Heraeus

Use of SAP Commodity Management for the precious metal trading activities of the Heraeus Group

Christian Veith – SAP Mining and Metals Forum – Darmstadt – October 2014

Agenda

1. Overview Heraeus Group
2. Overview Heraeus Precious Metal Trading

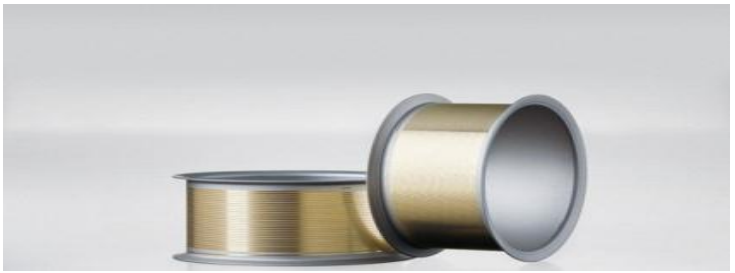
3. Precious Metal Trading As Is - SAP Environment
4. Precious Metal Trading To Be – SAP Environment

5. Summary New SAP system TRD companies
6. Current project status – Roll-Out new SAP for TRD companies

Overview Heraeus Group

- A globally active precious metals and technology Group
- Family-owned for over 160 years
- Active in global markets characterized by a clear differentiation lasting growth and attractive returns

- Over 12,500 employees in more than 110 companies*
- 2013 product revenue: €3,6 billion
- 2013 precious metals trading revenue: €13,5 billion

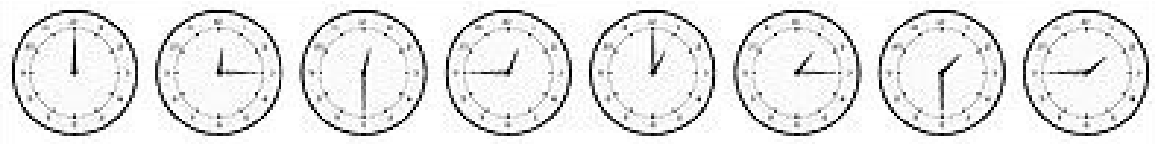


* as of: December 31, 2013

Overview Heraeus Group

- Heraeus's business groups
  - Precious Metals
  - Materials and Technologies
  - Sensors
  - Biomaterials and Medical Products
  - Quartz Glass
  - Specialty Light Sources

Overview Heraeus Precious Metal Trading



SHANGHAI | HONG KONG | HANAU | NEW YORK

GLOBAL TEAM LOCAL EXPERTISE

AROUND THE GLOBE AROUND THE CLOCK

CLOSE TO THE MARKET CONNECTED TO THE CUSTOMER

ALL SEVEN PRECIOUS METALS

GOLD | SILVER | PLATINUM | PALLADIUM | RHODIUM | RUTHENIUM | IRIDIUM

Overview Heraeus Precious Metal Trading

VALUE CHAIN

LOOP SERVICES

ALL-ROUND SOLUTION
Integral collaboration with Heraeus Recycling and Heraeus Product Businesses

=> Enhanced convenience and efficiency for clients

DIVERSE CUSTOMERS
Extensive customer base of leading companies across industries and regions

=> Exceptional flexibility and client understanding

RELIABLE PARTNERSHIPS
Relationships with mining companies, industrial users, traders, financial institutions and investors
=> Great insight into all aspects of the value chain

INFRASTRUCTURE

„ONE-STOP-SHOP“

ALL LOCATIONS PROVIDE

- **Trading & Hedging Services**
- **Back-Office Operations**
- **Worldwide Logistics & Deliveries**
- **Transfers via Weight Accounts**
- **Financing**
- Market Analysis & Research

BENEFITS
- Fast operational workflows
- Leveraged knowledge from immediate interaction along the operational process

QUALITY

SUSTAINABLE SOURCING

INTERNALLY
Metals from extensive refining activities of the Heraeus Group

EXTERNALLY
Metals from primary producers providing stability of supply in times of volatility & uncertainty

SUPPLY CHAIN POLICY
Stringent adherence to our Supply Chain Policy ensures sourcing from legitimate and ethical sources

LEADERSHIP

ONE STEP AHEAD

READY FOR THE FUTURE
At the forefront of market watch and analysis to anticipate market events and reactions

SUPPORTING DECISION-MAKERS
Internal and external know-how sharing to provide direction and support in decision making

MEMBERSHIPS
- LBMA & LPPM
- IPMI & IPA
- Silver Users Association
- German Precious Metals Association

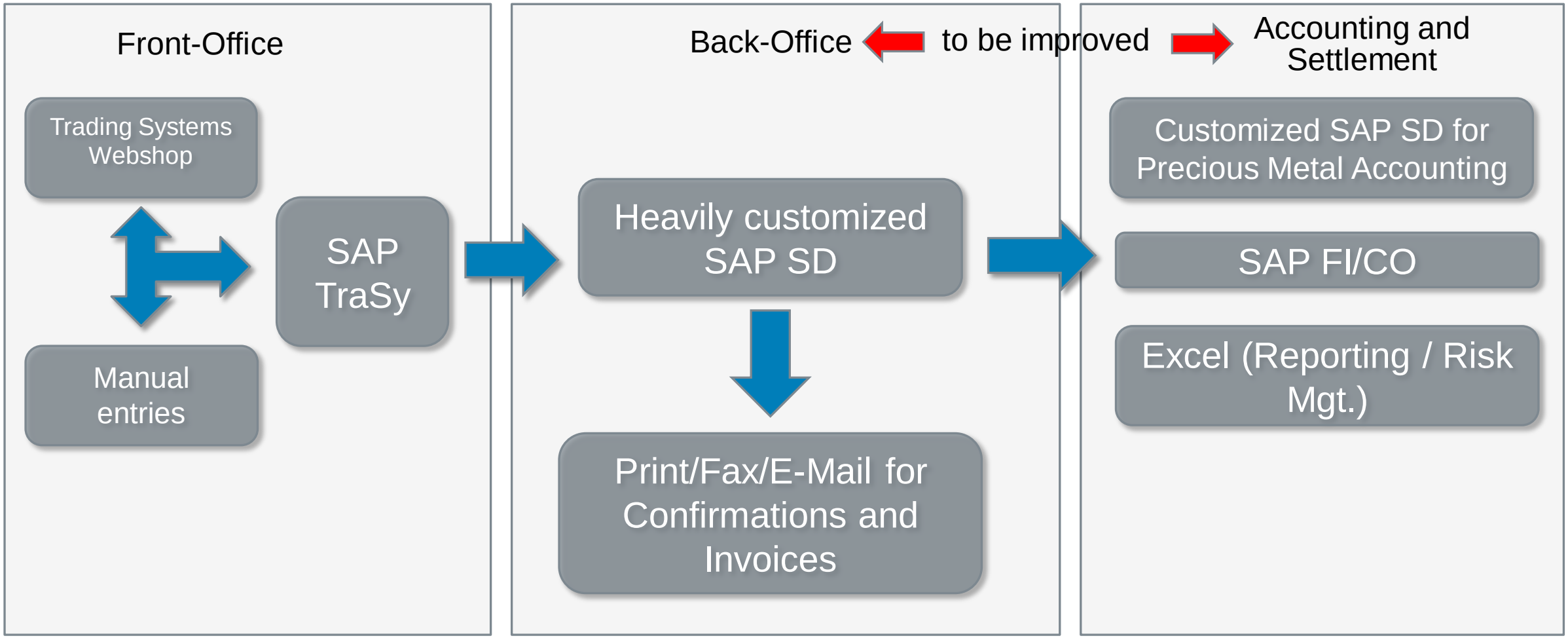
=> We actively participate in trade organizations and are a recognized leader in the market

GOLD | SILVER | PLATINUM | PALLADIUM | RHODIUM | RUTHENIUM | IRIDIUM

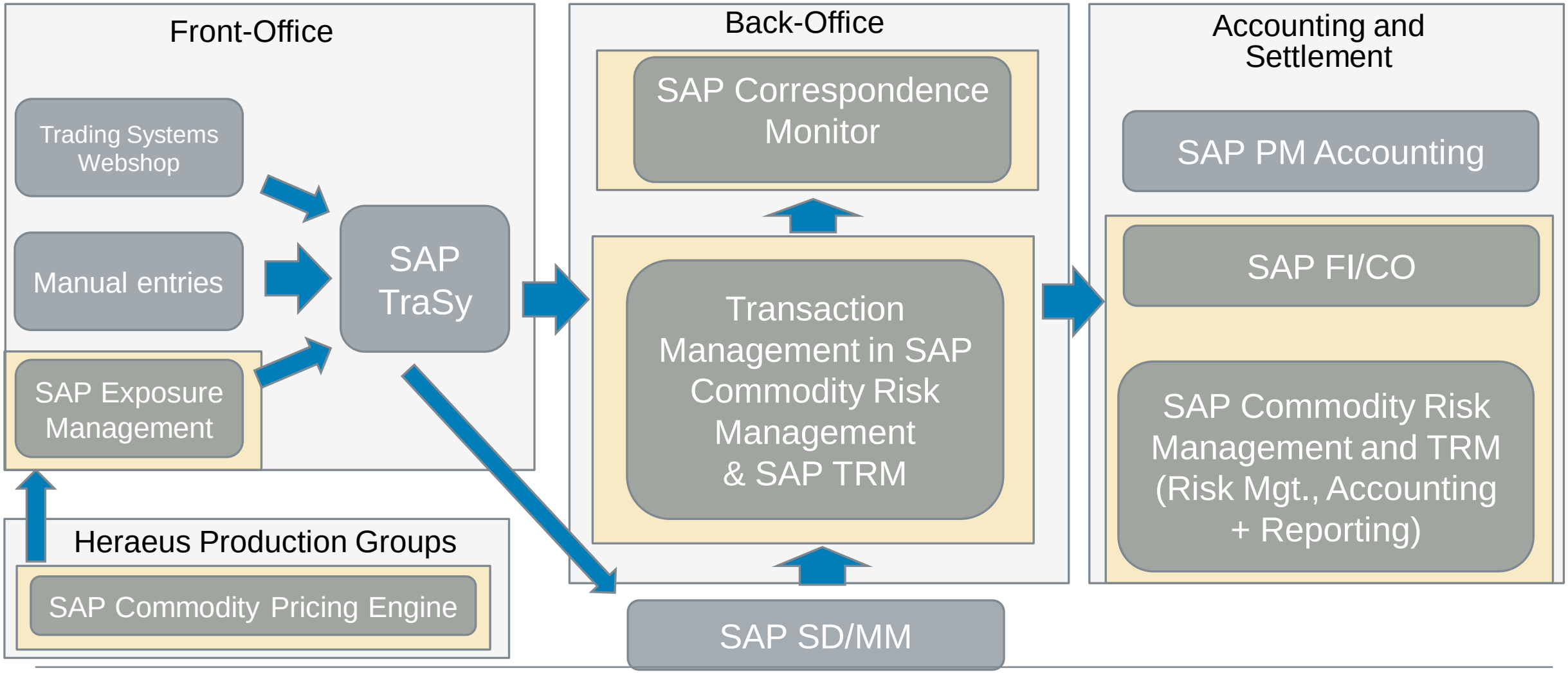
Heraeus SAP History

- Heraeus became SAP customer in 1981
- Heraeus Precious Metal Trading implemented highly modified version of SAP SD and custom developed trading system (TraSy) and precious metal accounting system to support precious metal trading processes.
- In 2012 Heraeus started project Magellan to globally harmonize all processes in one single SAP system.
  - Decision to use SAP Commodity Risk Management and SAP TRM for trading
  - Heraeus production groups use SAP Commodity Procurement and Sales including the Commodity Pricing Engine (CPE) for commodity pricing.
  - Integration between CPE and Exposure Management is used to extract commodity price exposures and then transfer and manage them within the Heraeus Precious Metal Trading group.

Precious Metal Trading As Is - SAP Environment



Precious Metal Trading To Be – SAP Environment



Precious Metal Trading To Be – SAP Environment

- Use of SAP Standard wherever possible
- Main areas of enhancements within SAP Standard (Part I):
  - Front End System:
    - Interface with Heraeus-own-developed SAP Front-End/User Interface for Trading (TrasY)
  - Transaction Processing:
    1. Product type / Transaction type to separate the various kind of transactions
    - Interface SAP TRM with SAP SD/MM for physical handling of precious metals
    2. Enriched tab strips in SAP Commodity Risk Management to handle precious metal specific data
    - Link between SAP Commodity Risk Management and Heraeus developed Precious Metal Accounting system

Precious Metal Trading To Be – SAP Environment

- Main areas of enhancements within SAP Standard (Part II):

  - SAP Correspondence Monitor
  - 3 Development of Swift MT 600 format in the SAP Correspondence Monitor

  - Controlling/Accounting/Reporting
    - Sales/Cost of Sales Recognition – Process for PM transactions
    - 4 Precious Metal Risk reporting to cover specific Heraeus requirements

Heraeus Precious Metal Trading Product Type set up in SAP 1

Source

TraSy Front End
Producttypes:
PM Deals,
FX Deals
(59 Product Types)

Treasury Inhouse Bank
Product Types:
FX Deals
Money Market Deals

Transaction Types Precious Metal Trading

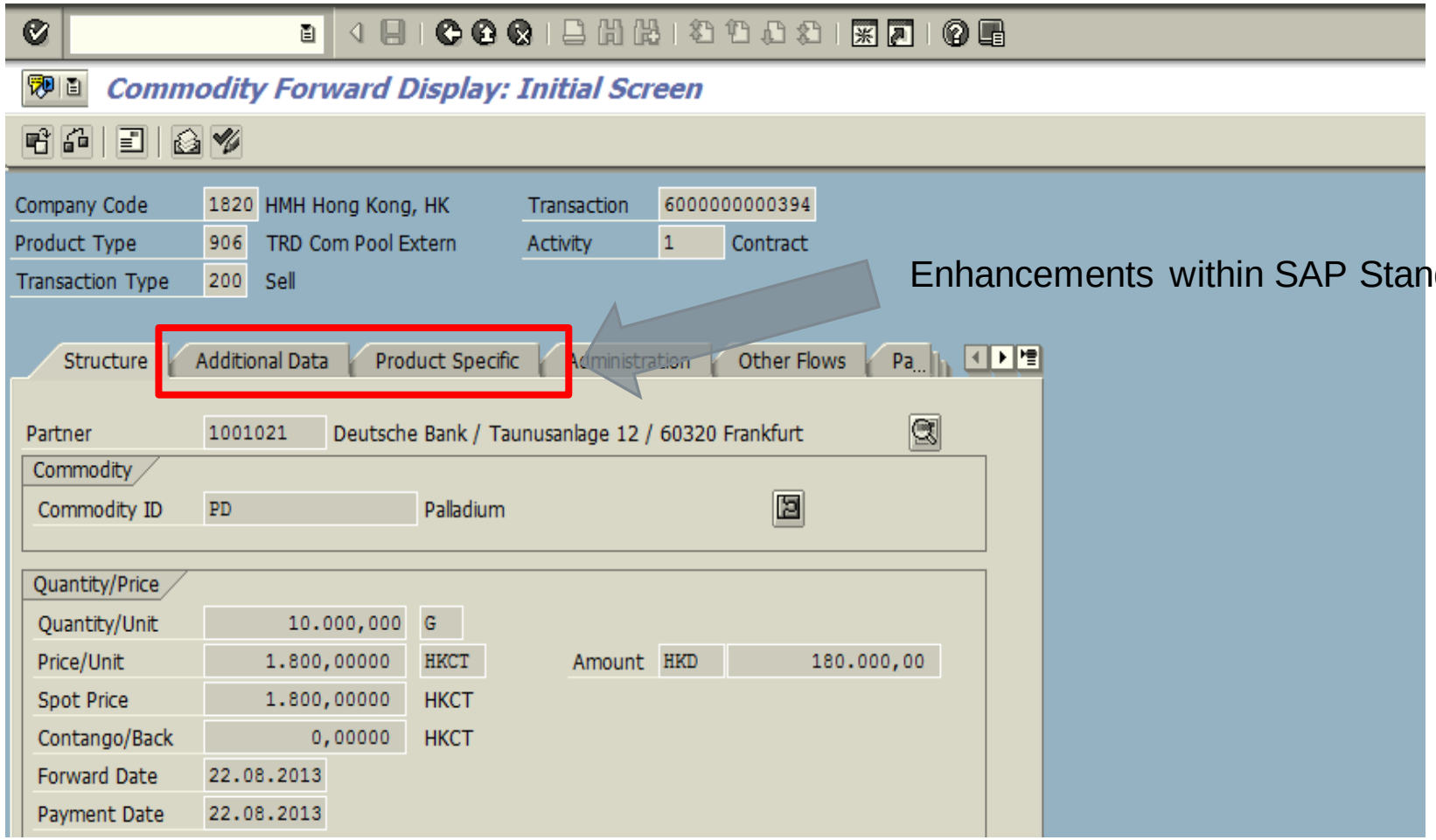
- PM Deals Physical
- PM Deals Pool Account
- PM Deals Cash Settled
- PM Transfers
- PM Loans
- PM Options
- Generic PM Flow
- Generic FX Flow
- FX Deals
- FX Options

Internal/External Partners
Correspondence
Consolidation
Netting
Authorizations

Different Accounting Requirements
IFRS
Local
Netting

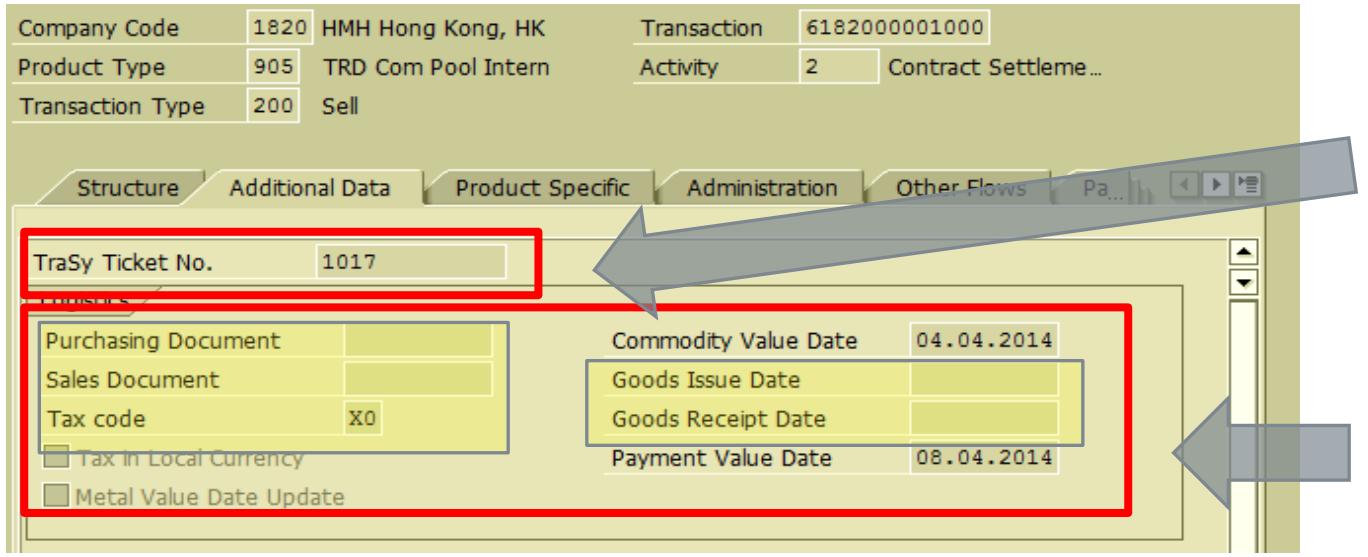
Different steps for processing within the SAP Modules
SD, MM, FICO, TRM

Enriched tab strips to handle precious metal specific data 2



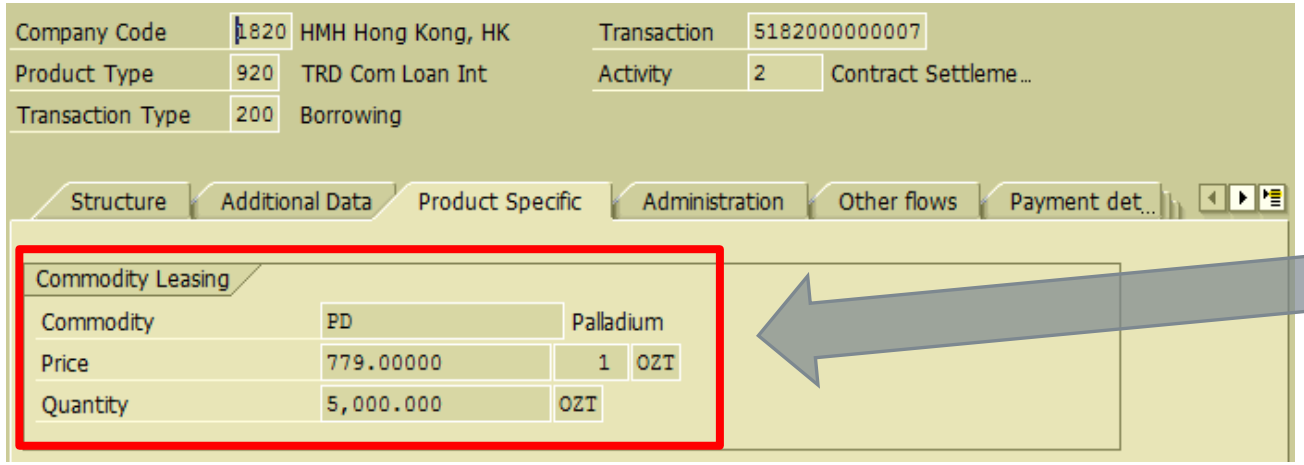
Enhancements within SAP Standard

Enriched tab strips to handle precious metal specific data 2



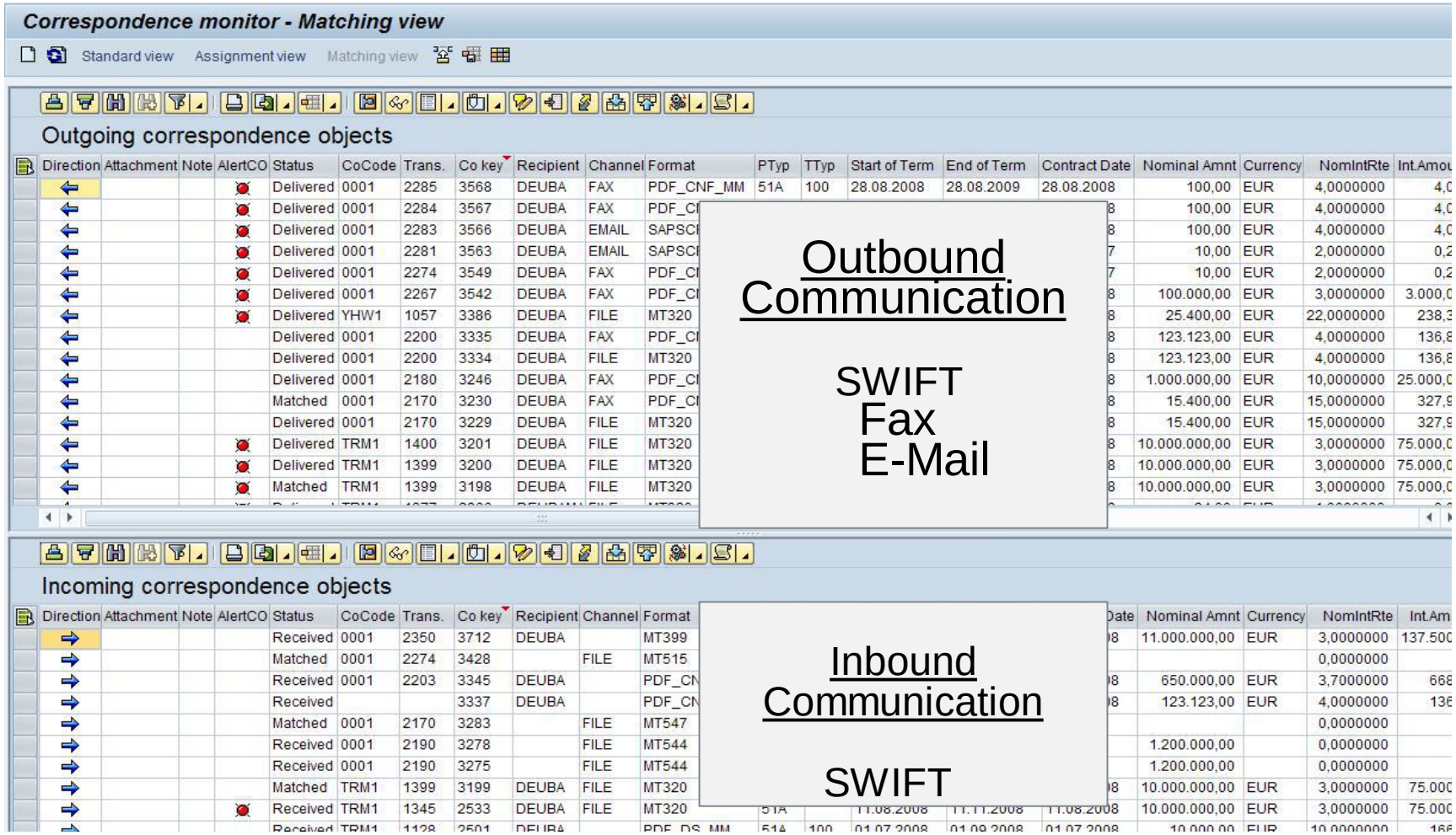
TrasY Integration

SAP SD / MM - Logistics Integration

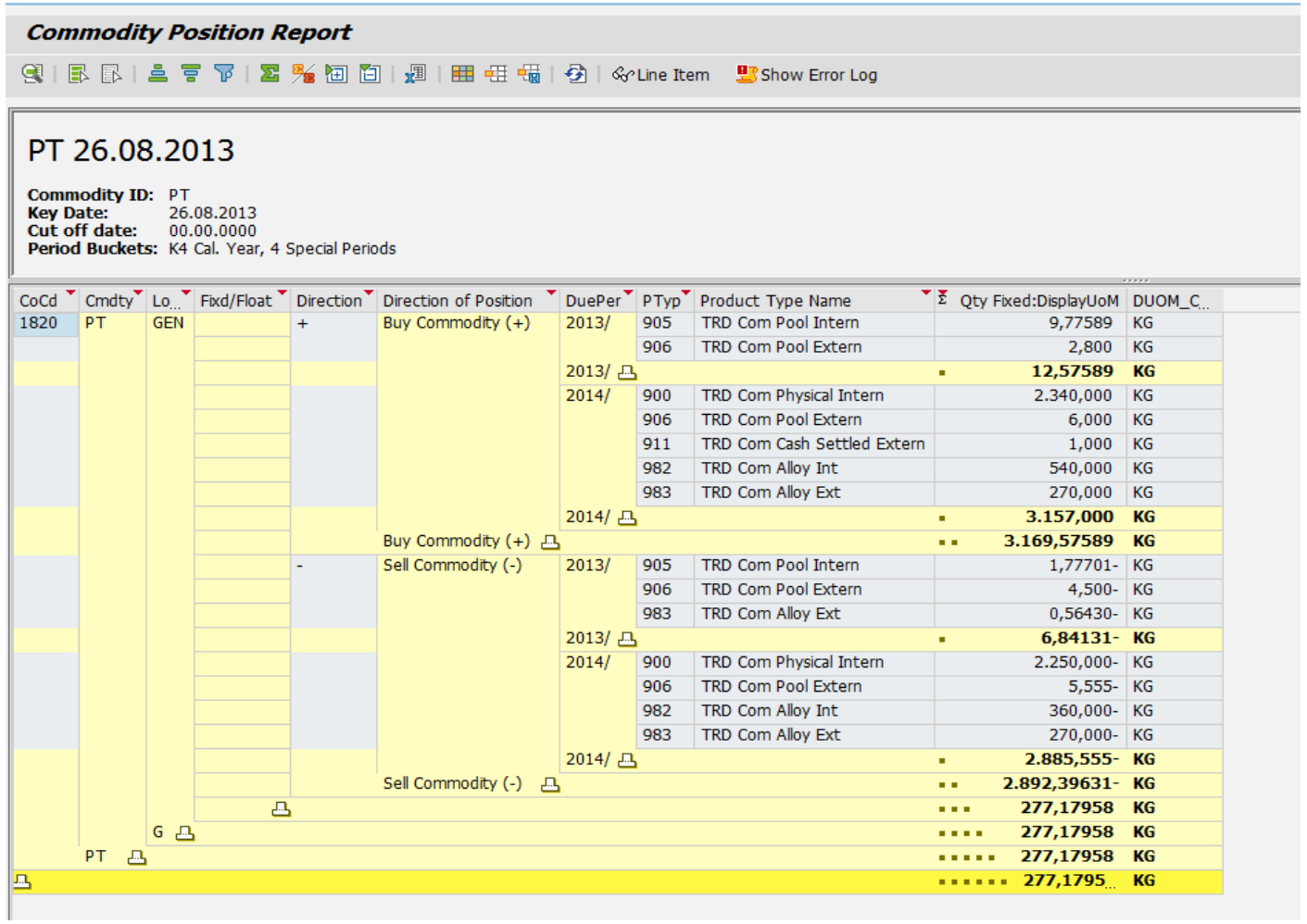


PM Leasing Enhancement using SAP Money Market

SAP Correspondence Monitor 3



Riskreporting: Precious Metal Position Report 4



Commodity Position Report

Line Item | Show Error Log

PT 26.08.2013

Commodity ID: PT
Key Date: 26.08.2013
Cut off date: 00.00.0000
Period Buckets: K4 Cal. Year, 4 Special Periods

CoCd	Cmdty	Lo...	Fixd/Float	Direction	Direction of Position	DuePer	PTyp	Product Type Name	Qty Fixed:DisplayUoM	DUOM_C...
1820	PT	GEN		+	Buy Commodity (+)	2013/	905	TRD Com Pool Intern	9,77589	KG
							906	TRD Com Pool Extern	2,800	KG
						2013/			**12,57589**	**KG**
						2014/	900	TRD Com Physical Intern	2.340,000	KG
							906	TRD Com Pool Extern	6,000	KG
							911	TRD Com Cash Settled Extern	1,000	KG
							982	TRD Com Alloy Int	540,000	KG
							983	TRD Com Alloy Ext	270,000	KG
						2014/			**3.157,000**	**KG**
					Buy Commodity (+)				**3.169,57589**	**KG**
				-	Sell Commodity (-)	2013/	905	TRD Com Pool Intern	1,77701-	KG
							906	TRD Com Pool Extern	4,500-	KG
							983	TRD Com Alloy Ext	0,56430-	KG
						2013/			**6,84131-**	**KG**
						2014/	900	TRD Com Physical Intern	2.250,000-	KG
							906	TRD Com Pool Extern	5,555-	KG
							982	TRD Com Alloy Int	360,000-	KG
							983	TRD Com Alloy Ext	270,000-	KG
						2014/			**2.885,555-**	**KG**
					Sell Commodity (-)				**2.892,39631-**	**KG**
									277,17958	**KG**
		G							**277,17958**	**KG**
	PT								**277,17958**	**KG**
									277,1795...	**KG**

Summary – New SAP system for precious metal trading companies

Major achievements to be realized with the new SAP environment:

- Management of global exposure within Exposure Management
- More automation in the area of communication (Integration of Swift MT 600, SAP Correspondence Monitor)
- Replace (heavily customized) SAP SD solution with SAP Commodity Risk Management and SAP TRM Standard + Enhancements
- Eliminate weaknesses in the area of accounting, controlling and risk management
- Increase transparency by implementing SAP Standard

Summary – New SAP system for precious metal trading companies

- Use SAP Standard processes for trading operations (For example: Create, Settlement, Post) wherever possible
- More flexibility in the future for upcoming changes in accounting
- Ability to participate with further SAP standard developements based on SAP Commodity Risk Management and SAP TRM (eg. EMIR)
- Close collaboration with SAP Group (SAP Consulting, SAP Custom Development and Solutions Team) to develop and implement the new SAP solution for Precious Metal trading activities.

Current project status – Roll-Out new SAP for Heraeus companies

- Go Live new SAP system trading company Hong Kong: 30 March 2014
- Go Live new SAP system Heraeus production company Singapore: July 2014
- Go-Live scheduled for Trading company in Shanghai: 01 Nov 2014
- Trading companies in New York and Hanau scheduled to Go Live until 30 June 2015

Thank you for your attention

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