

NLCS 2020 Stakeholder Meeting Organization of the Day

European wide Non-Life Underwriting Risk Comparative Study in Internal Models

Presenter: **Christoph Hamer NLCS 2020 Chair**

Date: **5 November 2020**

Format: **WebEx**

Agenda

Stakeholders Session (10-12 CET)

Item	Time	Topic	By
1	10:00 - 10:15	Introduction	Patrick Hoedjes, <i>Head of Oversight Department, EIOPA</i>
2	10:15 - 11:30	Presentation of the NLCS and its process	Christoph Hamer, <i>NLCS Project Chair</i>
3	11:30 - 12:00	Q&A	All

Technical Session for NLCS participants only (13-16 CET)

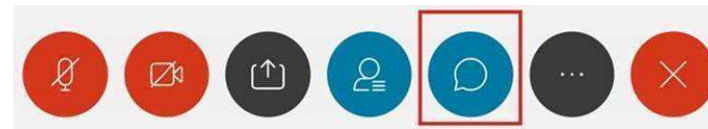
Item	Time	Topic	By
1	13:00 - 15:00	Presentation of the NLCS data request	Christoph Hamer, <i>NLCS Project Chair</i> Frank Van Steen, <i>NLCS PG Member</i>
2	15:00 - 16:00	Q&A	All

Effective Participation



WebEx Etiquette:

- **Audio:** When dialing-in with a phone, please use the “Call Me” functionality. You can mute and unmute “*6” when using a phone.
- **Chat function for participation:** Raise questions via the Chat Function **either public** or to **Henry Daha (EIOPA)**. We will aim to address questions on a regular basis during the event.



NLCS 2020 Stakeholder Meeting Presentation

European wide Non-Life Underwriting Risk Comparative Study in Internal Models

Presenter: **Christoph Hamer NLCS 2020 Chair**

Date: **5 November 2020**

Reliance & limitation

The purpose of this event is to share the objectives and draft documents of the NLCS 2020 and its process. Any shared documents and/or information as well as this presentation and/or information provided during the event should be considered as indicative only (work in progress) and does not define any engagement from the NLCS PG group or any supervisory authority, including EIOPA. Therefore any information shared today may be subject to change.

After the event, NLCS 2020 participants are invited to provide feedback to the NLCS PG via national contact points until (12.11.2020). This feedback should be constructive, specific, and concise in order to improve the NLCS 2020 in the completion of its objectives and priorities. The NLCS PG will examine provided feedback carefully but reserves the right to integrate it or not in the ultimate NLCS 2020 package. The NLCS PG will not provide individual answers to the provided feedback at this point.

Objective of today



Put Internal Models (IMs) into Perspective

The NLCS 2020 PG reaches out with today's event to:

- Inform stakeholders on the exercise, its ambition and priorities as early on as possible.
- Provide an idea to participants on what to expect and
- Share and manage expectations on all sides.

Part 1:

NLCS 2020 Objectives

Part 2:

NLCS 2020 Priorities

Part 3:

NLCS 2020 Organisation

Part 4:

Discussion & Feedback



Part 1:

NLCS 2020 Objectives



Part 1: NLCS 2020 Objectives Evaluation of Internal Models

Objective: The NLCS 2020 aims for a fair evaluation of Non-Life Underwriting Risk within IMs on a European Level.

Approach: The NLCS 2020 analysis is designed to challenge the individual narrative of Non-Life Underwriting Risk by linking risk capital positions with additional quantitative and qualitative information as well as their diversification contributions. This comparison of relative positioning facilitates the identification of dominating factors as well as areas of interest, which deserve a conversation and/or supervisory follow-up. The NLCS PG will collaborate closely with a number of Stakeholders (provide and receive input).

Output focus: IMs are historically rich in methodologies and modelling approaches. Therefore, the NLCS mainly focuses on IM outputs to enable a technically sound framework independent of methodologies or modelling granularities. At the same time, the NLCS 2020 respects the internal view of risk and model choices.

Part 1: NLCS 2020 Objectives

Evaluation of Internal Models over time

Model drift: 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. The NLCS 2020 will therefore aim to understand relative developments over time e.g. IM development, business model and market:

- Providing a broad overview on general trends.
- Breaking down trends into peer groups.
- Establish shared points of reference (topic, granularity, paradigms).

Part 1: NLCS 2020 Objectives

Stakeholder engagement

Stakeholder feedback: The NLCS 2020 aspires to high levels of transparency and provides the opportunity for multiple feedback touchpoints between Stakeholders and the NLCS PG across different phases of the exercise.

Participation & coverage: The NLCS 2020 aims to achieve a large European wide coverage of solo IM undertakings (materiality and proportionality consideration have be taken into account).

Communication and compliance: Overall the NLCS PG expects template compliance and accurate deviation reporting. IMs enjoy within the Solvency 2 framework freedom in the way risk is modelled. For a fair evaluation of IMs within a European Comparative Study clear and transparent communication on the implementation of these freedoms is key to avoid misunderstandings on the way to a public report.

Part 2:

NLCS 2020 Priorities

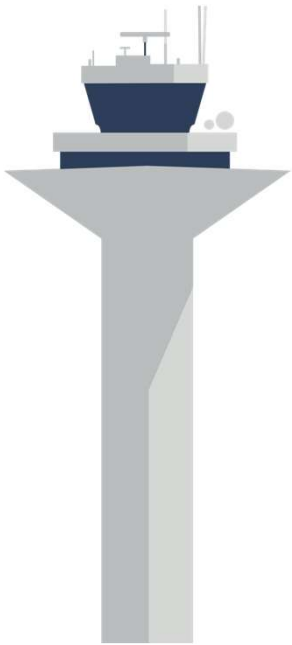


Part 2: NLCS 2020 Priorities: “NLCS 2020: Air Traffic Control”

- Follow up on First NLCS Edition
- Diversification
- Business & Risk Profile



Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition



The last NLCS edition has identified a number of attention points, which were communicated to participants, followed up by NCAs and taken into account by the NLCS PG for this edition. Main follow-up topics are:

- Data & acceptance
- Granularity
- Risk measure definition
- Standard formula
- Risk emergence
- Bodily injury claims

Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Data & acceptance



The NLCS 2020 has reinforced the Q&A process in the run up of the exercise to improve communication channels between NLCS expectations and undertakings' submission of data:

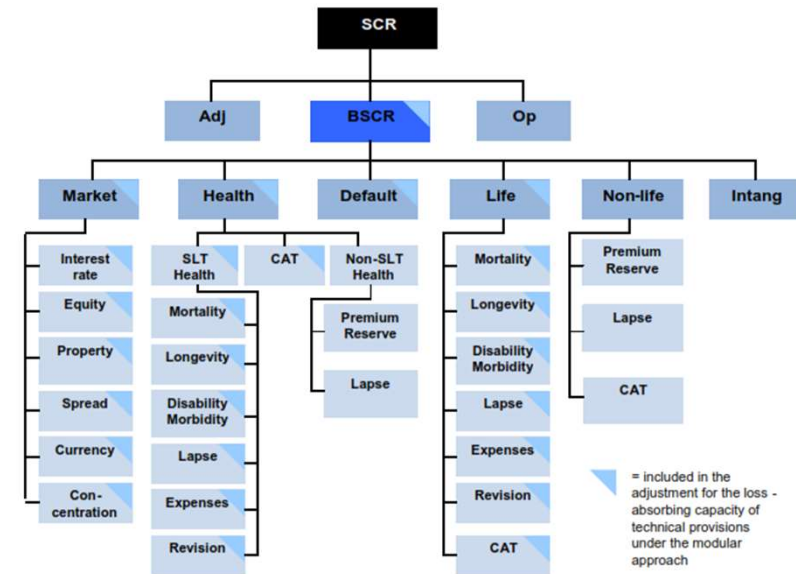
- **Deviation reporting:** Increased qualitative and quantitative ability for deviation reporting included in the survey to allow for reporting of differences.
- **Validation checks:** Projection of consistency expectation for participating undertakings (Similar to QRT reporting).
- **Enhanced acceptance process:** National acceptance by NCAs and central acceptance carried out NLCS PG.
- **Disclosure in public report:** Communication of rejections in a public report (e.g. rejected because of oversimplification not within the remit of the NLCS 2020).

Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Granularity



NLCS 2020 uses a number of granularities, E.g.:

- **S2LoBs:** Used for Standard Formula reporting under Solvency 2. This shared model independent granularity is particularly useful for quantitative analyses (over time).
- **IntLoBs:** 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. Qualitative information from IntLoBs is used to understand the dynamics of IntLoBs and S2LoBs.
- **CatPerils:** Understood to be used for internal reporting as well as the management of the capital positions by the undertaking.

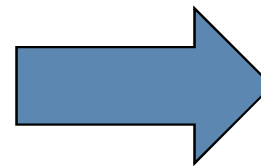
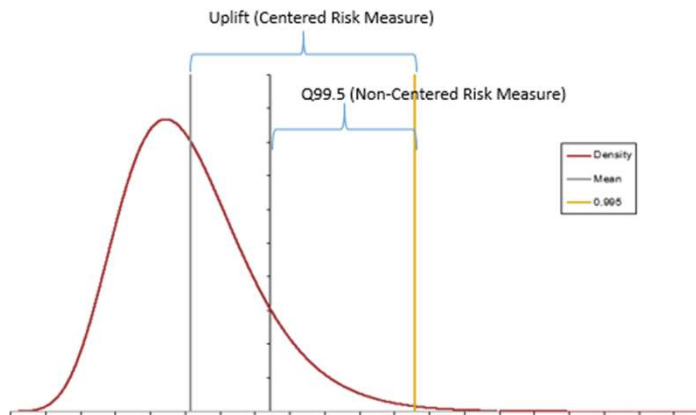


Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Risk measure definition (1/2)

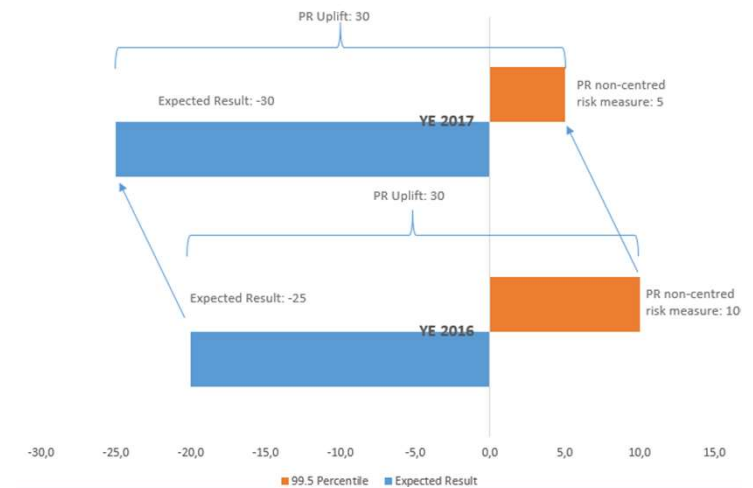


The last NLCS identified differences in risk measure definitions. The (evolution of) result can differ significantly as shown in the example below (centred vs non-centred risk measure):

One Year PR Profit & Loss Distribution



Evolution of the Risk Measures



Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Risk measure definition (2/2)



The definition of the risk measure and its development over time (time series analysis) is identified as a focus topic:

- **Risk capital definition:**
 - Direct comparisons of SCR and **Uplift** (Uplift = distance 99.5th percentile to mean of the non-centred distribution).
 - EU-wide analysis on the **use of different risk metrics**, its rationale and implications for the understanding of Non-Life Underwriting Risk in IMs.
- **Accident Year (AY) versus Underwriting Year (UY):** Decomposition of Premium and Reserve Risk depending on AY and UY modelling.
- **Collecting scenario information**

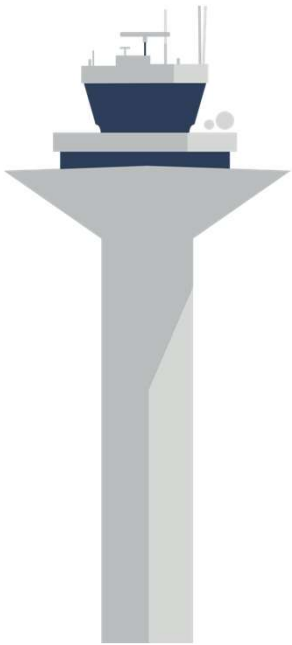
Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Standard Formula (SF)



Comparisons between IM and SF have to be carried out with precaution, but the last edition showed that comparison and time series analysis are possible and create valuable insight as the SF calculation is a shared point of reference for IMs. The SF comparison is identified as a focus topic:

- **SF/IM differences:** Determine undertaking characteristics driving the differences between IM outputs and SF results.
- **SF calculations:** For the benefit of the comparability the NLCS 2020 gives undertakings the option to provide (their own) standard formula calculations (in particular the impact of the risk mitigating techniques).
- **IntLoBs & Perils SF:** IntLobs and Cat Risks Perils still on SF calculation are included in data submission (Please refer to section Diversification).

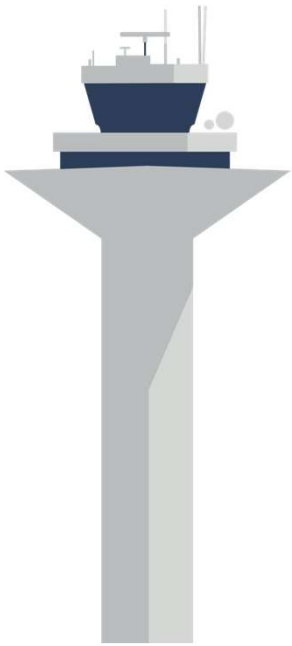
Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Risk Emergence



The treatment of risk emergence will be endeavoured as a priority in the next edition of the NLCS:

- **Decomposition:** Dedicated (qualitative and quantitative) questions (E.g. ultimate modelling vs. 1-year view, time value of money).
- **Time horizon:** Endeavour how the choice of time horizon modelling may have an impact to the modelled risk profile and the Risk Capital.

Part 2: NLCS 2020 Priorities: Follow up on First NLCS Edition: Bodily Injury Claims



Bodily injury (BI) claims play a major role in the development of a number of LoBs and their representation in IM modelling (profitability & risk view), therefore this aspect has been selected as a focus topic, in particular:

- **Type of BI settlement:** Mapping out of the treatment of bodily injury claims as well as the response to change of IMs to (regulatory) change.
- **Awardance and risk of annuities:** Understanding on a European level better the modelling of annuities within or outside of the Non-Life underwriting risk perimeter as well as its impact on risk and result.

Part 2: NLCS 2020 Priorities: Diversification:



The NLCS 2020 focuses **mainly on an impact analysis** of diversification benefits occurring at intra Non-Life Underwriting Risk levels. The analysis move from the overall risk to lower granularities such as S2LoB and IntLoB for Premium and Reserve Risk as well as Cat Risk Perils (where applicable):

The aspect of diversification has been developed in **partnership** with the **Diversification Study Project Group (DivPG)** which results in coordinated approaches, methods and input specifications and minimises **double reporting to an absolute minimum** (E.g. scenarios).

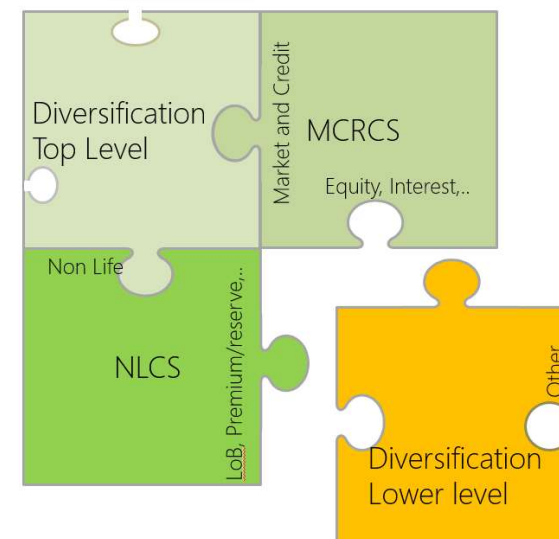
As a result NLCS 2020 and DivPG will be able to share information between the exercises.

Part 2: NLCS 2020 Priorities: Diversification:

The study on Diversification in IM was launched on Oct 1st 2020, with the following objectives:

- Collect an overview of current market approaches in order to analyse and compare the levels of diversification.
 - Facilitate a shared understanding of modelling dependencies, aggregation and resulting diversification benefits.
 - Contribute to enhance quality and convergence of supervision in internal models.
- To balance completeness and complexity, the study will first focus on ‘top level risks’ before analysing the second phase on ‘lower level risk’ which is also closely linked to the MCRCS and NLCS studies. In addition, this study aims for a wide participation rate. Further info can be found here:

https://www.eiopa.europa.eu/content/study-diversification-internal-models_en



Part 2: NLCS 2020 Priorities: Diversification:

The Diversification questionnaire is developed to carry out the following analysis:

1. Concentration of risk: *Viewing Diversification in the light of concentration of the sub risks. Comparisons will indicate where diversification is high given the concentration across risks.*
2. Determination of a single metric to enable comparisons. *Diversification score, taking into account full independence of risks. This metric make it a suitable metric to compare the overall strength of dependency between undertakings at top risk level with little distortion from the relative size of underlying risks.*
3. Scenario analysis and mix dependence and single risks of undertakings. *Perform statistical analysis on marginals, standardized marginals and gauge SCR impact of dependency function framework.*



Part 2: NLCS 2020 Priorities: Business & Risk Profile



The modelled risk profile will be explored in a context of the actual business development. For Premium and Reserve Risk the survey has been particularly designed to accommodate and capture the following focus S2LoBs (direct and indirect):

- **MTPL:** Motor vehicle liability insurance
- **GTPL:** General liability insurance
- **MoD:** Other motor insurance
- **FIRE:** Fire and other damage to property insurance
- **C&S:** Credit and suretyship insurance (New S2LoB: Separate survey sections for quantitative, qualitative questions and exposure)

Part 2: NLCS 2020 Priorities: Business & Risk Profile



The NLCS aims to understand the individual risk profile of undertakings by collecting information on:

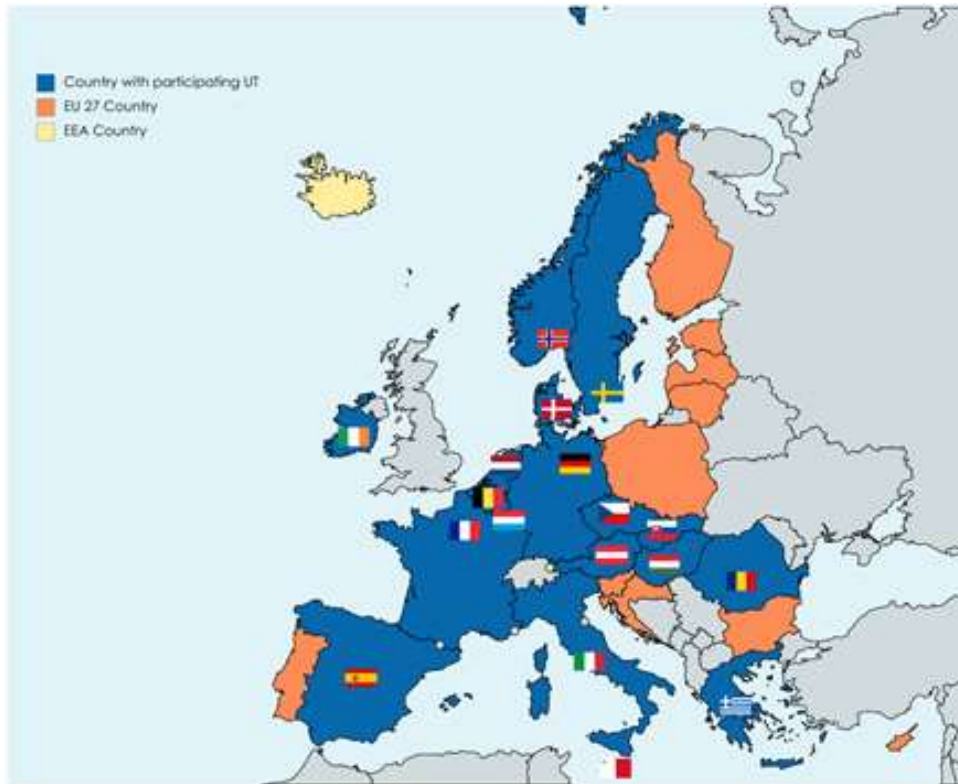
- **Business Mix:** IntLoB specific questions, which reflect the business (E.g. lumpy business vs plain vanilla).
- **Geographical footprint:** Understand the location of underwritten contracts and location of risks. EEA cross border business will be treated as local business.
- **Year-on-Year Changes:** Understanding risk profile changes due to organic (e.g. portfolio, model changes), inorganic (e.g. portfolio transfer, M&A) or strategy changes.
- **Covid-19:** Understand the IM impact of Covid-19 (YE 2020 only).

Part 3:

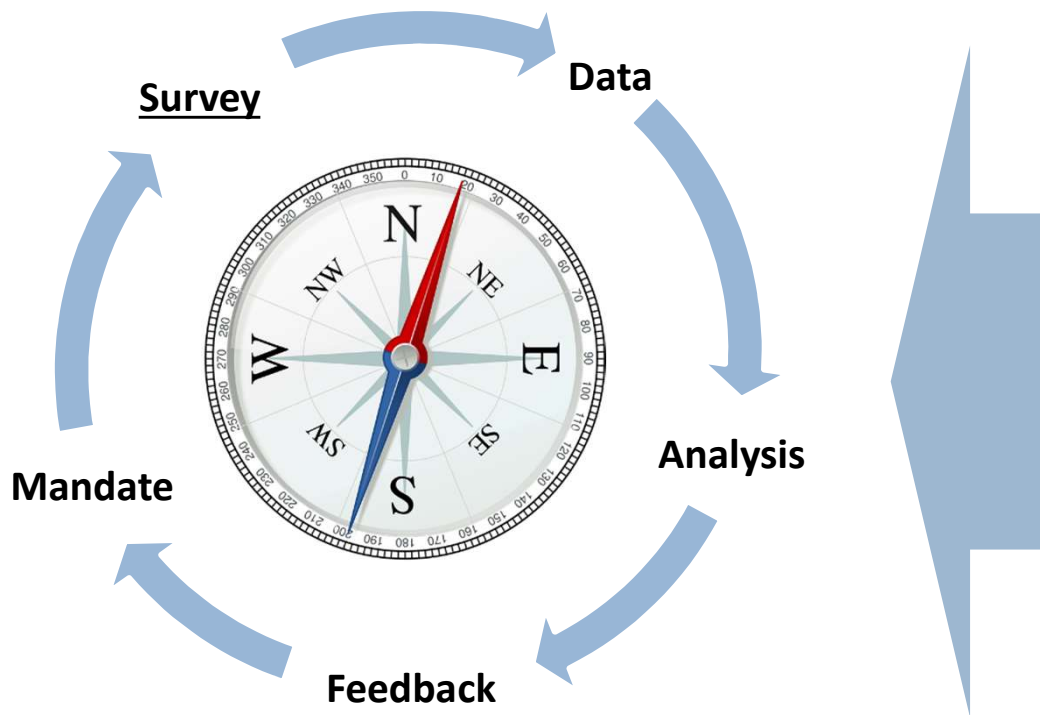
NLCS 2020 Organisation



Part 3: NLCS 2020 Organisation Coverage of countries and groups



Part 3: NLCS 2020 Organisation Process

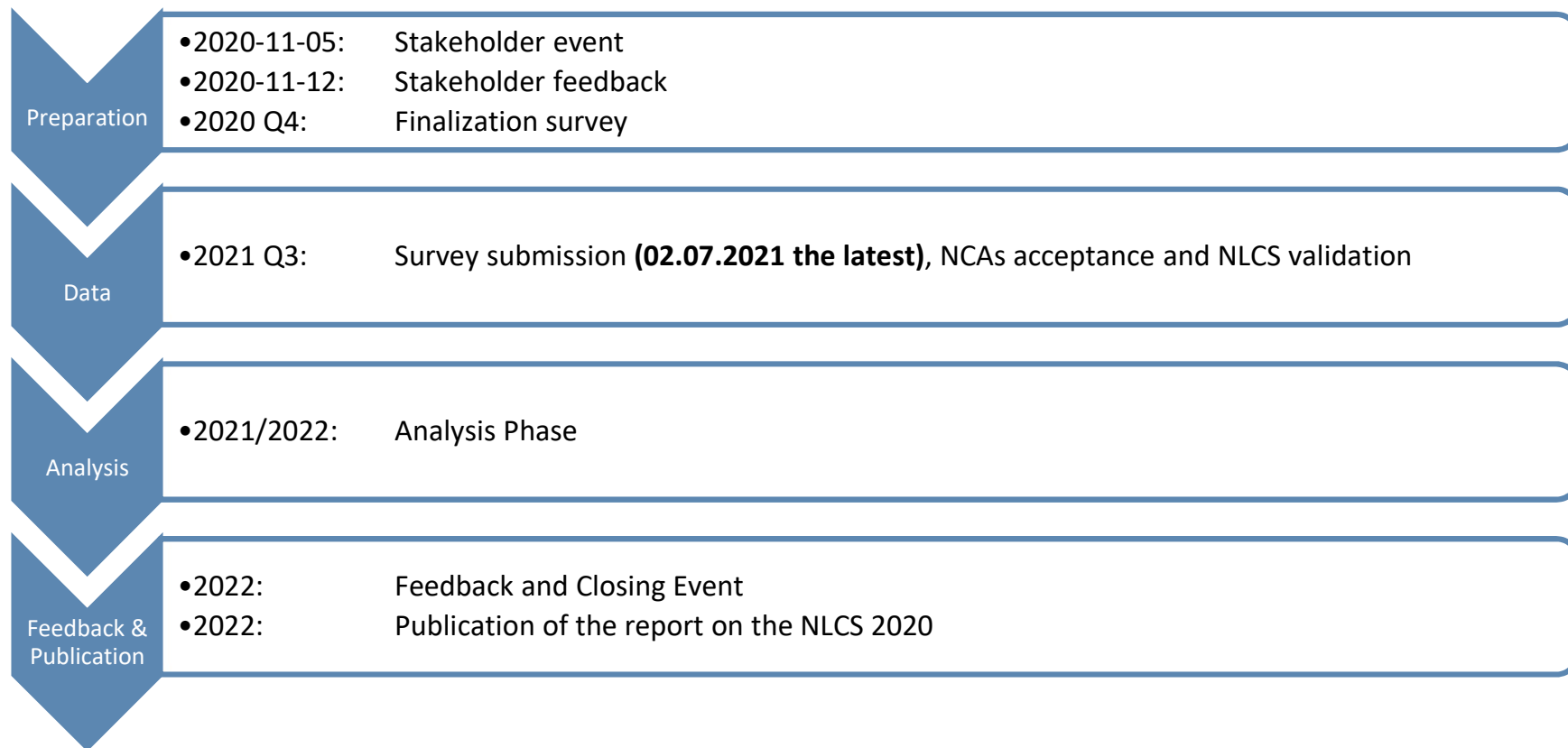


Feedback:

Feedback from previous NLCS edition has been taken into account for the design of the NLCS 2020, e.g.

- Agreed feedback to the NLCS
- Early engagement with stakeholders and participants
- Validation Checks
- Topical priorities
- Project supervisory concerns
- 360° Feedback

Part 3: NLCS 2020 Organisation Timeline



Part 3: NLCS 2020 Organisation NCA contact points

In order to provide feedback after today's meeting please use your national contact points.

- For groups with more than one participant please streamline your questions
- The responsibility for the submission remains with the solo undertakings
- Deadline November 12th

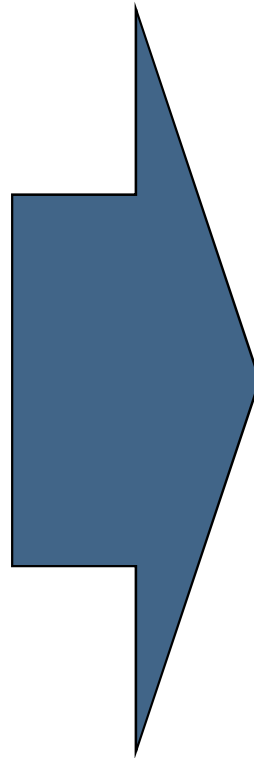
Part 4:

Discussion & Feedback



Part 4: Discussion & Feedback Q&A

- Constructive
- Specific
- Focused
- Concise



Chat Questions:

We will first go through the questions received through-out the presentation.

THANK YOU!

For more information visit:
<https://www.eiopa.europa.eu>

