

## BearingPoint<sub>®</sub>

« France & Austria: exploring different paths to maximized valuecreation in regulatory reporting»

Paris, le 20 septembre 2016

Développer et promouvoir une « smart regulation » à travers l'échange entre régulateurs et régulés

In search of a regulatory reporting system that is 'useful' and economical

Dr. Maciej Piechocki

Paris, September 20th, 2016













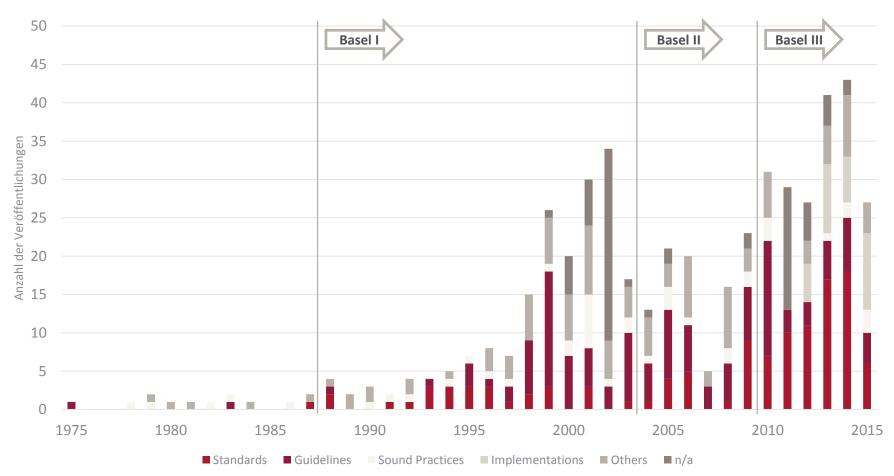


## Agenda

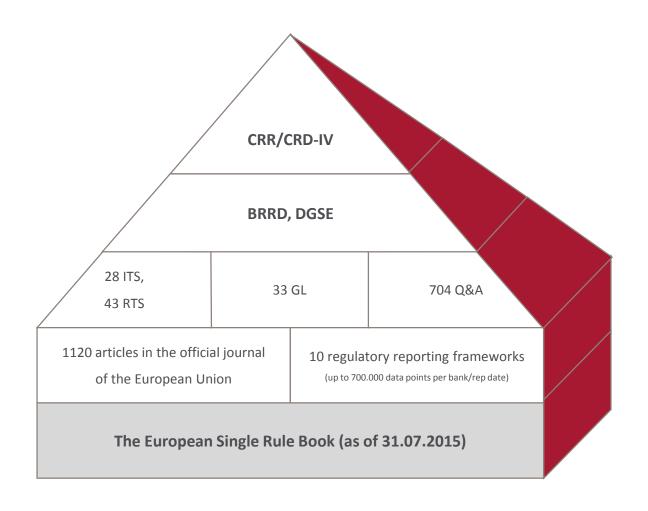
- 1. Regulatory reporting trends in Europe
- 2. Tackling the regulatory reporting burden ... differently

#### Trend 1: The global regulation flood is not ending

#### **BCBS PUBLICATIONS SINCE 1975**



#### **Trend 2: The European Single Rule Book is ever-increasing**



#### **Trend 3: Substitution of reporting templates by granular data cubes**

#### **Templates**

- · aggregated data
- fixed
- limited analysis
- costly extension
- error prone
- apples and oranges?
- output validation

#### **Data Cubes**

- granular data
- multi-use of information
- "unlimited" analysis
- "simply" extensible
- consistent
- comparable
- source validation

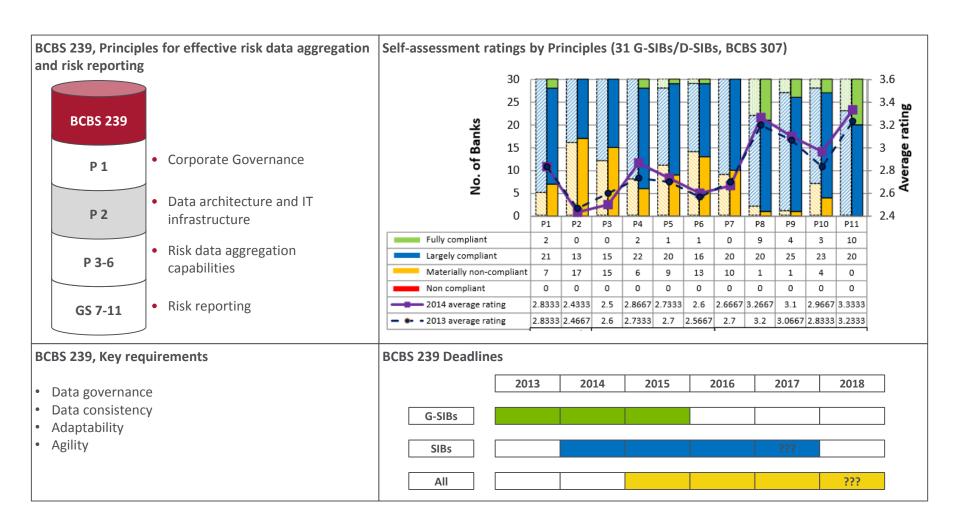
Initiatives and projects AnaCredit, ERF\*, B.I.R.D.\*

- \* ERF = European Reporting Framework
- \* B.I.R.D. = Bank's Integrated Reporting Dictionary

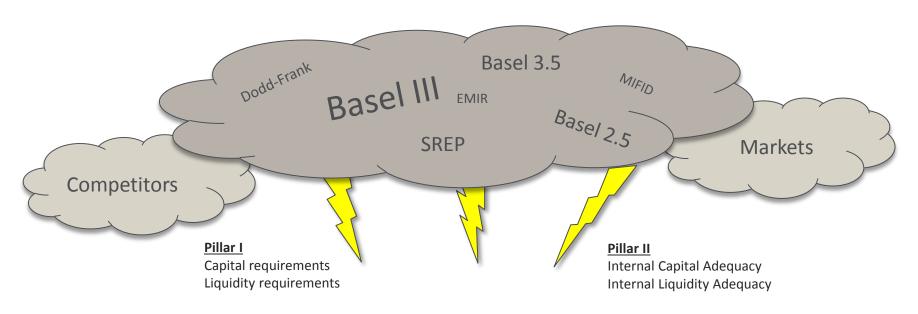
#### Trend 4: Substitution of rule-based by ad-hoc reporting obligations



#### Trend 5: Increasing importance of risk data aggregation and risk reporting



#### Trend 6: Banking Regulation is increasingly restricting banks business models



Assets	Liabilities
I Cash II Loans III	I Deposits II Debentures III
	IV Own Funds



## Agenda

- 1. Regulatory reporting trends in Europe
- 2. Tackling the regulatory reporting burden ... differently

#### Largest regulatory reporting factory enabled by BearingPoint

Central banks foster new coopetition models in financial services using granular data submissions



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## **New Ways in Reporting for Austrian Banks**

European Institute of Financial Regulation (EIFR), September 20, 2016

Johannes Turner
Director Statistics Department
Oesterreichische Nationalbank

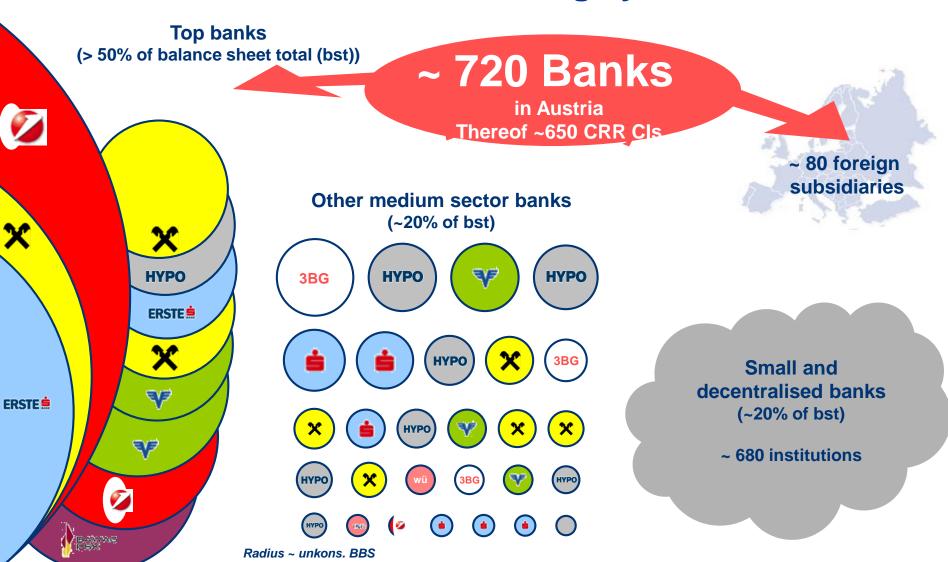
www.oenb.at



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## The Austrian banking system

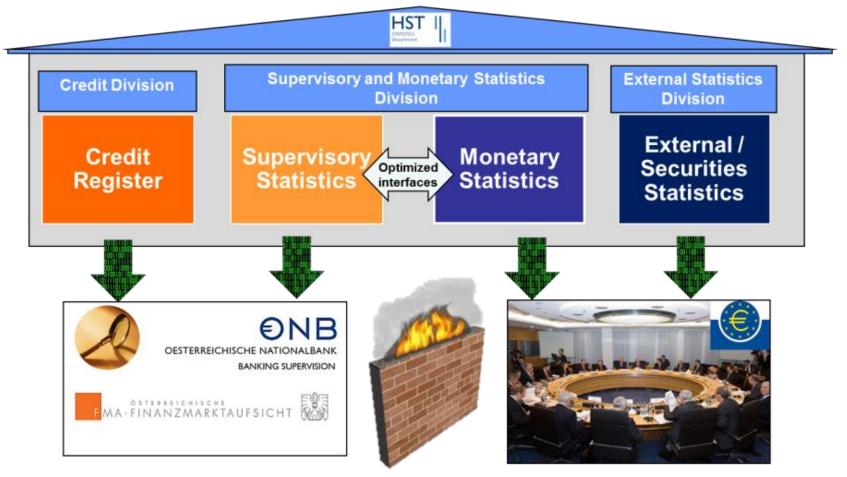






## Facing the challenge

Benefit from synergy effects of an harmonised reporting process



Organisationsstruktur 2008 - 2012





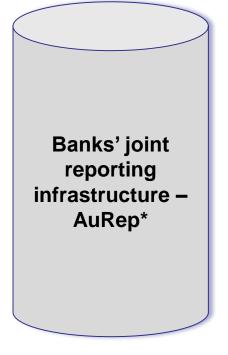
## Why new ways in data reporting?

- In the field of central banks' statistics and supervision user and hence data reporting requirements have grown significantly
- > They are getting more **granular** and **complex**
- Traditionally, each institution used its own approach to data collection
- Leads to redundant data collection schemes and a lack of data consistency
- Internal and external reporting often diverge
- Need for high-quality, comparable and timely data on the one hand (BCBS 239) and cost efficiency on the other-hand motivate for
- New ways in data reporting





## The two pillars of the Austrian way



Joint development of the integrated reporting data model – SCom\*

- Precondition: Commitment of banks' top management to support the new ways of reporting
- Objective: medium term cost savings for the whole market with better data quality

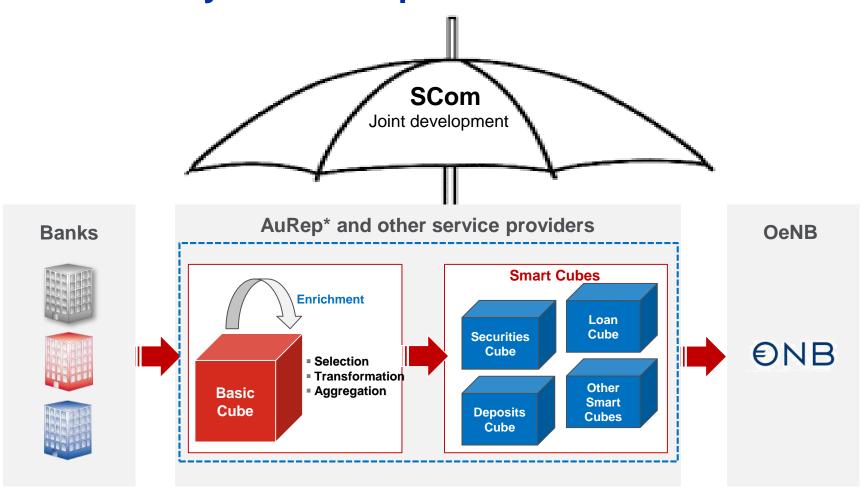
<sup>\*</sup>SCom ... Standing Committee between banks and OeNB

<sup>\*</sup>AuRep ... Austrian Resporting Services GmbH





## **Key factor cooperation with banks**



<sup>\*</sup>SCom ... Standing Committee between banks and OeNB

<sup>\*</sup>AuRep ... Austrian Resporting Services GmbH





#### **Austrian Reporting Services GmbH Tasks**



- Founded in 2014 by 7 banks as central reporting platform
- AuRep covers now about 90% of the Austrian banking sector
- Banks are still responsible for correctness of the reports and their content
- Main tasks
  - Production of Smart Cubes (multidimensional reporting forms)
  - Pre-testing the joint reporting software
  - Interface to software developer
  - Interface to banks regarding sourcing of the joint reporting data warehouse (Basic Cube)
  - Central contact for OeNB in case of technical issues
  - Cooperation with OeNB regarding mapping rules from Basic Cube to final templates
  - Strategic partner of OeNB concerning the further development of the reporting data model





## **Advantages/Challenges**



- ➤ Consistent implementation of integrated data model → avoiding double efforts for the implementation

- Unique software and hardware
- Central enrichment, aggregation, quality assessment- and correction procedures
- Central discussion platform
- Central interface (i.e. intermediary) to OeNB
- Higher project risk for banks due to initial costs, new interfaces, processes & responsibilities, performance

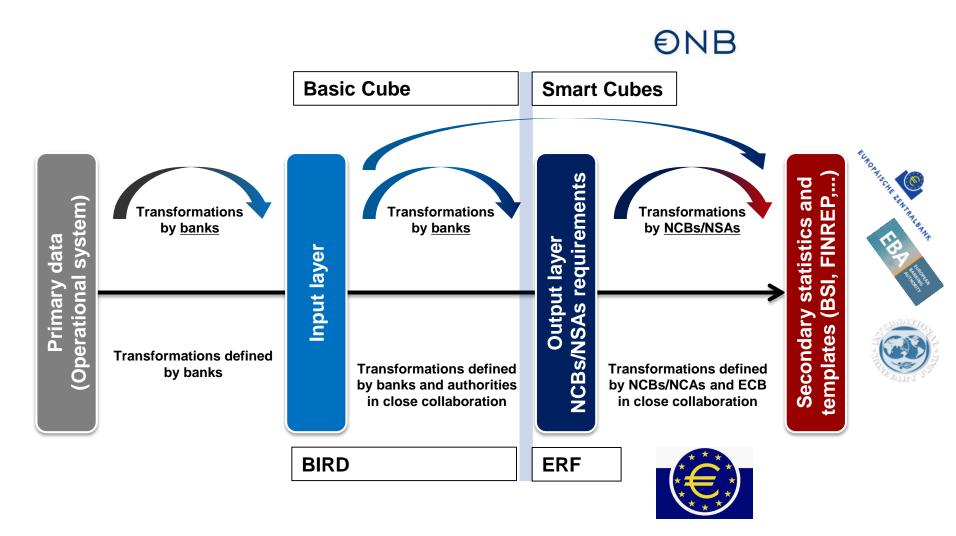


Acceptance of the new roles and using synergy potentials





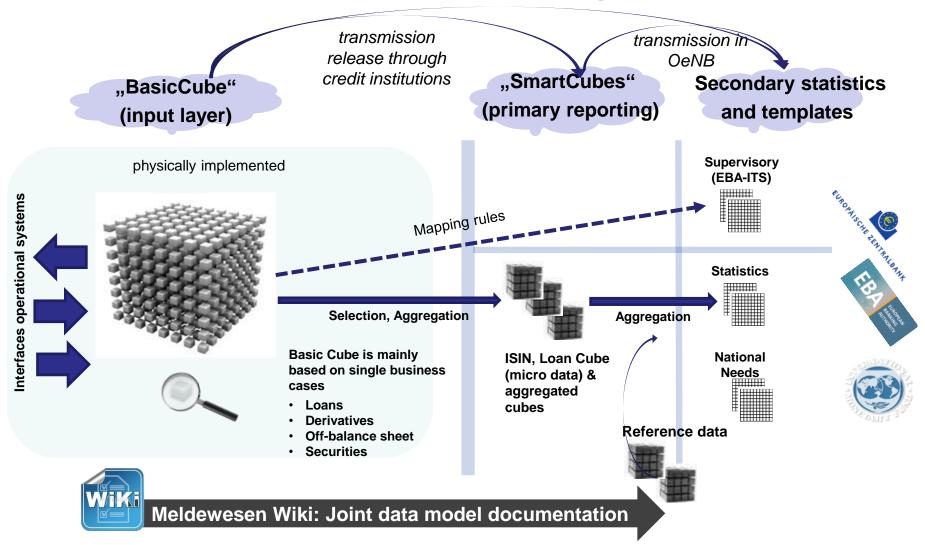
## The Role of BDD, ERF and SDD







## Components of the Austrian integrated data model

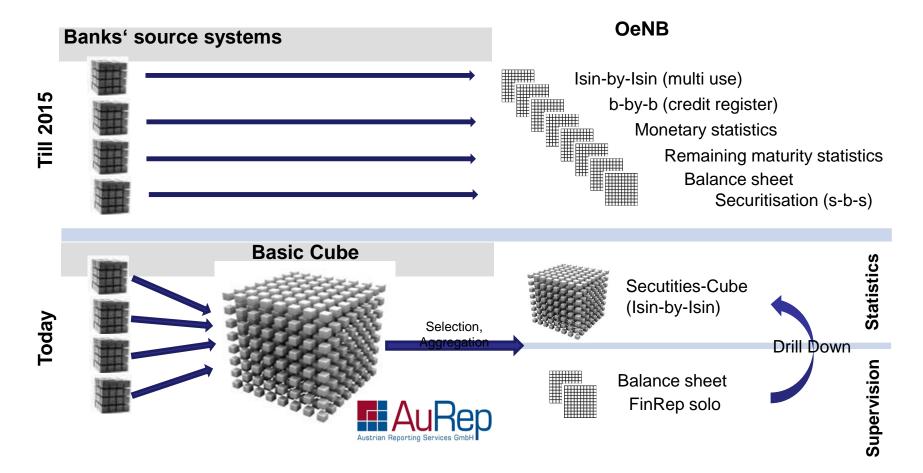






#### **Evolution of data collection in the OeNB**

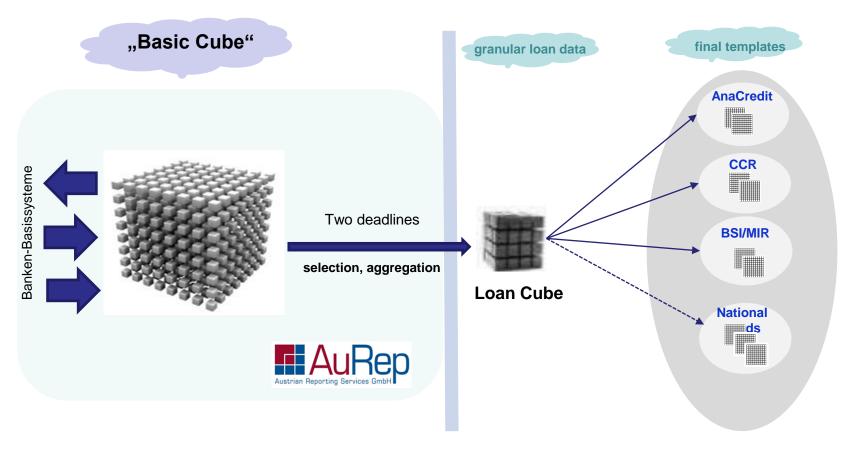
Using the example of unconsolidated securities assets of banks







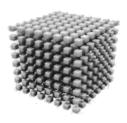
## Reporting of AnaCredit



- Loan data are collected only once and used for different purposes
- Stepwise approach: CCR und AnaCredit will be integrated in a first step, other requirements like BSI/MIR in a second step







## **Basic Cube (~ Input Layer)**

- Provides an exact, standardised, unique and hence unambiguous definition of individual business transactions and their attributes
- Establishes a harmonised database model at a very granular level
- Consistency, the absence of redundancy and ease of expandability are key features of the Basic Cube
- ... Has been developed jointly by banks and the OeNB, but OeNB staff will not be allowed to access the Basic Cube
- Will be the basis for (almost) all reporting obligations and it is the harmonised basis for additional data requests
- ... Is not a legally binding but banks committed to its implementation in a cooperation agreement





## **Expectations on the new data model**



Multi-dimensional cubes allow the **re-use of data** for different needs



More **flexibility** in reporting and analysis



Consistency of input- and output data (internal, external reporting)



More clarity regarding definitions and "automatically" higher quality through Basic Cube



**Reduction of costs** for the whole market (i) to apply new requirements and (ii) for quality assurance



**Passive data** – less burdensome for both sides and better response times in case of ad hoc requests

- It's too early to judge whether all expectations can be fulfilled
- However, first cube reporting and AnaCredit modelling meetings give evidence that we are on the right way





## Advantages/Challenges for banks

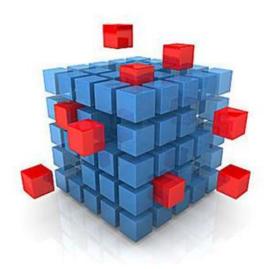
- ➤ Precise, consistent specifications → easier implementation
- ▶ Less redundancies → less comparisons and inquiries from OeNB
- ➤ No **burdensome ex-post corrections** of aggregated reporting templates
- Higher flexibility in case of new requirements
- Higher efficiency regarding the implementation of ad hoc requests
- Consistency between internal and external (management) reporting
- Rethinking in organisation and processes of reporting
- Not the aggregated final reporting template (e.g.: FinRep, BSI) but the single business case is in focus
- Less degrees of freedom in implementation





## Components of a successful paradigm change

- Integration of all organisational units with standardised data collection tasks as a first step
- > Top management support
- Integration of contents and detailed definition of requirements
- Transparent communication
- Inclusion of banks concerning the development
- Stepwise approach and a well planned transition period with a parallel testing phase



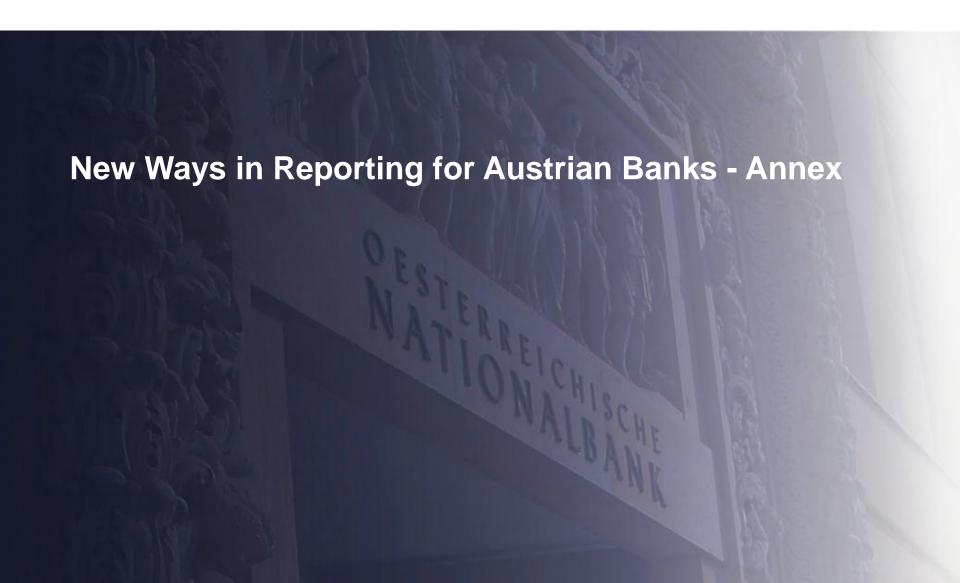




#### **Conclusions**

- Integrative data model of OeNB represents a paradigm shift in bank supervision and statistical data remittance
- ➤ It requires on both sides (OeNB, reporting banks) a rethinking with regard to existing reporting processes and ...
- i... jointly developed innovative solutions in the areas of data processing and quality assurance
- It fosters two-way understanding und transparency of the reporting process
- > Finally, it will lead to
  - higher data quality
  - less redundant data deliveries, and to
  - higher flexibility in case of new requirements
  - expected lower costs

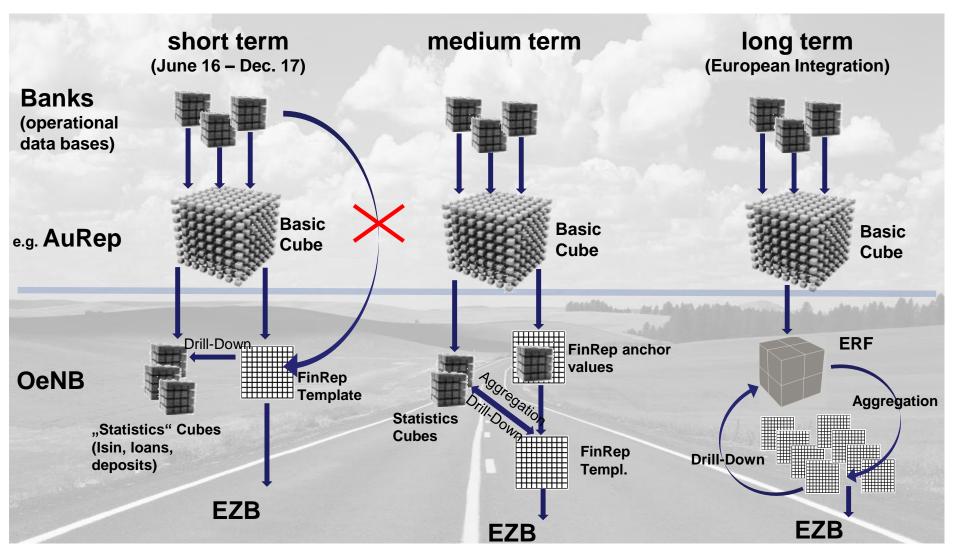








## Stepwise implementation of regulatory reporting requirements using the example of FinRep solo







## **Data quality**

- Medium- to long term improvement of data quality with less costs/efforts for the whole market is expected, because ...
- the use of reporting data for internal purposes will increase banks' own interest in high quality reporting data
- precise definitions und clear specifications lead to less inquiries from banks and to better results
- ➤ a central implementation concentrates efforts and leads to unique solutions → simplifies the communication between banks and OeNB
- the data model requires better quality at the level of a single business case, whereby quality problems are solved at the root
- redundancy-free collections minimise the efforts of burdensome ex post comparisons





## **Specific challenges - OeNB**

- Higher compilation efforts in the OeNB
- > **Dependencies** between processes due to integration
- Increasing data volume
- Higher complexity of processes, acknowledgement messages, analysis
- Maintenance of the data model documentation
- Higher responsibility due to precise data model and mapping rules
- New quality assurance methods
- Higher Know How needs with regard to the banking business
- Legal boundaries with regard to integration of different requirements
- Initial costs



# Regulatory reporting à la française : the Banque de France Data Lake

**Jacques FOURNIER** 

Director General Statistics
Banque de France

## THE GLOBAL CRISIS HAS LET TO A CONSIDERABLE GROWTH OF REQUESTS FOR DATA

- All national stakeholders, the media, the general public as well as researchers ask for more and more data, in particular granular data
  - The same applies to international organizations (ECB, BIS, IMF, OECD, ethical agencies, ...)
  - Our own staff and researchers have also growing requests
- Our reflection at the Banque de France:
  - If we do not address those requests, 'bad data will throw out good ones',
    - Garbage In-Garbage Out: especially true for data
    - The NCB has the means and the knowledge to deliver reliable intelligence at the micro-economic level
  - Manage, manipulate and leverage on terabytes of data: paradigm shift: we cannot work as before, otherwise we will be snowed under with data of mediocre quality
    - o DG Statistics is where to answer the challenge: DQM is its job, IT use for statistics also
    - Has to be done in one place: cost-saving, effectiveness
  - Innovation is necessary to develop not the today but tomorrow system :

## **⇒** the DATALAKE is the new frontier

# THE BANQUE DE FRANCE IS THE "HUB" FOR ALL NATIONAL MONETARY AND FINANCIAL DATA

- The Banque de France DGS is in charge of all steps in the value chain of data processing:
  - collecting,
  - monitoring,
  - ordering,
  - analyzing
  - disseminating financial and monetary data for all national and international applicants.
- The BDF DGS is in particular in charge of:
  - balance of payments,
    - monthly economic forecasts,
    - financial inclusion,
    - savings assessments,
    - monetary and financing statistics (participate to the monetary and financial stability committees chaired by the Governor)

# CURRENT AND FUTURE CHALLENGES CALL FOR INNOVATIVE SOLUTIONS

- The observation: the multiplication of statistical requests in the future is not hypothetical but certain
- For obvious reasons of effectiveness, innovative solutions, usable by every needs are suitable.
- The integration and mutualisation of data management tools provides a pragmatic approach able to meet short-term challenges
  - Ensure the high level of quality of a wide range of data collected from large cross-border banking groups
- Through a series of projects achieved by DG-Statistics, Banque de France has already acquired a wide-ranging expertise in the statistical processing and analysis of granular data

## ONEGATE

- Since 2010, a single point of entry (portal One Gate) for all data collected by the Banque de France and NSA (national supervisory authority) from financial institutions, non financial corporates, households, insurance companies,...
- A dedicated platform for data collection :
  - Various formats accepted (XML, XBRL, CSV)
  - Management of high volume (size limit > 2 Gb per file)
  - Ability to manage up to 20 000 users and 1500 files / day
  - 200 000 files received and processed / year

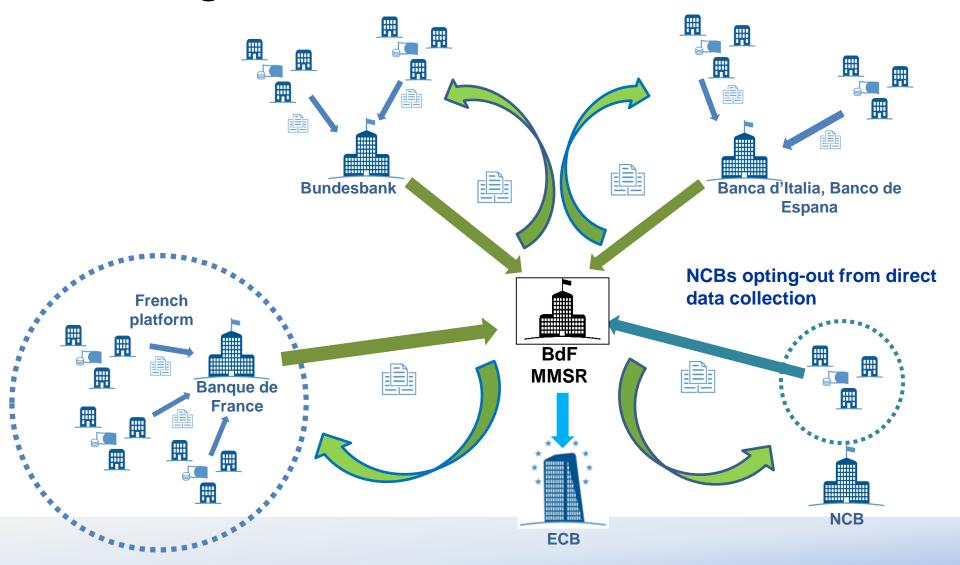
# MMSR (Money Market Statistical Reporting)

On behalf of the ECB, the BDF DGS has developed, and is running, as of April 1, 2016, the transactional platform for the Eurozone data collection for the MMSR

- The 52 largest credit institutions of the Euro Zone
- Reporting of transaction by transaction data, daily frequency
- Banque de France is responsible for the gathering, 'cleansing', checking data coming from all countries
- 'Big Data' solution for data processing
- 50 000 transactions recorded / day
- By 19 september: over 3 500 000 transactions received and processed by the Banque de France



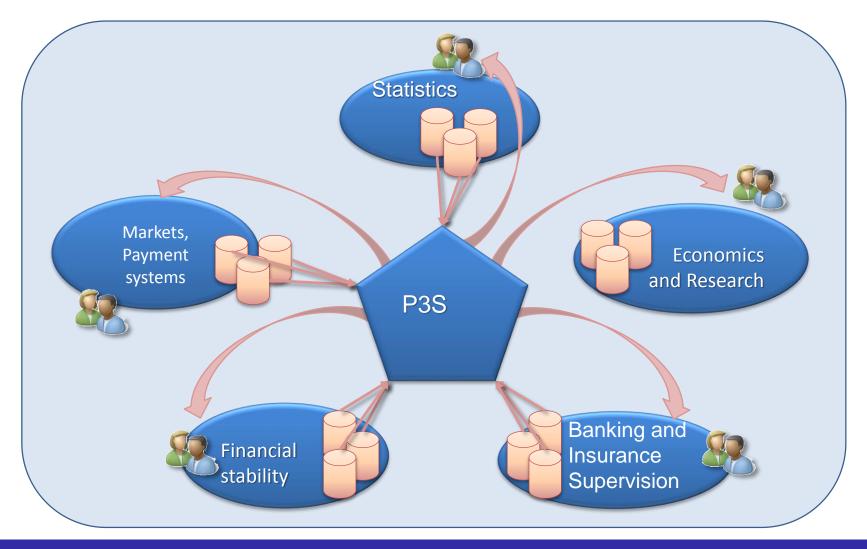
## MMSR: global architecture



# P3S (Pooling and Sharing Statistical Series) – 1/3

- Pooling data within the BDF....
  - To gather (granular) data on financial institutions and nonfinancial corporations ...
  - ... collected by the Banque de France and the NSA (ACPR)
  - ... while respecting confidentiality rules
  - ...to allow enhanced analysis for all involved business lines
    - Offering access to internal users on a 'need to know' basis
    - Drop the culture of "silos" in order to take advantage of the multi-purpose nature of data: prudential, monetary, macrofinancial, macro-economic.

P3S (Pooling and Sharing Statistical Series) – 2/3



# P3S (Pooling and Sharing Statistical Series) – 3/3

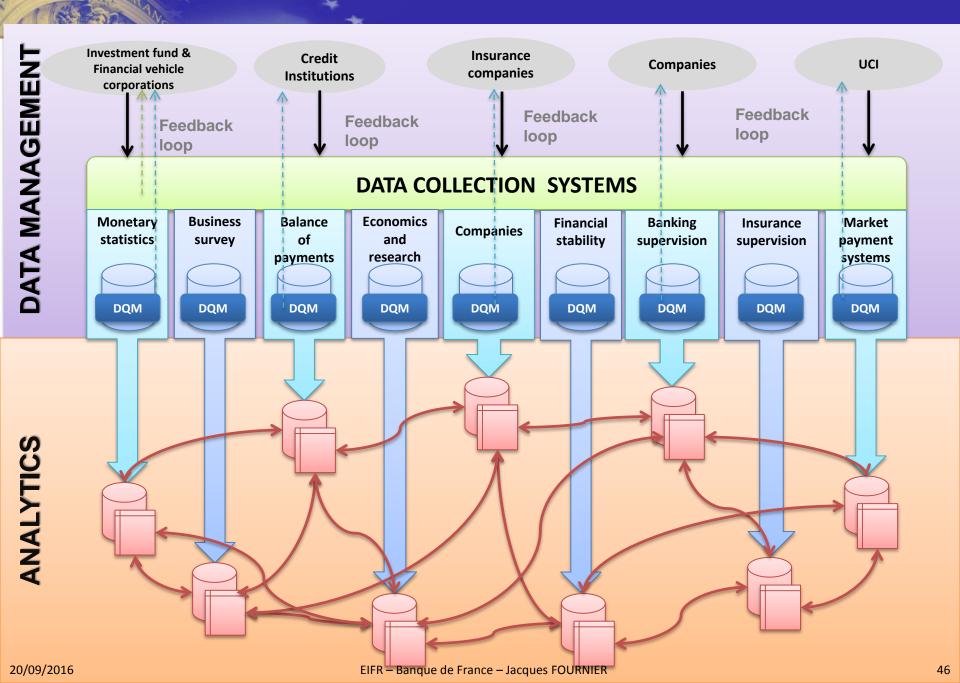
- Technological background
  - A solution based on open source « Big Data » technology
  - An up-to-date search engine (ElasticSearch)
  - A Not Only SQL (NoSQL) DataBase well suited for the storage of heterogeneous data
  - Main differentiator : all formats are accepted (SDMX-ML, XBRL,..)
  - 400 million series already stored in the database

## A NEW PROJECT AT THE BANQUE DE FRANCE

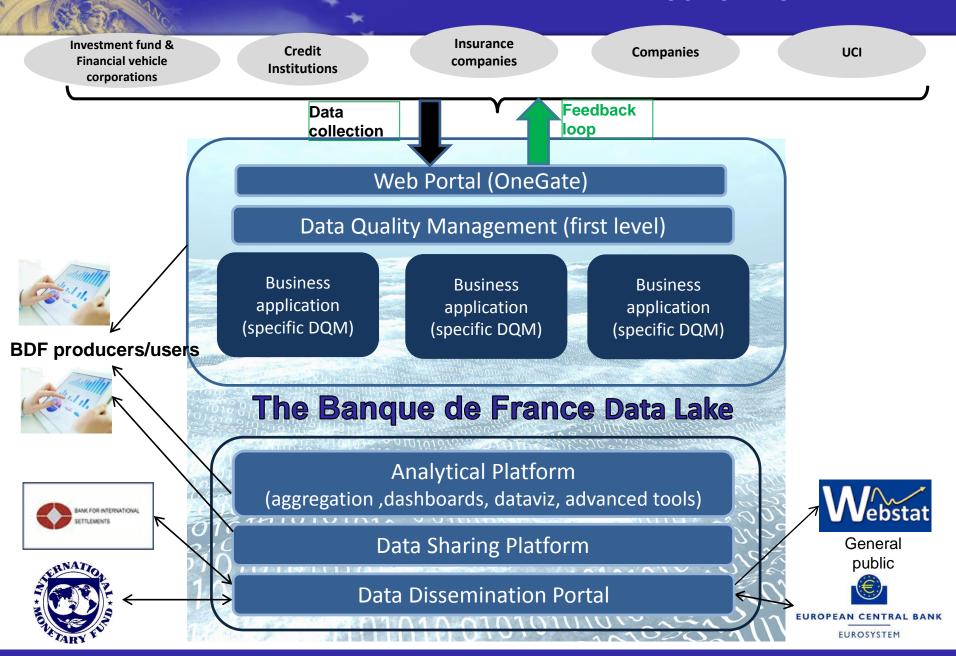
## Our next step: the DATA LAKE:

- The industrialization of the data management process throughout the production cycle in a context of massive data must be broadened. This requirement is at the heart of the Datalake project:
- Development of automated systems for immediate data quality management with feed-back loops to reporting agents
- Development of analytical tools tailored to the large datasets on financial institutions and non-financial corporations collected by the Banque de France and the ACPR (eg, machine learning algorithms, data visualization tools)
- The DG-Statistics is in charge of the project for the BDF lato sensu
- The BDF will dialogue with the industry at all stages of the development

# THE INFORMATION SYSTEM BEFORE THE 'BIG DATA REVOLUTION



## **DATA LAKE PROJECT: OVERVIEW**



## FINANCE DIVISION RISK DIVISION

# REPORTING DEMANDS IN A COMPLEX REGULATORY WORLD

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Head of Group capital ratio Reportings

janv.-17



### AGENDA

#### CONTEXT – REMEDIATION THROUGH REGULATION

### CHAPTER 01 FEEDBACK SINCE 2014

A. SINCE 2014: CHALLENGING ENVIRONMENT & EXPECTATIONS

### CHAPTER 02 A COMPLEX AND UNCERTAIN ENVIRONMENT

- A. THE SOURCES OF COMPLEXITY: REGULATORS / SUPERVISORS
- B. THE SOURCES OF COMPLEXITY: IMPROVEMENTS EXPECTED FROM BANKS

### CHAPTER 03 WHAT CAN BE IMPROVED

- A. EXPECTATIONS FROM THE BANKS TOWARDS THE REGULATORS
- B. LEVERS FOR THE BANKS TO REACH REGULATORS EXPECTATIONS



#### **CONTEXT - REMEDIATION THROUGH REGULATION**

### The ongoing strengthening of regulatory supervision as a necessity

- · The crisis we went through during the last decade have demonstrated the weaknesses of both the supervisors and the banks in their ability to anticipate / cover all risks efficiently
- The increasing pressure of regulation has been a trigger for banks to
  - Strengthen their risk management framework. Liquidity being a good example
  - Increase the investments in IS upgrades
  - Fasten transformation of Finance and Risk divisions
- The strengthening of regulation and supervision is as well a necessity to give back confidence in banks

### That is leading to more homogeneity. The euro zone is now partially harmonized with the implementation of the SSM. A difficult tasks though since :

- National options and discretions remains numerous (140) and are still making it difficult for supervisors, investors, shareholder, etc. to compare banks
- Heterogeneity of the supervision models and reportings with the rest of the world makes it difficult for International Banks to comply with all regulators' requests
- Heterogeneity of the underlying accounting rules makes it difficult for prudential supervisors to reach homogeneity
- The new model of supervision for the Euro Zone intends to be far more intrusive



#### **CHAPTER 01**

## **FEEDBACK SINCE 2014**



#### SINCE 2014: CHALLENGING ENVIRONMENT & EXPECTATIONS

## 2014 the year of expectations with 2 major changes supposedly leading to simplification of the supervision set-up:

- Implementation of both the new capital requirements rules and reporting requirements.
  - Especially through FINREP / COREP, implementation of the min and the max required from banks / "aiming at rationalizing the requests without increasing the reporting costs for the Banks"
- For the Euro zone implementation of a single supervisory mechanism with the ECB as one supervisor for all major banks in replacement of all national supervisors leading to the SRA and AQR exercises

#### Two years after where do we stand on these changes:

- The ramping up of ECB as a supervisor is putting a huge amount of pressure and workload on banks
- The implementation of CRD IV reportings was only a minor part of the ongoing regulatory changes
- What has been implemented is already about to be reviewed and adapted through the new requests (Basle IV, IFRS9)
- On top of COREP and FINREP, new ad-hoc reportings have been requested by ECB or Basle Committee on a recurrent basis: part of the SRA exercise has been made recurrent through the quaterly STE reporting and Basle QIS has been significantly enriched



#### CHAPTER 02

# A COMPLEX AND UNCERTAIN **ENVIRONMENT**



#### THE SOURCES OF COMPLEXITY: REGULATORS / SUPERVISORS

#### This regulatory pressure appears to be at the same time:

#### Not properly coordinated:

- Studies are conducted in parallel by EBA and the Basle Committee on the same topics leading to a duplication of workload for the banks and a lack of clarity on the expectations
- The regulators roadmaps are not transparent enough for Banks

#### Sometimes leading to some inconsistencies:

- Does it really make sense to conduct at the same time studies on advanced methodologies used for RWA computation and on the review of the standard method; with a floor that can lead to the uselessness of the advanced methodologies?
- The way to deal with some products is not always the same in each reporting / indicator. For instance, the derivative netting methodology is different according to the indicator (leverage ratio, LCR, NSFR, accounting netting)

#### Hardly manageable by the regulators or by the banks:

- One could question the ability for banks, and regulators as well, to manage so many topics at the same time in a consistent way
- The instability of norms and the divergence between EBA ans Basle Committee rules makes it difficult and very time consuming to industrialize production process (NSFR or TLAC vs MREL for instance)

#### A bit intrusive on upstream processes like accounting:

- Regulatory production is highly dependent on Accounting production
- Regulatory requests are sometimes in contradiction with accounting processes in place
- One can guestion some of the ECB request that could be seen as invasive and outside of their legal framework of intervention



#### THE SOURCES OF COMPLEXITY: IMPROVEMENTS EXPECTED FROM BANKS

- Beyond the complexity of the regulatory environment, the increasing needs for information makes it harder for Banks to answer to all constraints with their current organization, IT systems etc.
  - Flexibility needed especially for Groups like Socgen with a lot of subsidiaries:
    - Increasing volume of ad-hoc or non stabilised requests
    - Ability to deliver IS tactical solutions in shorter period of time
    - Ability to change internal management rules quickly to adjust to new regulatory requests

#### Data accessibility and quality is more critical:

- More granularity and thinner aggregates requested
- More reporting axis requested
- Ability to access data
- New external data collection for risk drivers for instance

#### New computation expectations:

- Computation is requested with several methodologies on the same perimeter
- Ability to change parameters for simulation purposes

#### Ability to meet deadlines with always more constraints

- Shortening of deadlines and requests even during regulatory production period
- Increasing frequency of production put pressure on IS



#### CHAPTER 03

## WHAT CAN BE IMPROVED



#### EXPECTATIONS FROM THE BANKS TOWARDS THE REGULATORS

#### • Give more visibility to the banks on the regulatory target and roadmap through:

- A 3 to 5 years roadmap, shared with the banks, that plan ahead the studies that are considered
- A shared, coordinated -not competitive- work program between EBA and the Basle Committee:
  - Favouring a sequential approach (Basle Committee and then EBA) rather than a parallel one.
- The definition of a target in terms of reportings: anacredit type of reportings vs aggregated data based reportings
- Better integrate Bank's constraints through:
  - Ad-hoc requests properly planned ahead with reasonable remittance deadlines:
  - Implementing recurrent reportings should be considered when norms are stabilised / ratios are applicable
  - QIS should be proportionate to the stakes and the stability of the topic
- Avoid to pile up reportings on the same risk nature for aggregation axis reasons :
  - Anacredit initiatives are making sense under conditions
    - To give time for implementation
    - To stop investing in trying to adjust the current reporting framework to avoid waste of energy and money
  - To work on the coherence between the reporting framework on an individual basis and on a consolidated basis
  - Work on aligning FSB reporting requests with EBA or Basle Committee reportings



#### LEVERS FOR THE BANKS TO REACH REGULATORS EXPECTATIONS

## Regulatory monitoring: allowing management to have a global view and a sense of the impacts related to the various topics under regulators' review

- · Reinforcement of the internal regulatory monitoring structure
- · Cross requests reporting impacts assessment
- Active participation to regulatory networks and lobbying instances

## Organisation: centralisation of regulatory production together with internal management production reportings

- The regulatory information is more and more built up on accounting enriched with risk based information and then required a mix of risk and finance competences
- There are an increasing volume of adherences between the various regulatory production as well as with internal management reportings
- · Investments are so significant it is more efficient to focus them on one single team

### Governance: strengthening of the governance around raw data and indicators

- Data quality governance: raw data must have a dedicated governance to ensure their quality
- Metrics governance: regulatory production could not be considered on a stand alone basis, it has to be steered. Regulatory indicators have to be integrated within the risk management framework



#### LEVERS FOR THE BANKS TO REACH REGULATORS EXPECTATIONS

- Data quality: ensuring quality of all raw data at the most granular level
  - A shared data model for all the entities with normalised definition.
  - A structured and standard control framework ensuring data quality
- Information System: enhance production tools for regulatory production and provide ability to access detailed information at a very granular level by users
  - A key success factor for regulatory production is the granularity of the data available and the ability "to play" with all the attributes
  - Reporting production tools enhancement in order to conduct the necessary analysis and reportings/ratios correction
- Process Steering: reinforcement of the monitoring of processes performance



Thank you!



## **Prochains évènements**



Atelier – Les sociétés de gestion face au défi des rémunérations avec OPCVM V	22 septembre 2016 Paris
Matinale – EBA : Les défis d'une régulation prudentielle équilibrée avec Isabelle VAILLANT	23 septembre 2016 Paris
Matinale – « Call for Evidence »: lessons & actions with John Berrigan	28 septembre 2016 Paris
Séminaire – Credits « alternatifs » : Responsabilités ?	4 octobre 2016 Paris
Séminaire – 4e Directive anti-blanchiment et financement du terrorisme : quelles avancées ?	7 novembre 2016 Paris
Conférence annuelle – Why Europe needs to finalize the Banking Union to leverage a competitive CMU?	15 novembre 2016 Paris
Matinale – " Market Risk and capital requirements: a hide and seek game with Jean-Paul Laurent"	3 décembre 2016 Paris
Séminaire – Les rendez-vous de la régulation financière et de la conformité	8 décembre 2016 Paris

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