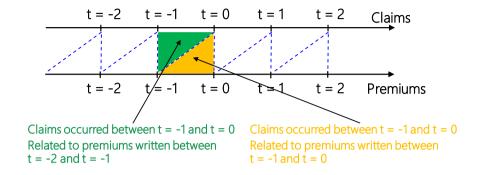
- undertaking pleaseuse "we"
- group please use "our group"
- local NCA use "local supervisor"
- group supervisor "our group supervisor"

Please ensure that the explicit name of your undertaking/group does not appear in the qualitative /quantitative (if applicable) answers unless explicitly requested otherwise by the survey.

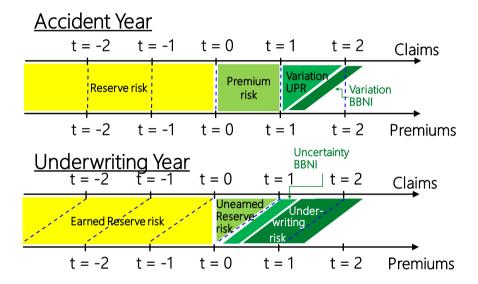
#### 4.1.4. Accident years vs Underwriting years

NLCS is aware that different modelling approaches exist across the EU for Non-Life internal models. Solvency 2 allows for modelling freedom which captures better the risk profile of the undertaking. However, these modelling differences make horizontal comparisons more difficult. For instance, reserve risk is typically seen as the uncertainty related to past years and premium risk as the uncertainty of future years. But some undertakings model in function of years determined by when a claim occurred (i.c. accident years) and other model in function of when the policy was underwritten (i.c. underwriting years). This creates therefore a natural difference in the definitions for premium and reserve risk for both model types since they depend on past or future accident or underwriting years.

To this end, we would like to collect non-life underwriting risk information in line with standardised definitions as to assure the comparability of the data across model types. We use the graph below were we split between the moments claims occurred and the moment the premiums are written:



Based on this clarification, we would now want to define certain subrisks as followed. It should be noted that this graph is representative for a one-year policy. However, the concepts generalise off course to multi-year policies.



- Bound But Not Incepted (BBNI): Future Premiums which lie within contract boundaries, but which were not yet written as well as the claims, expenses and commissions related to these premiums
- Underwriting year models:
  - Earned reserve risk: the risk around the balance sheet earned reserves or the uncertainty related to earned premium and the related claims, expenses and commissions which have already occurred in the past
  - O Unearned reserve risk (including uncertainty of the BBNI): the risk around the balance sheet unearned reserves or the uncertainty related .to Unearned or BBNI premiums and the related claims, expenses and commissions which will occur in the future. For multi-year contracts, the BBNI should considered the full length of the contract as modelled in the internal model.
  - Underwriting risk: the risk around the proposed underwriting year or the uncertainty related to premiums beyond contract boundaries (typically 1 year premium volume) and the related claims, expenses and commissions which will occur in the future
- Accident year models:
  - o Reserve risk: the risk related to the claims reserves or the uncertainty related to earned premium and the related claims which have already occurred in the past

- o Premium risk: the risk related to premiums earned, claims occurred, expenses and commissions during the first future accident year.
- O Variation of the Unearned Premium Reserve: the difference between the unearned premium reserve at t = 1 and at t = 0. The premiums written in the first projection year are not all earned by the end of the year. The unearned premiums at t = 1 will give rise to claims, expenses and commissions in the year after. This uncertainty in the second year is called the variation of the Unearned Premium Reserve.
- O Variation of the BBNI: the difference between the BBNI at t = 1 and at t = 0. The BBNI bound at the end of the first year will give rise to premiums written in the second and following years and related claims, expenses and commissions. The uncertainty related to these bound premiums, claims and expenses at t = 1 is the variation of the BBNI. For multi-year contracts, the BBNI should considered the full length of the contract as modelled in the internal model.

For survey B this results in the following data requirement concerning simulation data,:

Accident years models for the non-catastrophe risks split between:

- Reserve risk
- Premium risk including the variation of the unearned premium reserve and the variation of the BBNI

Such a modelling approach is typically seen by insurers specializing in Retail business.

For underwriting year models, a split is asked between:

- Earned reserve risk
- Unearned reserve risk including the uncertainty surrounding the BBNI
- Underwriting risk

This methodology is mostly seen by reinsurers. For insurers specializing in commercial or industrial business both accident and underwriting year models have been observed.

Irrespective of certain market practices the undertaking should fill in the survey according to its own model set-up.

#### 4.1.5. Validation Checks

Validation checks are intended to streamline the communication between participants, NCAs and NLCS PG. The NLCS PG expects all validation checks either satisfied or at least double checked and commented as they project an expectation towards the undertakings filing the survey. Undertakings remain responsible with respect to consistency,

Validation checks are classified are designed in two categories:

- Warnings: They highlight unusual survey filing that may indicate a mistake. Please check and comment on why the submission is still accurate.
- Errors: They highlight a high probability that the filing is incorrect. Please check and comment on why the submission is still accurate.

#### 4.1.5.1. Intra submission

There are three kinds of validation checks:

- Completion: Cells are expected to be completed (consistently)...
- Monotonicity: Cell are expected to be greater or equal than another one.
- Consistency: The controlled cell is expected to have a certain type of value, e.g. positive.

If the control is satisfied/failed, then it will be accounted in the corresponding categories. Overall results are grouped for each cell and then aggregated in a dedicated tab.

Satisfying all validation checks does not guarantee the acceptance of the submission but the experience of the QRTs and other exercises indicates that validation-checks help to increase the quality of submissions, streamlines the conversation between stakeholders and decrease the numbers of resubmissions.

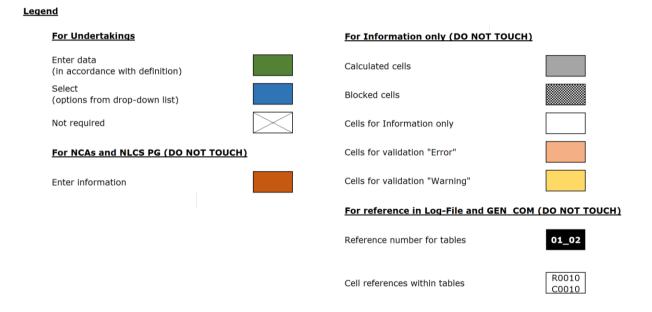
#### 4.1.5.2. Cross submission

These validations check the consistency between survey A, survey B and the survey of the study on diversification.

# 4.2. Survey legend

Please enter data in the template. Never add or delete cells it may result in a corruption of the submission.

The following colour code applies in the survey:



### 4.3. Abbreviations

The NLCS Log Files and Templates may use the following abbreviations.

AEP	The Aggregate Exceedance Probability (AEP) is the probability that the associated loss level will be exceeded by the aggregated losses in a given year, and is used when the insurance program is written on an aggregate basis.
AY	Accident Year
BBNI	Bound But Not Incepted, alternative definition to written but not (yet) incepted (WBNI): Businesses that the undertaking is committed to at the reporting date but for which (re)insurance cover has not (yet) commenced.
BEofIM	The Best Estimate liability used in the IM. Usually, it is the mean of the non-centred reserve risk distribution. BEofIM is also used as weighting factors to allocate IntLoBs in the filtering process.

B/I	Bodily injury claim: Claim as a result of a physical harm to one's person. Depending on the legal environment and the social security system in the market it can contain the following:  1. Costs of medical care  2. Detriment due to loss or diminishment of earning capacity  3. Impairment of economic progress  4. Increase of needs  5. In the case of death: Funeral expenses and loss of right to support  6. Non-pecuniary losses (compensation for pain and suffering  B/I claims resp. annuity are awarded before court decision (Out of settlement), by court or a government based compensation scheme (list), but also other types are possible
Cat	Catastrophe / Catastrophic
CoV	Coefficient of Variation (ratio of standard deviation over mean)
CTRY	Country
C&S	Credit and Suretyship
EEA	European Economic Area
EEP	Expected Earned Premiums
ENID	Events notin data
EUR	Euro currency
FIRE	Fire and Property Damage
FoE	FreedomofEstablishment
FoS	Freedomof Services
GRP	Group (of UTs)
GTPL	General Third Party Liability
GWP	Gross Written Premium
IBNR	Incurred But Not Reported
IM	Internal Model
IntLoBs	Internal LoBs are understood to be used for internal reporting as well as the management of the capital positions by the undertaking. They typically are close to the parameterisation level. Therefore, qualitative and quantitative information is collected on this level in order to understand the IM specific behaviour. In order to map the information on this level, UTs mapped the IntLoBs to the S2LoBs.
LoB	Line of Business
M&A	Mergers and Acquisitions
MMCat	Man-Made Catastrophe
MTPL	Motor Third Party Liability
NatCat	Natural Catastrophe
NCA	National Competent Authority
NLCS	Non-Life Comparative Study
NL UW	Non-Life Underwriting
ОЕР	The Occurrence Exceedance Probability (OEP) is the probability that the associated loss level will be exceeded by any event in a given year. It is used when the insurance program is written on an occurrence basis, or when the loss associated with one event is important.
OtherM	Other Motor
PG	Project Group of NLCS

PPO	Periodic Payment Order (PPO) is a compensation court award with an annuity characteristic
PR	Premium Risk
RBNS	Reported But Not Settled
RR	Reserve Risk
S2	Solvency 2
S2LoBs	Solvency 2 LoBs are used for SF reporting under Solvency 2. Unless stated differently, quantitative analyses of this report are based on this granularity as it achieves a shared granularity within the IM UT sample as well as to SF UTs. Qualitative information from IntLoBs is used in occasions to understand the dynamics of S2LoBs. No qualitative information is collected on this level. For the purpose of the NLCS, the PG does not differentiate between direct and proportional indirect business.
SCR	Solvency Capital Requirement
SD	Standard Deviation
SF	Standard Formula
SL	Stop-Loss (reinsurance treaty)
ULAE	Unallocated Loss Adjustment Expense
Uplift	Distance from 99.5th percentile to mean of the non-centred loss distribution
UT	Undertaking
USP	Undertaking-specific parameters
UY	Underwriting Year
XL	Excess of Loss (reinsurance treaty)
Year2Year	Year to Year
YE	Year End