EUROPEAN CENTRAL BANK

BANKING SUPERVISION

The ECB supervisory data quality framework

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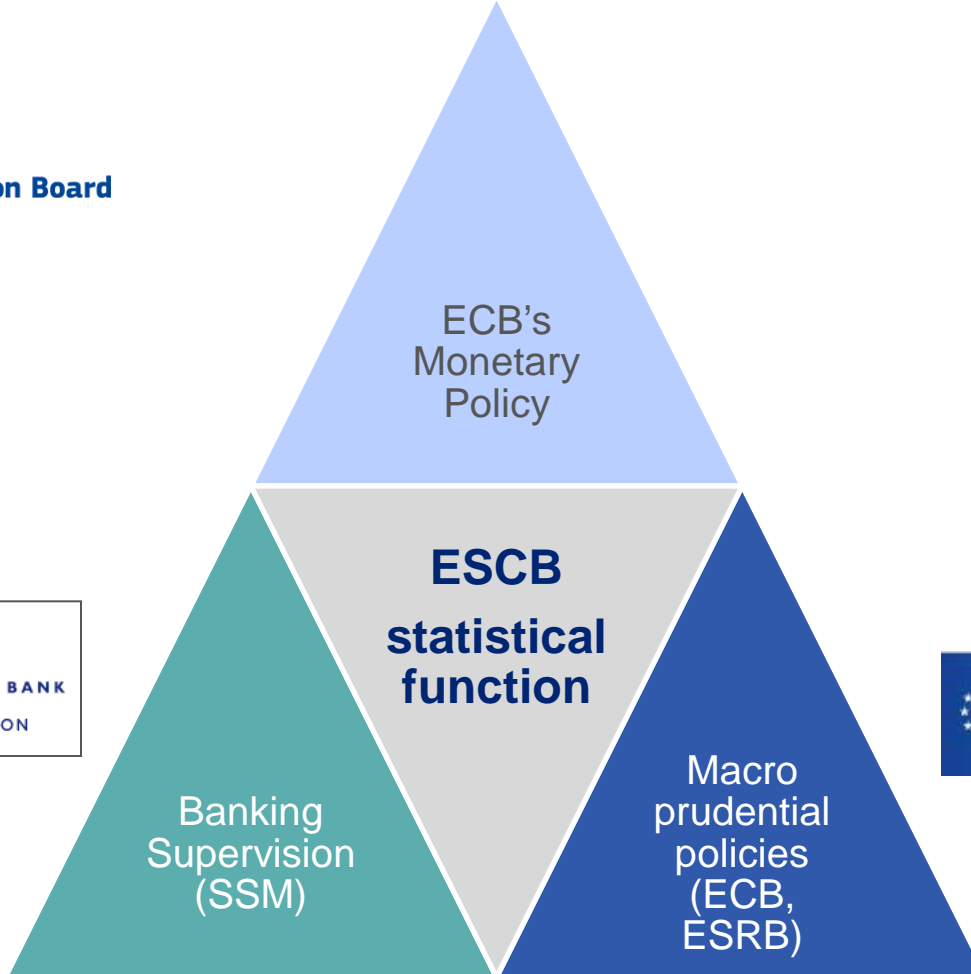
Supervisory Reporting Conference

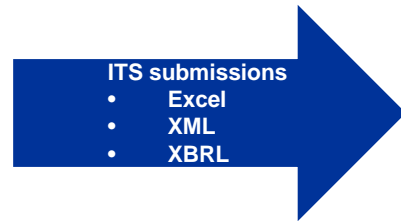Frankfurt - 06 November 2018

European Central Bank, Frankfurt

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Banking Supervision Data and the Sequential Approach (1)

The sequential approach

Credit Institution

NCA

ECB

ITS submissions
- Excel
- XML
- XBRL

ITS submissions only in XBRL
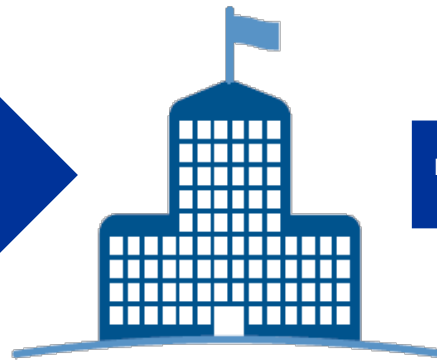
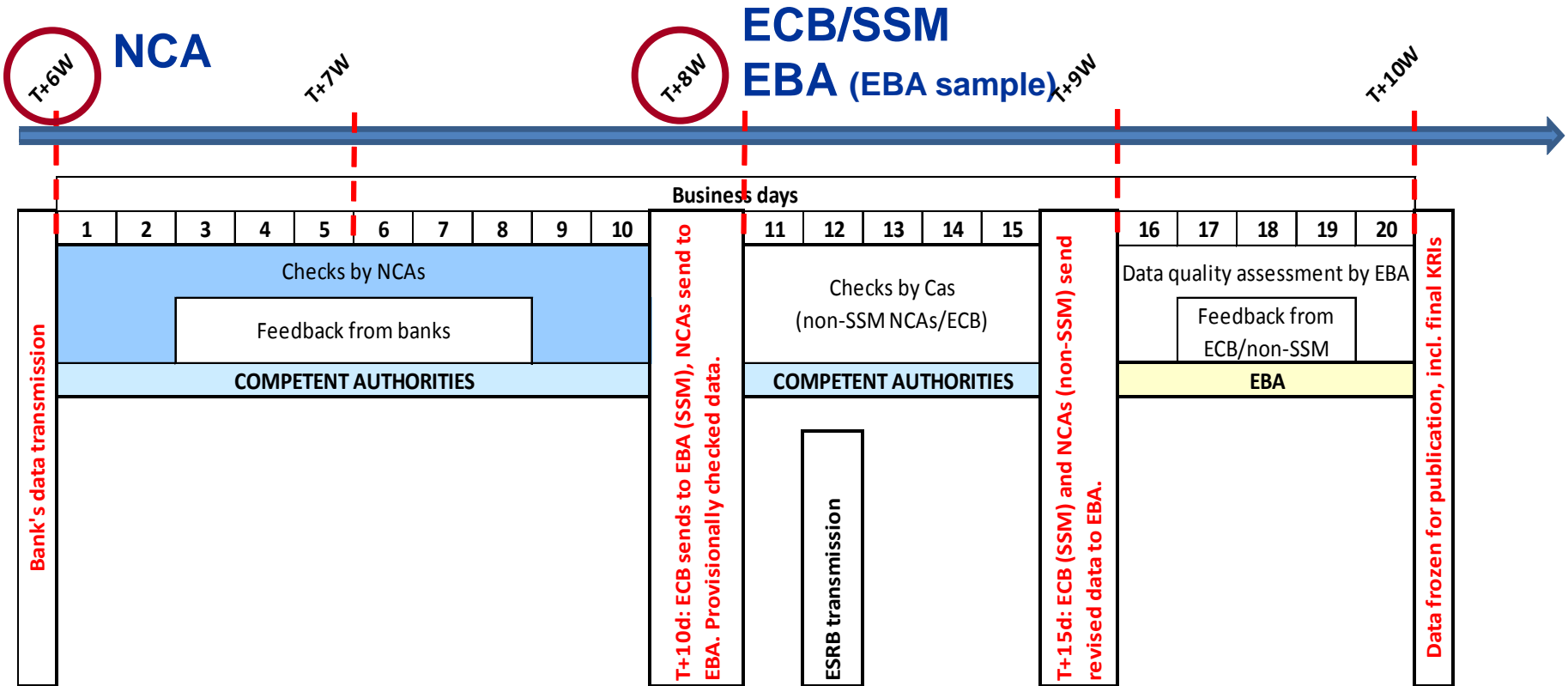## It is the bank's responsibility to submit 100% accurate and complete supervisory data on time

Timelines of the sequential approach

NCA

ECB/SSM

EBA (EBA sample)

T+6W   T+7W   T+8W   T+9W   T+10W

Business days

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 11 | 12 | 13 | 14 | 15 | | 16 | 17 | 18 | 19 | 20 | |

Bank's data transmission

Checks by NCAs

Feedback from banks

COMPETENT AUTHORITIES

T+10d: ECB sends to EBA (SSM), NCAs send to EBA. Provisionally checked data.

Checks by Cas (non-SSM NCAs/ECB)

COMPETENT AUTHORITIES

ESRB transmission

T+15d: ECB (SSM) and NCAs (non-SSM) send revised data to EBA.

Data quality assessment by EBA

Feedback from ECB/non-SSM

EBA

Data frozen for publication, incl. final KRIs

T: reference date

→ *Very **tight deadlines** for submission of information*

"ECB Remittance Calendar": **advanced information** to NCAs/banks

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1	**Context:: Banking Supervision Data and the Sequential Approach**
2	**The Data Quality Framework at the ECB**
3	**Data Quality Dimensions and Metrics**
4	**Data Quality Products**
5	**Data Quality Initiatives**

Introduction

❑ ECB's data quality framework seeks to ensure that **supervisory assessments and actions are based on timely, reliable and high quality data**, as measured in terms of punctuality, completeness, stability, plausibility and accuracy.

❑ **The quality of supervisory reporting (both ITS and STE data) has improved over the past 4 years, but still room for improvement**

➢ A set of tools to monitor, assess and improve the data quality has been implemented.

➢ The data quality assessment is part of the SREP (Element 2 Internal Governance assessment).

➢ Statistics on data quality show a general improvement over the past 4 years. However, a number of banks still systematically fail to provide timely data of good quality and in adapting to an evolving reporting framework.

BCBS 239 and Data Quality

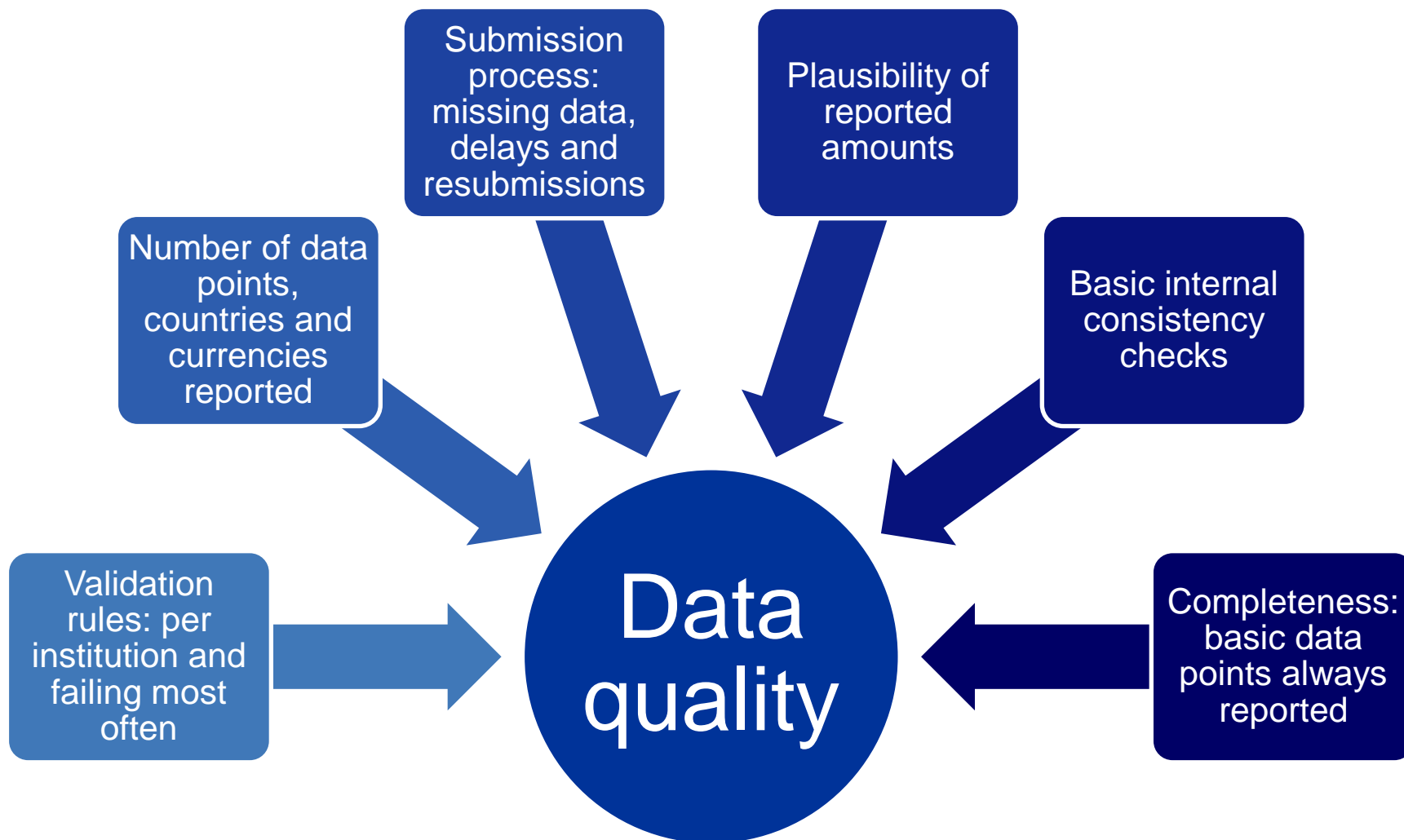| Governance and Infrastructure	Risk Data Aggregation Capabilities	Risk Reporting Practices	Regulatory Review
• Governance • Data Infrastructure & IT infrastructure	• Accuracy and integrity • Completeness • Timeliness • Adaptability	• Accuracy • Comprehensiveness • Clarity and usefulness • Frequency • Distribution	• Review • Remedial actions and supervisory measures • Home/host cooperation

Scope of application!

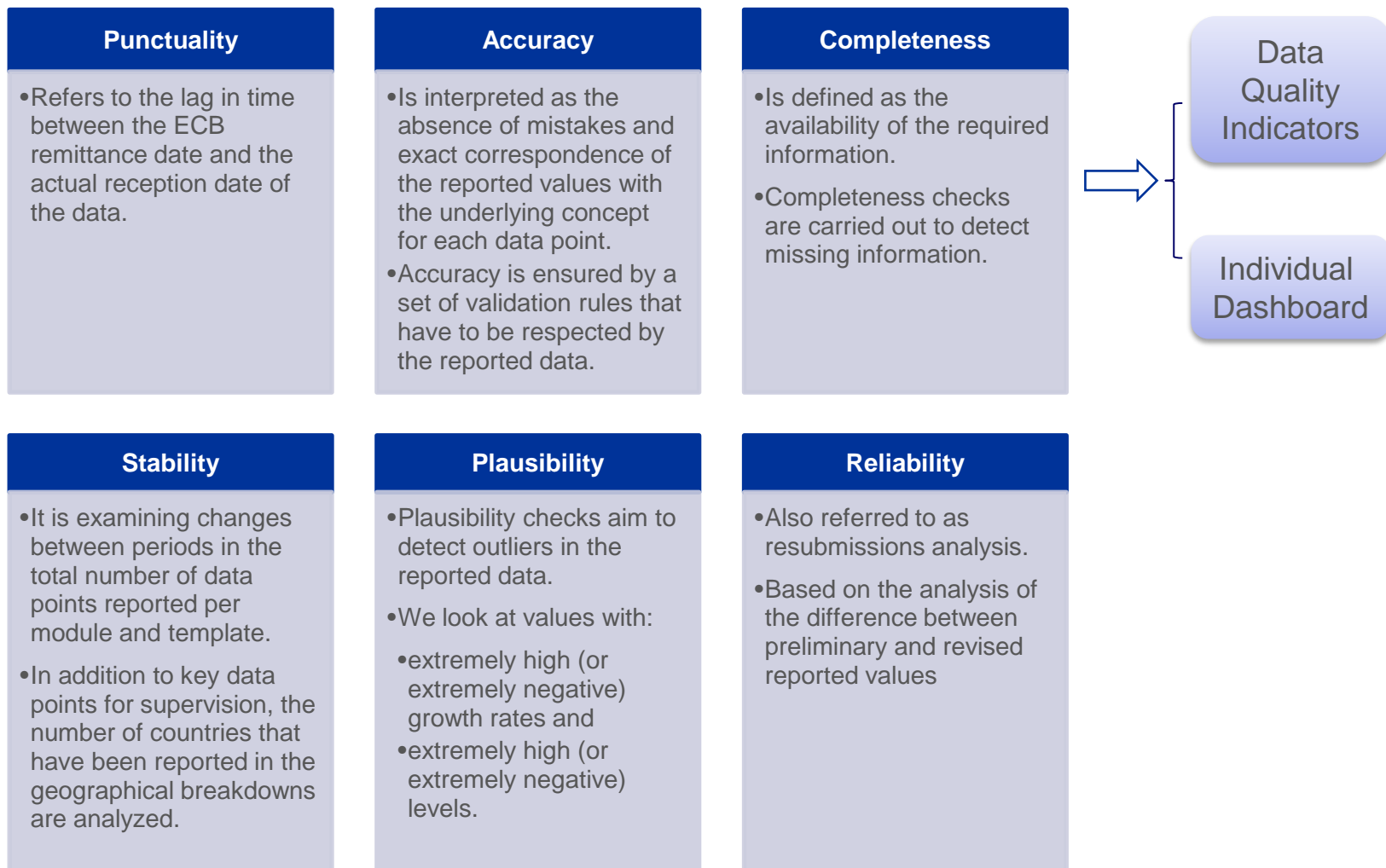**ECB Banking Supervision Data Quality Framework**

Comprehensive approach to data quality

Submission process: missing data, delays and resubmissions

Plausibility of reported amounts

Number of data points, countries and currencies reported

Basic internal consistency checks

Validation rules: per institution and failing most often

Data quality

Completeness: basic data points always reported

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How is data quality assessed?

Punctuality

- Refers to the lag in time between the ECB remittance date and the actual reception date of the data.

Accuracy

- Is interpreted as the absence of mistakes and exact correspondence of the reported values with the underlying concept for each data point.
- Accuracy is ensured by a set of validation rules that have to be respected by the reported data.

Completeness

- Is defined as the availability of the required information.
- Completeness checks are carried out to detect missing information.

Stability

- It is examining changes between periods in the total number of data points reported per module and template.
- In addition to key data points for supervision, the number of countries that have been reported in the geographical breakdowns are analyzed.

Plausibility

- Plausibility checks aim to detect outliers in the reported data.
- We look at values with:
- extremely high (or extremely negative) growth rates and
- extremely high (or extremely negative) levels.

Reliability

- Also referred to as resubmissions analysis.
- Based on the analysis of the difference between preliminary and revised reported values

Data Quality Indicators

Individual Dashboard

Hard checks: Punctuality

Punctuality refers to the lag in time between the remittance date and the actual submission of the data from the NCA to the ECB (ongoing engagement with NCAs to receive information on the submission from institutions to NCAs at the ITS remittance date.

✓ Days of delay

✓ Days of delay until receiving a fully-valid report

✓ Number of fully-valid reports accepted on time

Hard checks: Accuracy and Consistency (a)

Accuracy is defined as the absence of mistakes and exact correspondence of the reported values with the underlying concept for each data point. It is measured by the compliance of the institution with the EBA validation rules within the ITS reporting framework (COREP & FINREP).

✓ Number of
validation errors

✓ Percentage of failing
validation rules

✓ Concentration of
validation errors

Hard checks: Accuracy and Consistency (b)

Consistency is defined as the satisfaction of logical relations between different subsets of the data (i.e. across templates), their correspondence with the master data associated to the institution and their correspondence with other published data. The reported information shall be consistent over time, across datasets and comparable with external data.

- Internal consistency:
  Reported values are consistent and reconcilable across templates. Moreover, values are consistent with the information provided in the master data.

Consistency

Accuracy   Accuracy
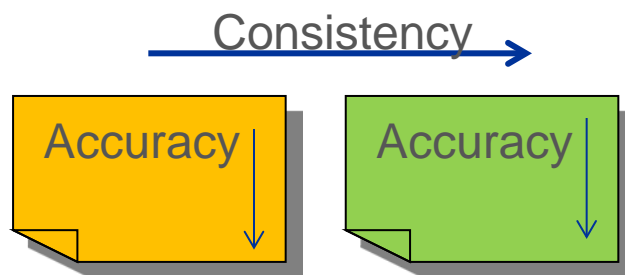
- External consistency
  Various checks should be carried out to assess the consistency of the data received with other datasets, published balance sheets and internal ECB Data.

Soft checks: Stability and Completeness

Stability is analysed by examining changes between reporting periods in the total number of data points reported per module and template. In addition to key data points for supervision, the number of countries that have been reported in the geographical breakdowns in COREP and FINREP and the number of significant currencies in ALMM and NSFR are analysed.

Completeness is defined as the availability of the largest and most material subset of the required information.

✓ Number/Ratio of missing modules

✓ Number/Ratio of missing templates
(2nd level completeness)

✓ Number/Ratio of missing pre-defined data points that are consider essential by supervisors to complete key supervisory tasks

✓ Concentration of missing data-points across the modules

Soft checks: Plausibility

Plausibility checks seeks to detect outliers in the reported data. This is achieved by reviewing the time series of the variable concerned from both a statistical business-based approach. Values that markedly deviate from the usual pattern of the series are isolated and further analysed.
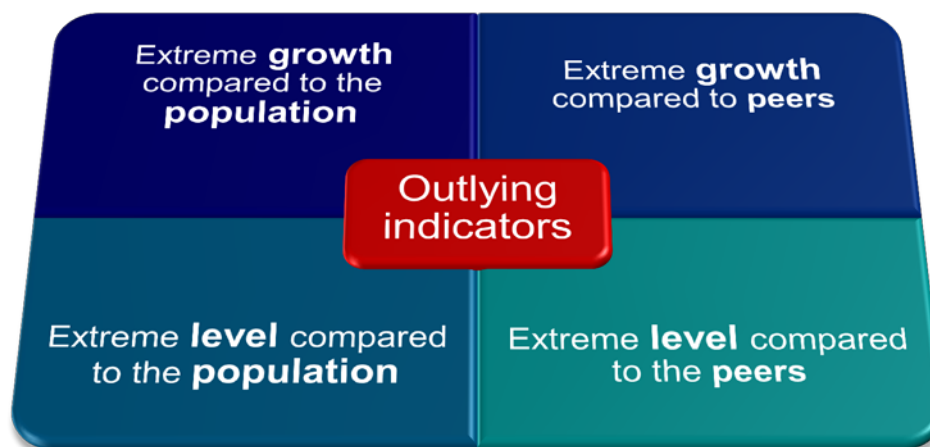
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Data Quality Products (1)

Data Quality Assessment

In production

Produced for each reference period

Shared with NCAs and ECB Banking Supervision

For information to the Supervisory Board members

Data Quality Indicators in IMAS

In production

Based on internal consistency of data

Individual dashboard per institution

In production

With a rating for each institution

Report on breaches

In production

Produced for each reference period

Overview of non compliance with regulatory requirements

Thematic analysis of certain areas of the ITS

In production

Together with volunteers from Expert Group on Data Quality (EGDQ) ; Outcome: additional data quality checks
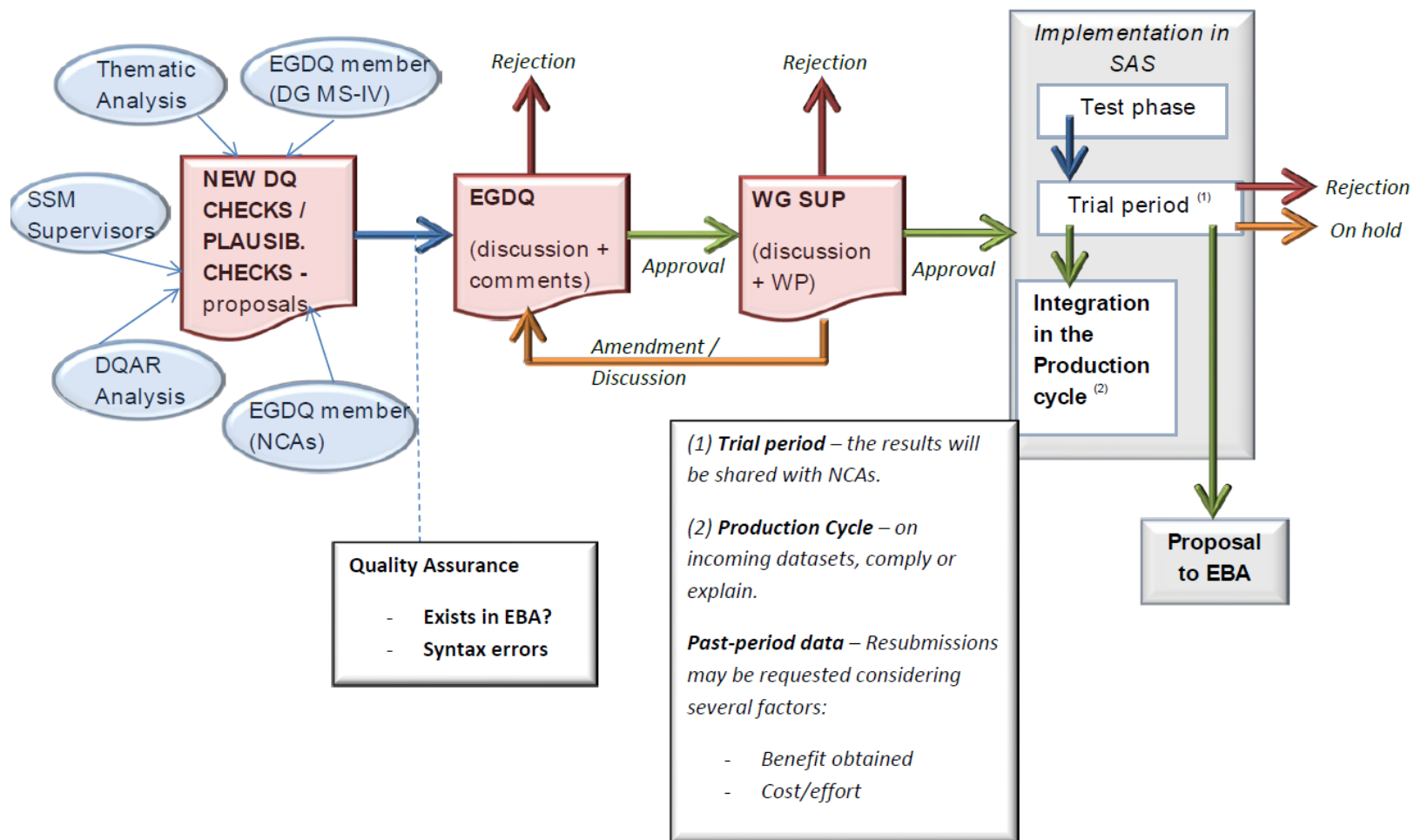
Data Quality Findings

In production

Produced for each reference period

Serves as basis for Data Quality Assessment

Shared with NCAs and ECB Banking Supervision

Data Quality Tracking Tool

In production

Facilitates end-users in ECB Banking Supervision raise ad-hoc data quality issues.

Additional DQ Checks – the EGDQ process

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The Escalation Process

What is it?	Current scope and method

The Escalation Process constitutes one workflow within the overall framework for data monitoring and quality assessments that is set up jointly by the ECB's Banking Supervision Data Division (DG-S/SUP) alongside counterparts in ECB Banking Supervision as part of its responsibilities for managing the supervisory data of significant institutions (banks) under SSM supervision

"List of banks" identified for follow-up based on:

- **Significant** supervised banks at **highest** level of consolidation
- **Quarterly** reports of ITS supervisory data
- Three **quality dimensions** of: Punctuality, Accuracy, Completeness
- **Expert Judgement** alongside quantitative findings

"Preparation phase" precedes the formal start of the process

- NCAs notified that specific banks potentially fall under scope of **an Escalation Process,** and included in communication at each stage of the process

- Consultation with JSTs on decisions to escalate and in drafting of Operational Acts and ECB Decision

Possible actions

- **Letter to CFO, letter to CEO, referral with draft SB decision** in order of escalation

Data Quality Initiatives (2)

Task Force on the Harmonisation of the Sequential Approach (TFHSA)

Background	Work Streams

Since 2016, the Working Group on Supervisory Statistics has been mandated to work on the **harmonisation of national practices** to establish a level playing field for the data quality assessment of the reporting institutions.

The **objectives** of the TFHSA are to:

➢ Further analysis of the national best practices

➢ Definition of a minimum common set of practices to be implemented by NCAs and ECB

➢ Establishing a level playing field for SSM reporting institutions in terms of data collection and data quality assessment

➢ WS1: Collection of supervisory ITS data from banks to NCAs

➢ WS2: Supervisory data quality management and interaction with supervised entities

➢ WS3: Involvement of external auditors and on-site inspections

➢ WS4: Interaction and engagement with JSTs

➢ WS5: Submitting ITS data to the ECB

➢ WS6: Interaction with key stakeholders

➢ WS7: Resubmissions *(on hold)*

Thank you for your attention