



## Stichting NIOC en de NIOC kennisbank

Stichting NIOC ([www.nioc.nl](http://www.nioc.nl)) stelt zich conform zijn statuten tot doel: het realiseren van congressen over informatica onderwijs en voorts al hetgeen met een en ander rechtstreeks of zijdelings verband houdt of daartoe bevorderlijk kan zijn, alles in de ruimste zin des woords.

De stichting NIOC neemt de archivering van de resultaten van de congressen voor zijn rekening. De website [www.nioc.nl](http://www.nioc.nl) ontsluit onder "Eerdere congressen" de gearchiveerde websites van eerdere congressen. De vele afzonderlijke congresbijdragen zijn opgenomen in een kennisbank die via dezelfde website onder "NIOC kennisbank" ontsloten wordt.

Op dit moment bevat de NIOC kennisbank alle bijdragen, incl. die van het laatste congres (NIOC2025, gehouden op donderdag 27 maart 2025 jl. en georganiseerd door Hogeschool Windesheim). Bij elkaar zo'n 1500 bijdragen!

We roepen je op, na het lezen van het document dat door jou is gedownload, de auteur(s) feedback te geven. Dit kan door je te registreren als gebruiker van de NIOC kennisbank. Na registratie krijg je bericht hoe in te loggen op de NIOC kennisbank.

Het eerstvolgende NIOC vindt plaats op 18 maart 2027 in Arnhem en wordt georganiseerd door HAN University of Applied Sciences.

Reacties over de NIOC kennisbank en de inhoud daarvan kun je richten aan de beheerder:

R. Smedinga [kennisbank@nioc.nl](mailto:kennisbank@nioc.nl).

Vermeld bij reacties jouw naam en telefoonnummer voor nader contact.



# Enterprise Architecture within ING

## NIOC 2013

Henrik van Bruggen

Arnhem, 5 april 2013  
[www.ing.com](http://www.ing.com)

**BANKING - INVESTMENTS - LIFE INSURANCE - RETIREMENT SERVICES**



# Introduction

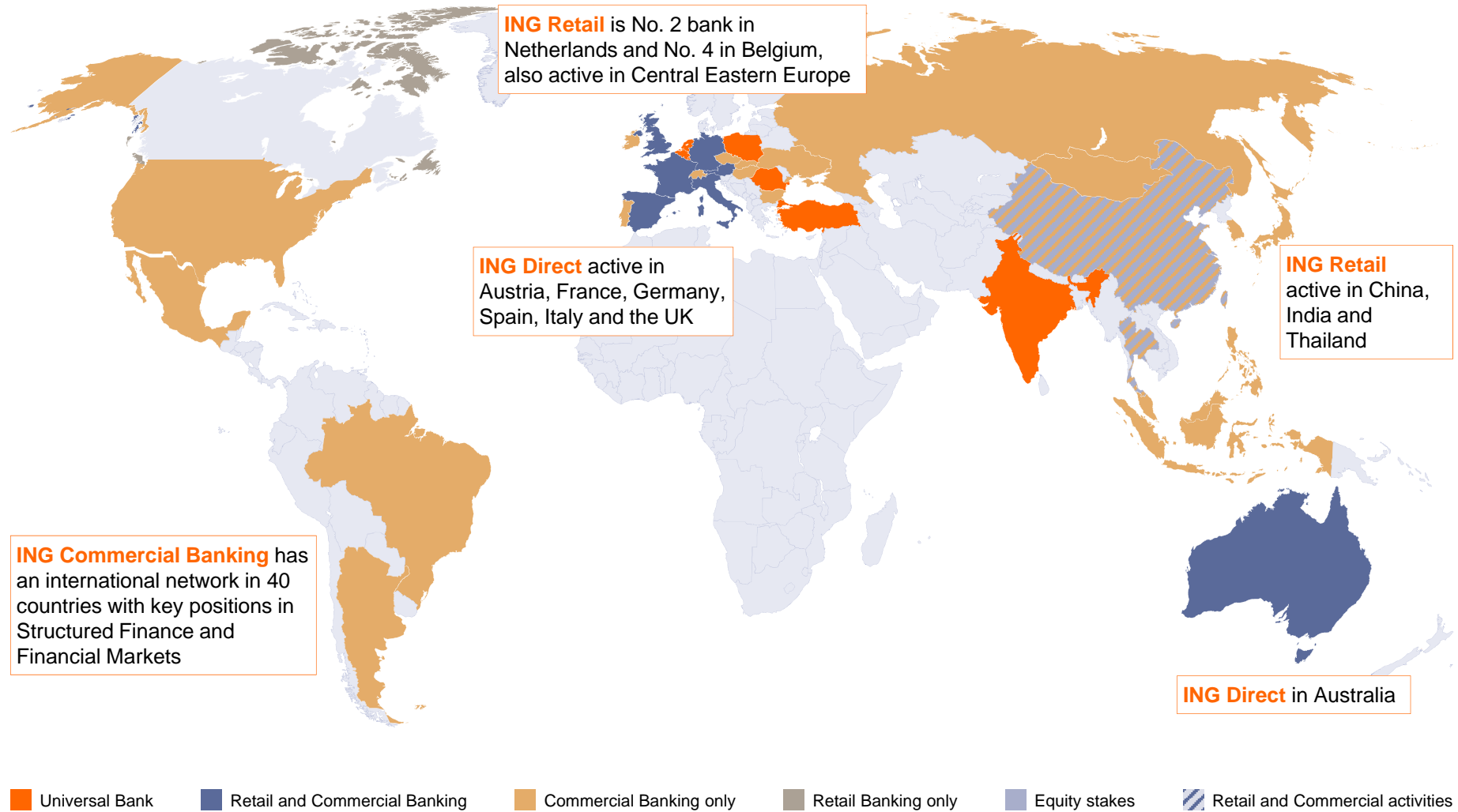
Distinguished Chief Architect ING bank

Application Architecture ING Netherland

Infrastructure Architecture Global ING

Since 1995 working for ING in various roles

# ING Bank worldwide





**Slide 4**

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**A1**

**Wordle.net**

Author; 12-11-2012

# What is architecture?

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Definition architecture ISO/IEC 42010: 2007 :

“The fundamental organization of a system, embodied in its components, their relationships to each other and the environment, and the principles governing its design and evolution.”

Architectuur dient om richting te geven aan ontwerp en realisatie van processen, organisatorische inrichting, informatievoorziening en technische infrastructuur van de organisatie

Architectuur is in deze zin dus een managementinstrument dat gebruikt kan worden om verandertrajecten te besturen

# Having *impact* with architecture....

It takes more than structuring and modeling on paper

- Create a Business Framework
- Constant dialogue with your business
- Communicate in a language your business understands
- Create an Architecture Framework
- Manage by architecture roadmaps
- Governance that supports your roadmaps
- Architects that Inform & Inspire
- .....



by creating simplicity....



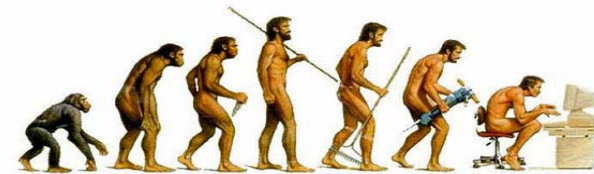
**Consumer view analogy**  
Outside in view — Infrastructure service equivalents



.... based on a clear DRIVER

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- *Our* business Strategy, who do we want to be...
- *Our* History (legacy), what made *us* today  
....
- Capabilities of IT, that what we can realize...



# Drivers of *our* Architecture

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*Our* business Strategy, who do we want to be

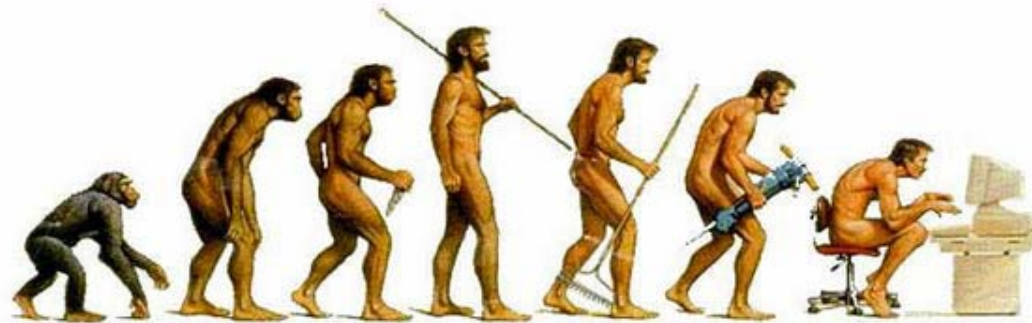
# Let's look at a couple of challenges for banks....



# ...we need other channels to build up trust... putting focus on our real-time customer view

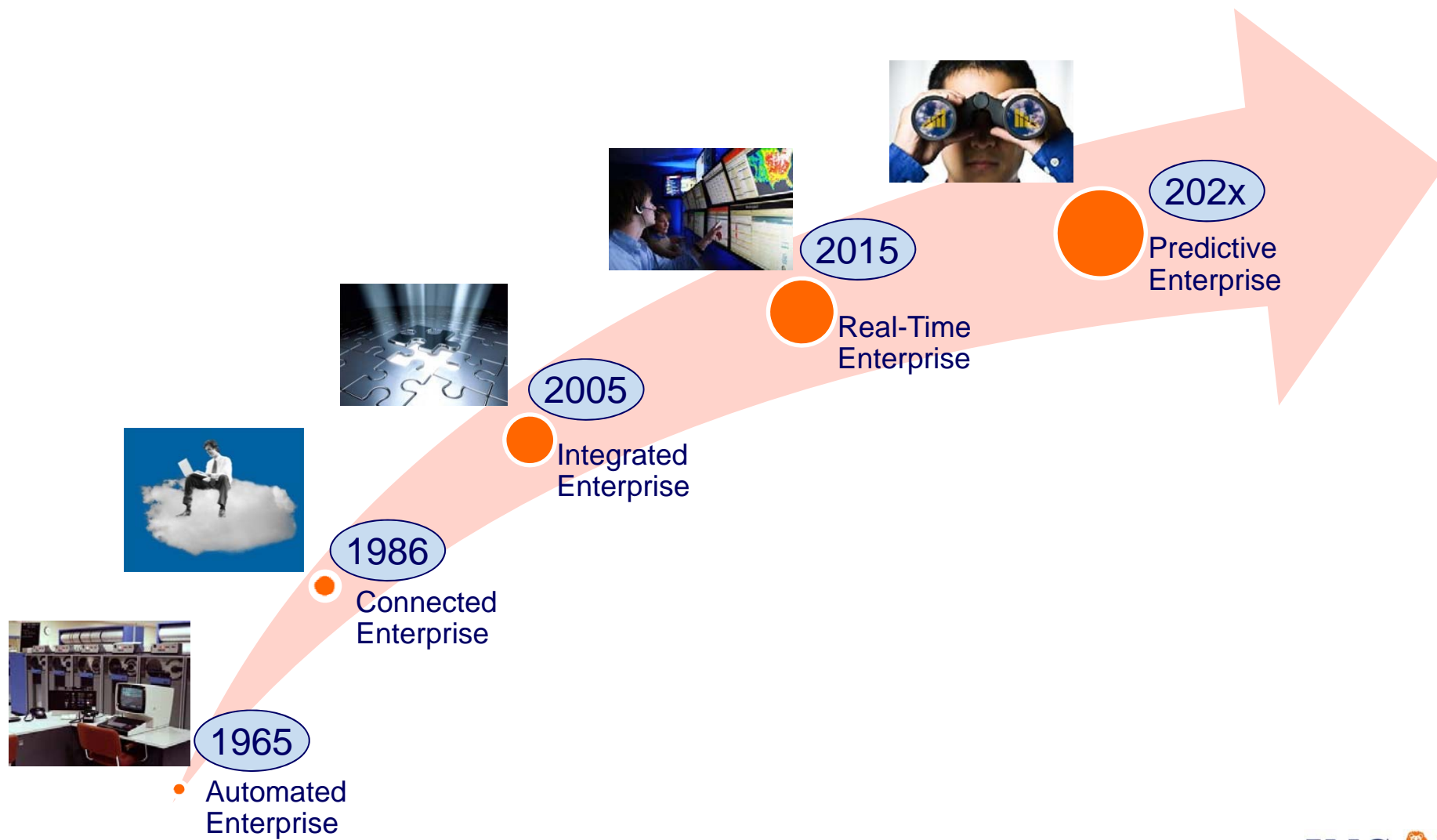


# Drivers of *our* Architecture



*Our* History (legacy), what made *us* today ....

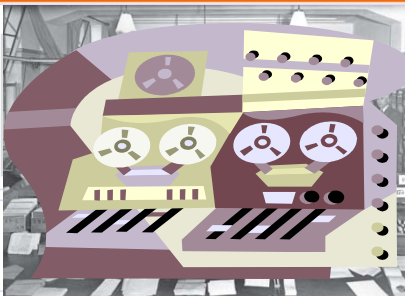
# Evolution as a Driver



# Automated Enterprise (1965)



Distribution Layer



Transactional Services

- Payments Execution Engine
- Clearing & Settlement Engine
- Securities Settlement Engine
- Logistic Currency Manager
- Securities Market Order Mngt

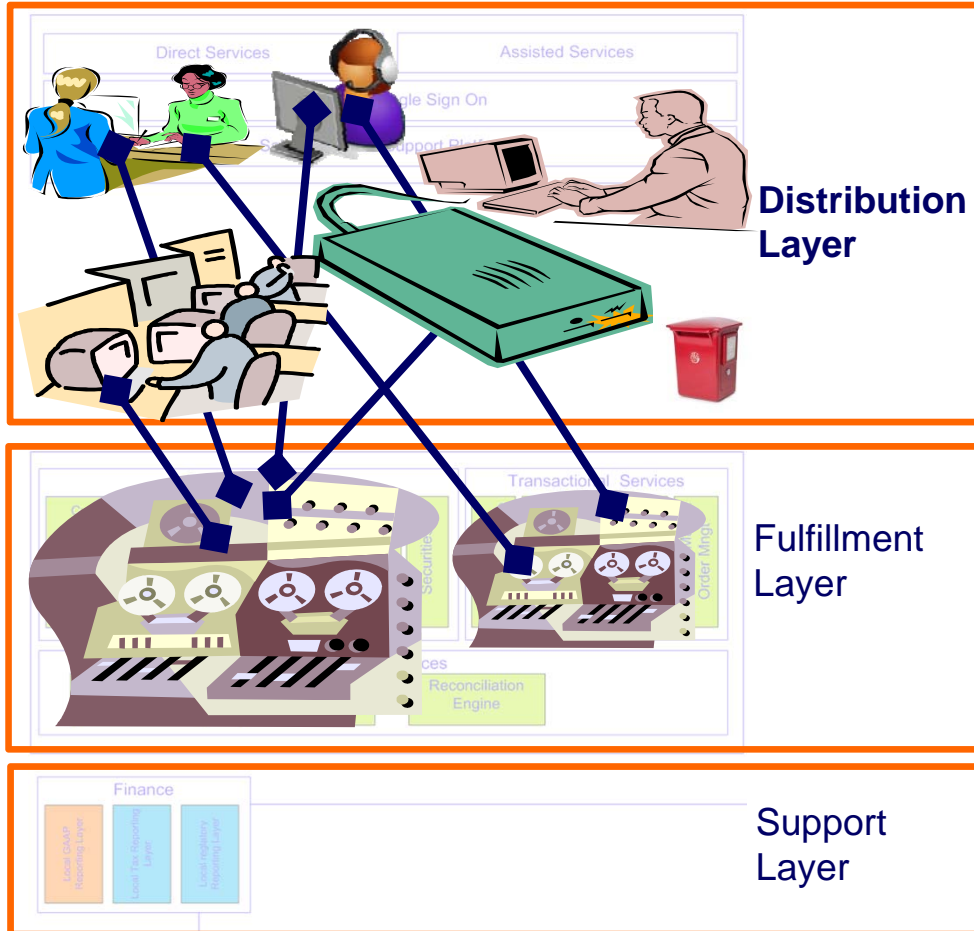
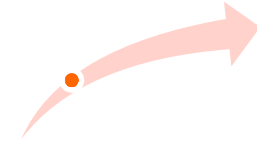
Reconciliation Engine

Fulfillment Layer

- Administration and booking of payments automated
- Drivers: growth and efficiency

ING's Logical Application Architecture Framework

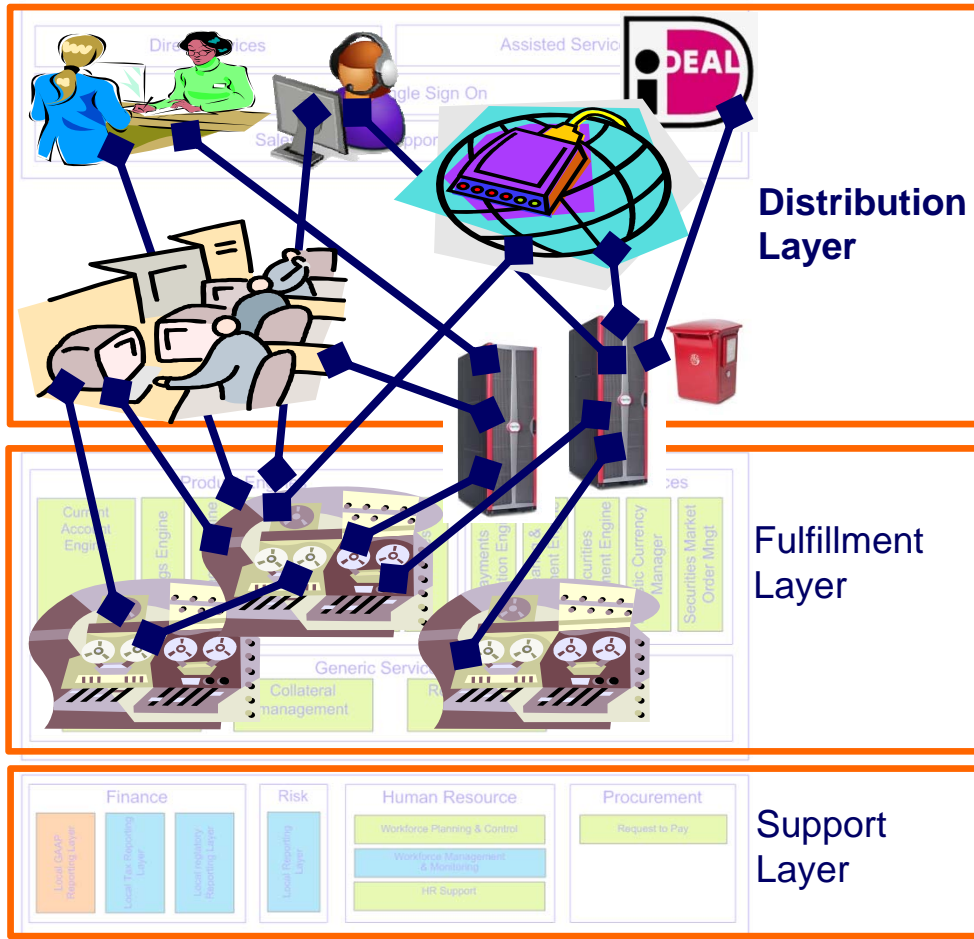
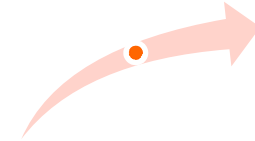
# Connected Enterprise (1986)



- Introduction of Girotel, payments; Direct Channel to the back office Systems
- Back Office became visible to customers (or not)
- Drivers: Speed & Convenience

ING's Logical Application Architecture Framework

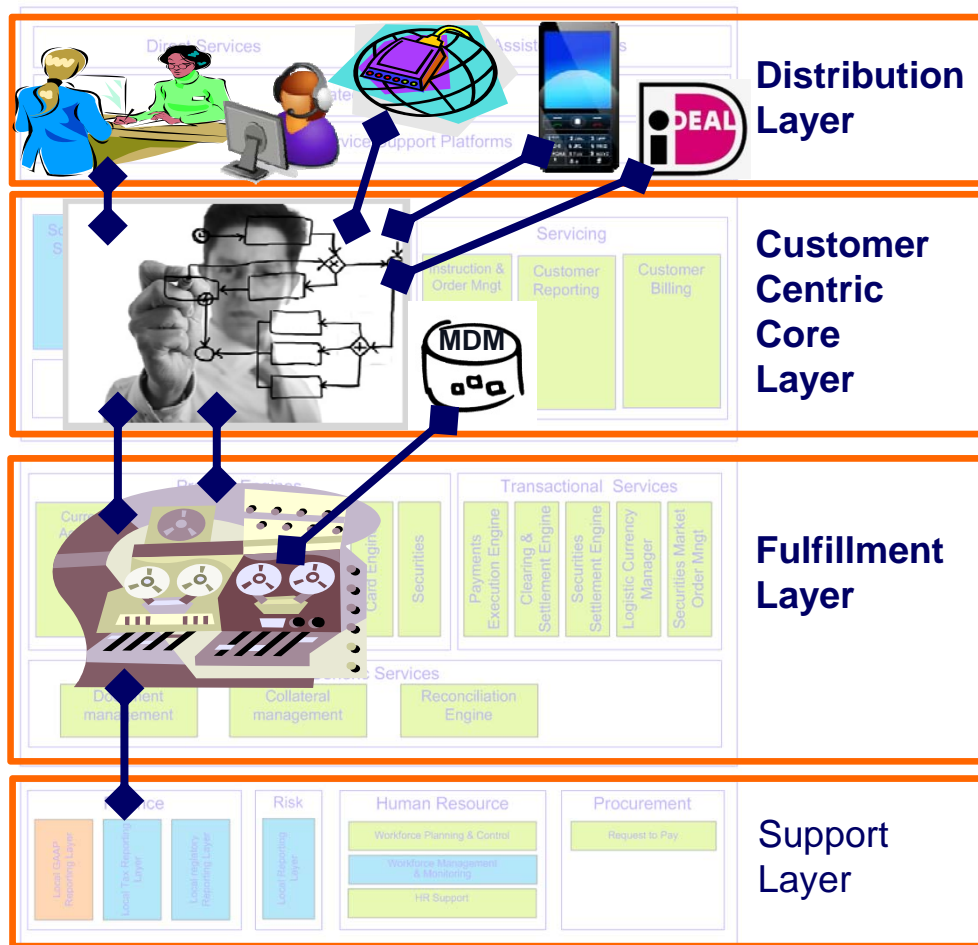
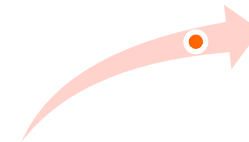
# Integrated Enterprise (2005)



- Multi Channel (7x24)
- Near Real Time by Portals
- Complex customer view
- High integration cost
- No STP

ING's Logical Application Architecture Framework

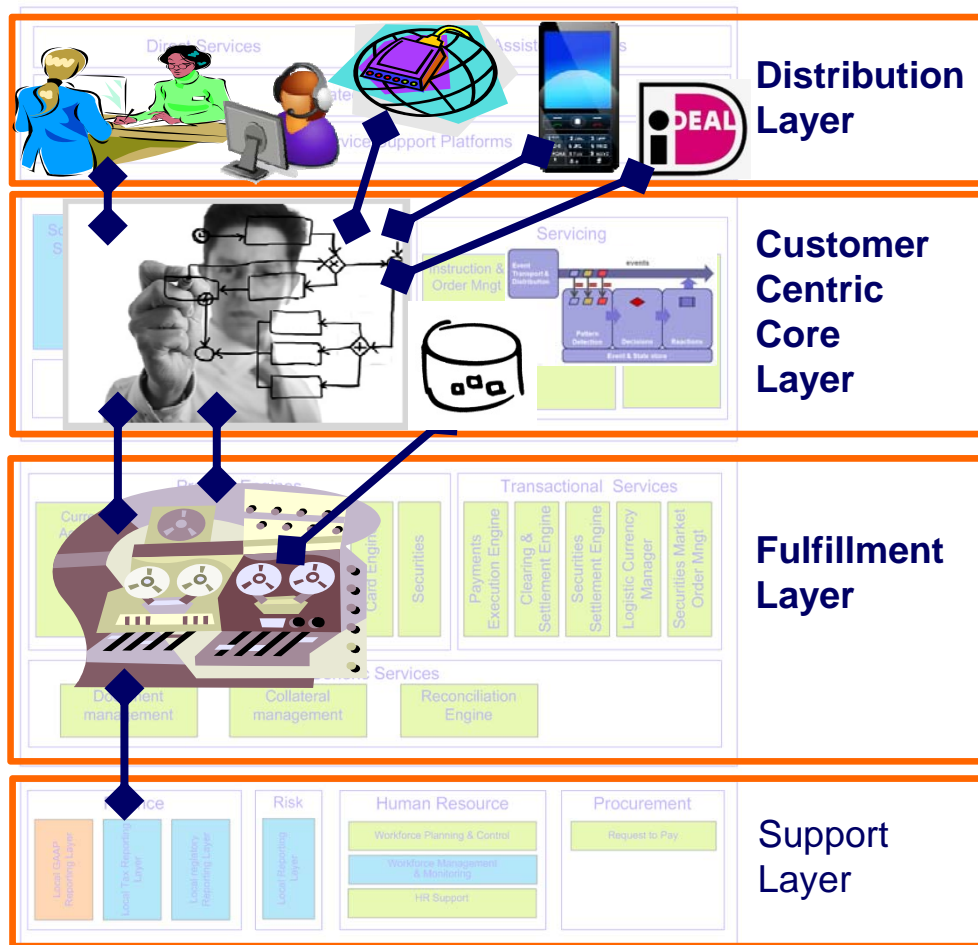
# Real Time Enterprise (2015)



- Multi Channel experience (7x24)
- **Mobile Channel (!)**
- Real Time & STP processes
- Flexibility by BPM technology
- Central Customer View
- Core Bank Package
- Agility in Development
- Lower integration costs

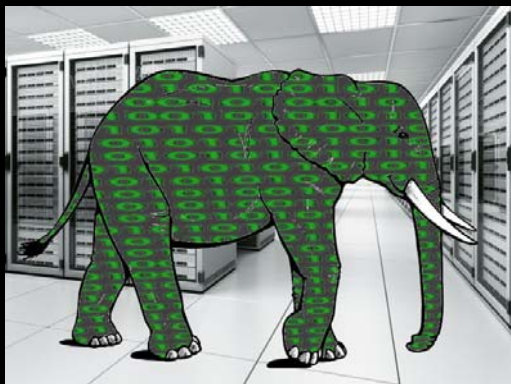
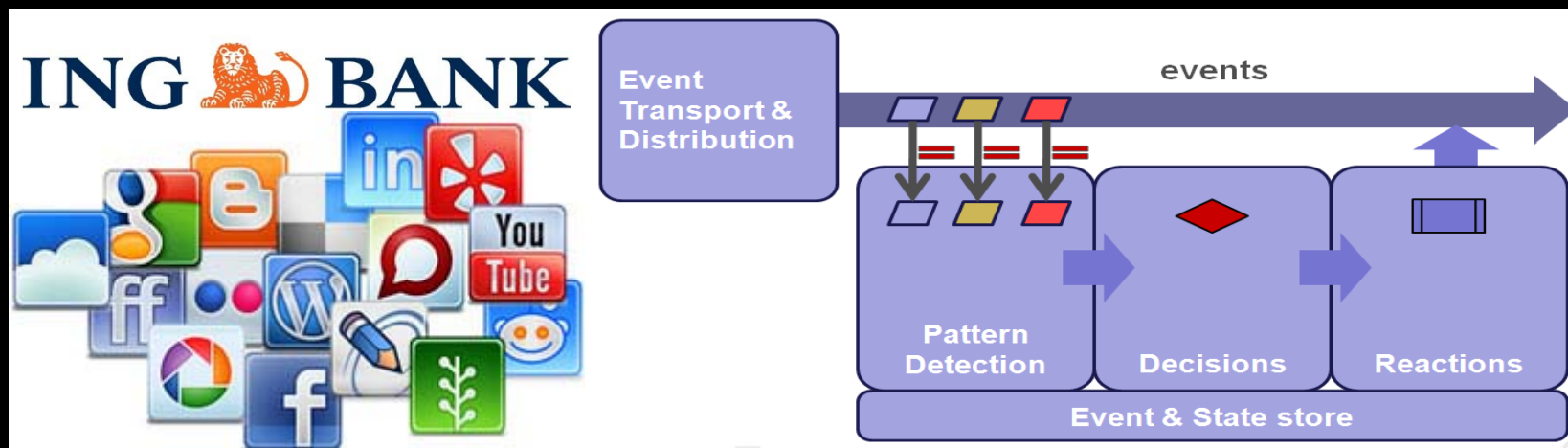
*required to take next step*

# Predictive Enterprise (202x)



- Multi Channel experience (7x24)
- Mobile Channel (GEO)
- Instant interaction
- Social Mining
- Use the information you have from your customer
- Active Fraud prevention

# Predictive Enterprise (202x)



# other elements that accelerate your business

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- Sandbox as soon as possible, together with your business
- Align Business, Application *AND* Infrastructure Architecture
- Be closely aligned with the Scrum Teams
- Always prepare the next step....

**This makes architecture DRIVE your business**

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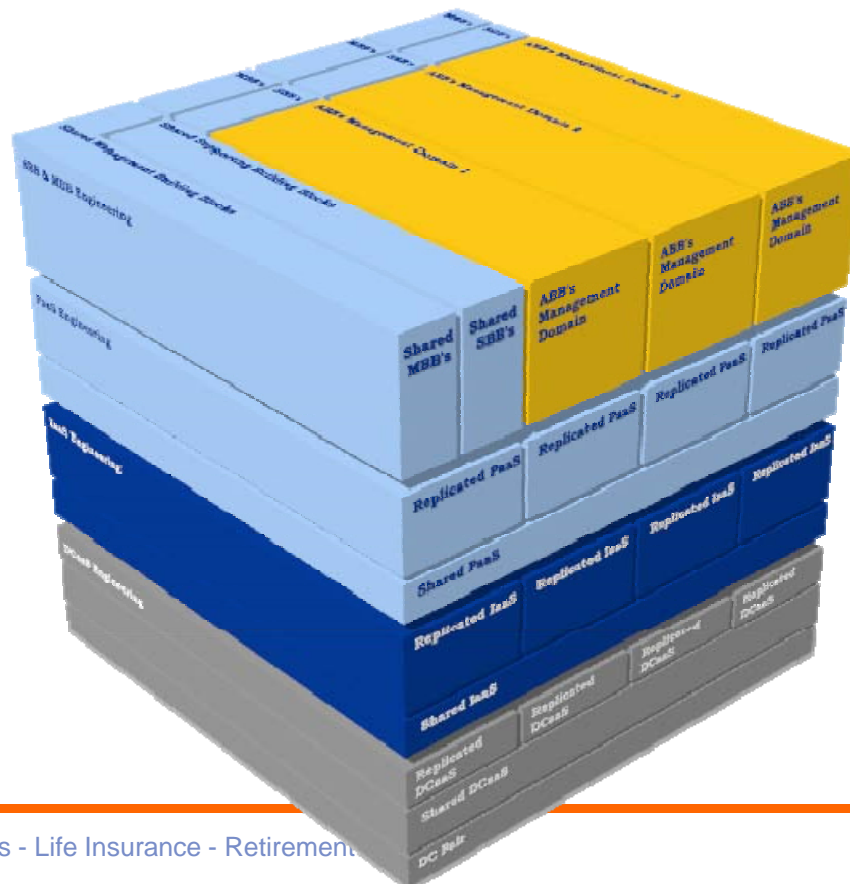
# Thank you!!



# Target state 2012-2017

Hybrid infrastructure services

## Application-, Supporting-, and Management Building Blocks (ABB's, SBB's and MBB's)



**DRAFT**