

Business Continuity  
on System z

## GDPS Project Task and Timeline example



Presenter: *JM Vandon*

Presentation Date: June 24th, 2010

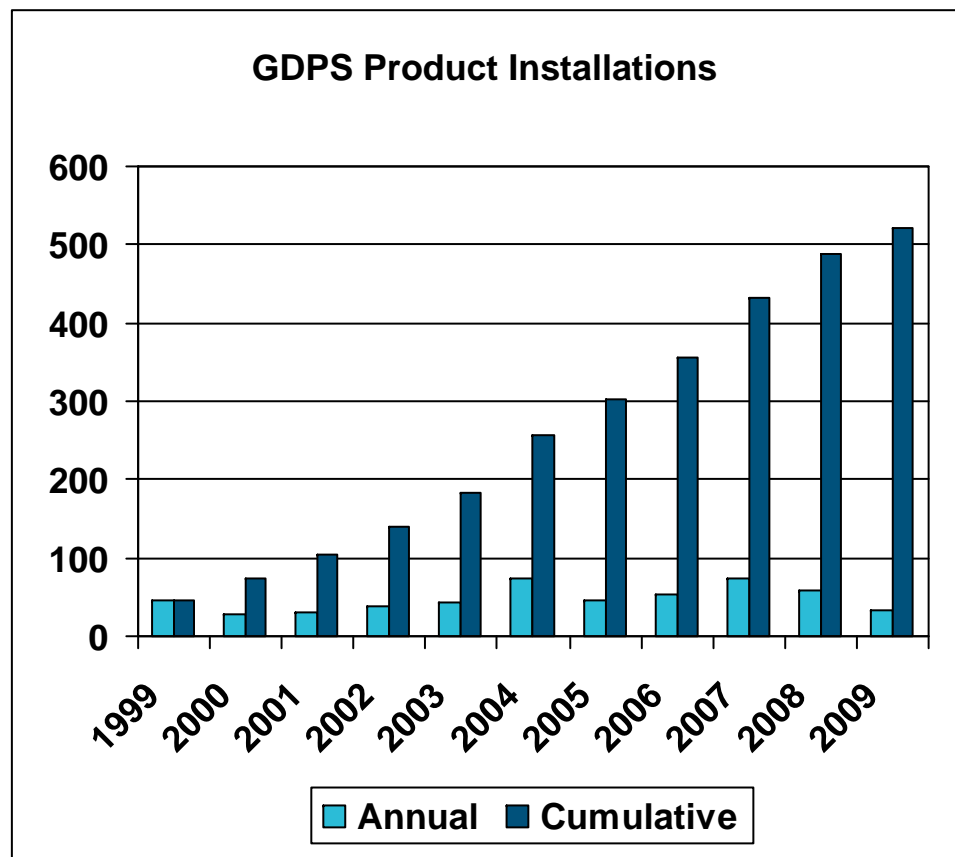
## GDPS : Is it a project for me ?

- Is Continuous Availability (CA) / and Disaster Recovery (DR) a current **business** focus ?
- Do you need to improve **Reputation and brand loyalty? Productivity?**
- Are **Regulation/Litigation** asking for stringent CA/DR plans and processes ?
  
- What do you do for **CA / DR** today?
  - What are your RPO and RTO objectives ?
  - Do you currently subscribe to a DR off-site solution?
  - Do you currently have multiple data centers today? How far apart ?

# GDPS Demographics (thru YE09)

## One or two site GDPS installations by product type

product	installs	percentage
RCMF/PPRC	52	9.8%
RCMF/XRC	16	3.0%
GDPS/PPRC HM	75	14.2%
GDPS/PPRC	270	51.1%
GDPS/XRC	87	16.5%
GDPS/GM	28	5.3%
Totals	528	100.0%



## Three site GDPS installations by product

product	installs
GDPS/MzGM *	32
GDPS/MGM **	19

## GDPS solution by Industry sector

sector	installs	percentage
Communications	35	6.6%
Distribution	25	4.7%
Finance	386	73.1%
Industrial	28	5.3%
Public	44	8.3%
Internal IBM	6	1.1%
SMB	4	0.8%
Total	528	100.0%

## GDPS solution by geography
























major geo	installs	percentage
AG	127	24.1%
AP	54	10.2%
EMEA	347	65.7%
Totals	528	100.0%

\* - GDPS/MzGM consists of GDPS/PPRC HM or GDPS/PPRC and GDPS/XRC. the GDPS licenses are counted in the prior table

\*\* - GDPS/MGM consists of GDPS/PPRC HM or GDPS/PPRC and GDPS/GM. the GDPS licenses are counted in the prior table

# Over 50 Customer References

## GDPS/PPRC

-  AMB Generali Informatik
-  ARZ
-  Bancaja
-  Banca Popolare di Milano
-  Banco Nossa Caixa
-  Bank of China
-  Bank of Montreal
-  Bankernes EDB Central
-  BRZ
-  La Caixa
-  Central Bank of Turkey
-  Credit Suisse
-  Danske Bank
-  John Deere Company
-  GAD
-  Halifax Bank of Scotland
-  Hua Nan Commercial Bank
-  Monte Paschi di Siena
-  National Bank of Greece
-  iT-Austria
-  Postbank
-  Royal Bank of Scotland
-  Signal Iduna
-  Svenska Handelsbanken
-  Toronto Dominion Bank
-  UBS
-  Volvo
-  VPC





## GDPS/XRC

-  American Express
-  Barclays Bank
-  Hannaford
-  Key Bank
-  Novant Health
-  Principal Financial Group
-  Regions Financial Corporation
-  Sun Trust Bank

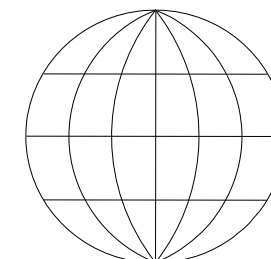
## GDPS/MzGM

-  Cedacri S.p.A.
-  Commerzbank
-  Garanti Bank
-  HMLR
-  Industrial Commercial Bank of China
-  IS Bank
-  Royal Bank of Canada
-  Seceti
-  UBS
-  Wells Fargo

## GDPS/MGM

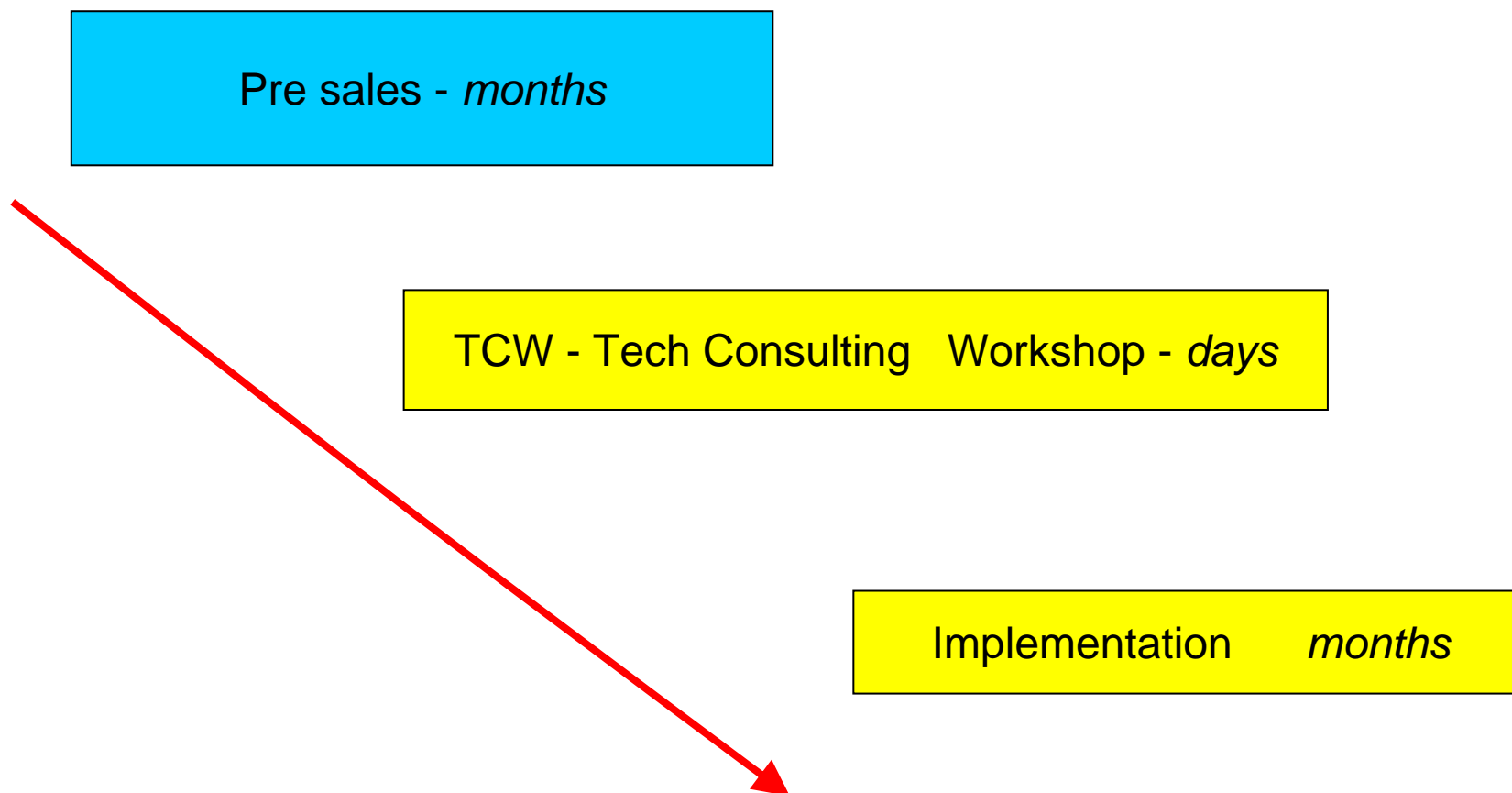
-  BPVN
-  Credit Agricole
-  Intesa Sanpaolo
-  St Paul Travelers

**... nearly 550 GDPS licenses installed in 38 countries worldwide as of today**

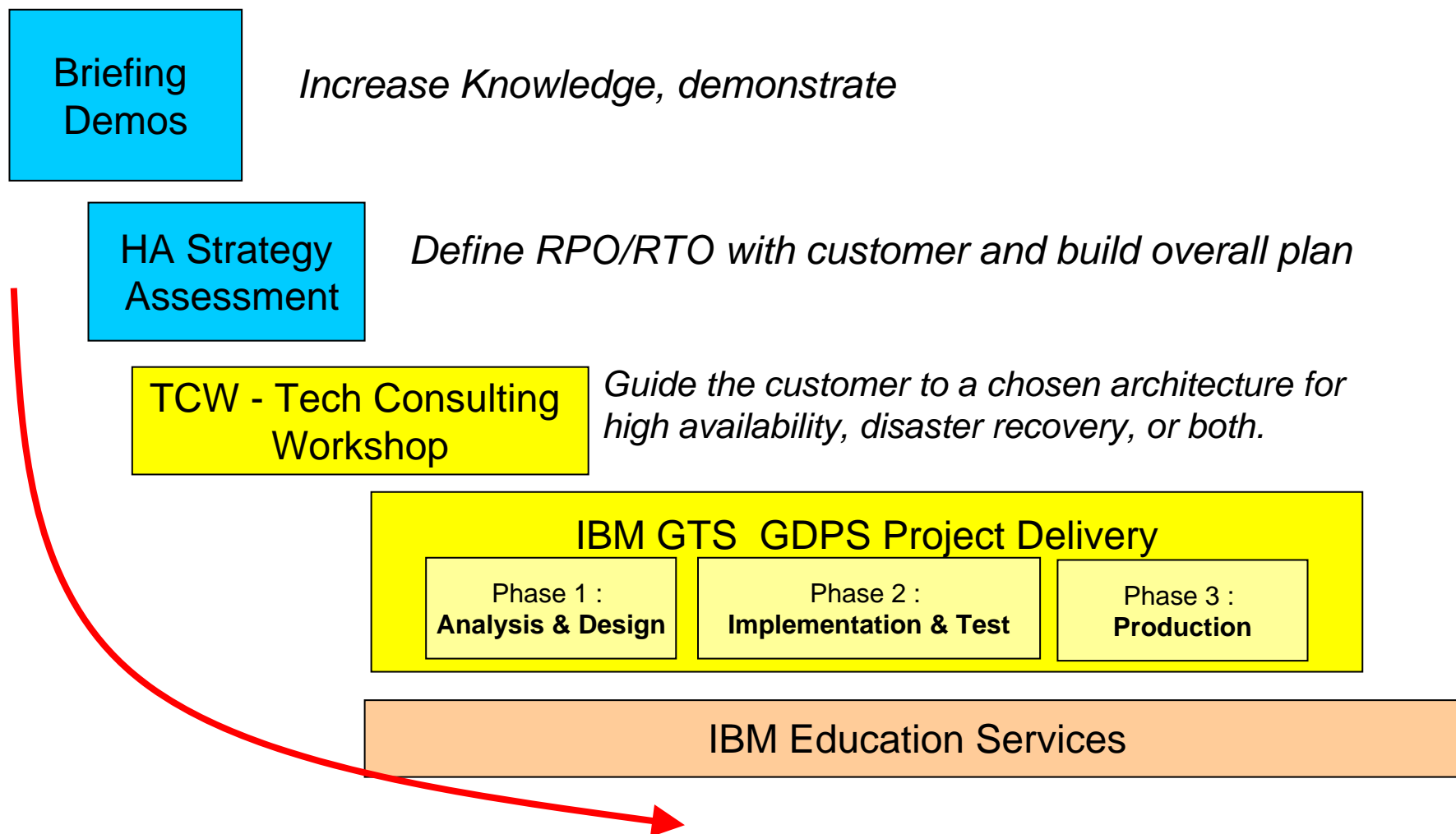


## What does a GDPS Project look like ?

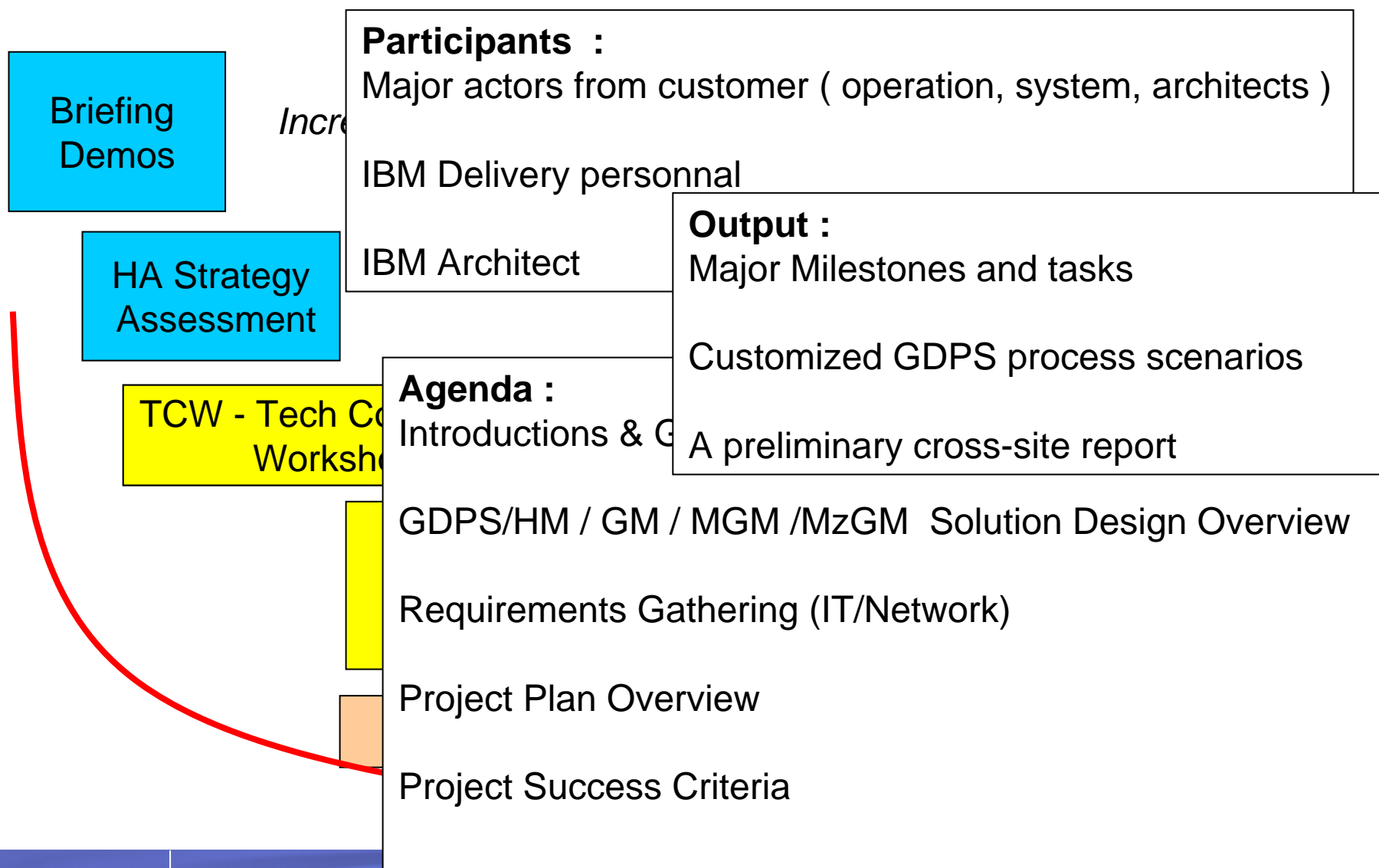
## GDPS standard project time line : major phases



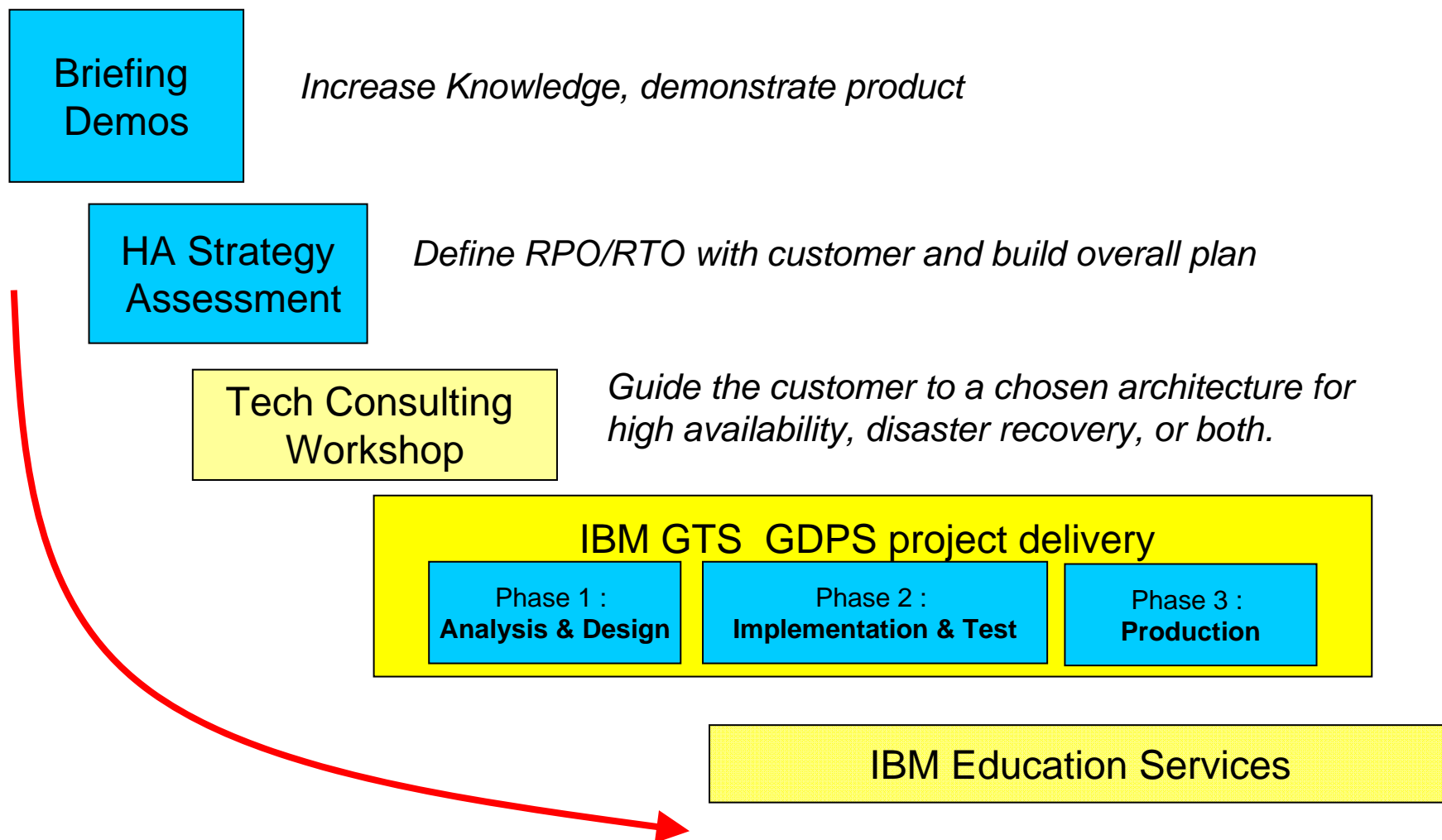
## GDPS project time line and available IBM resources



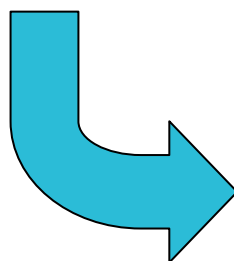
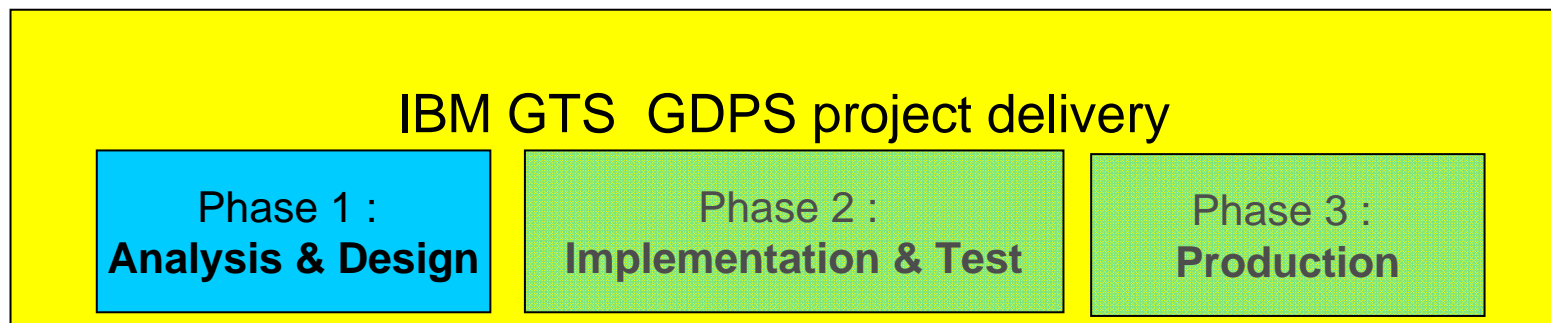
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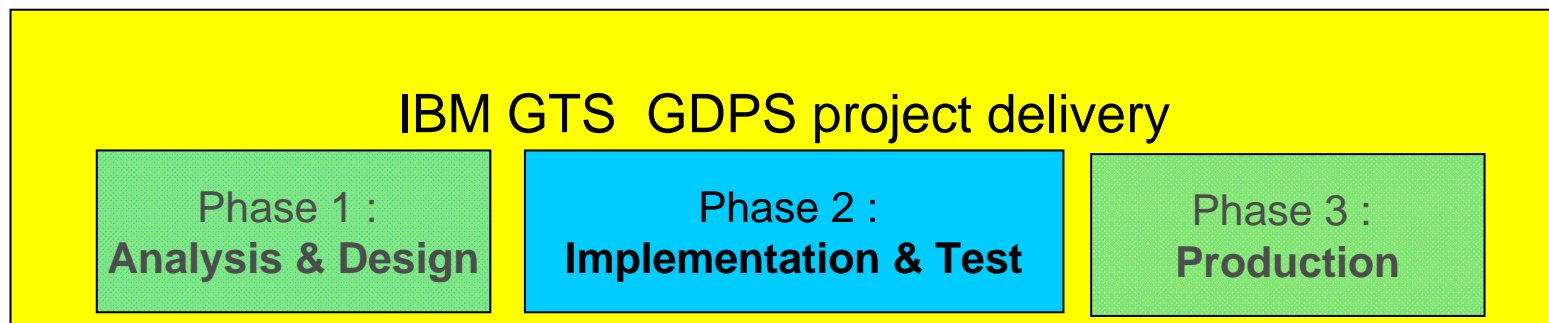


## IBM GDPS Offering : sample project plan



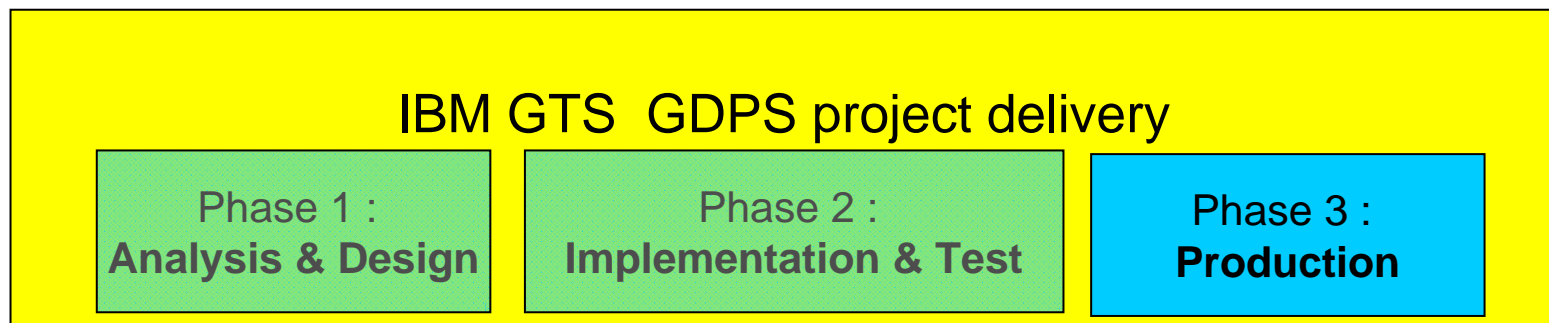
- Document objectives
- Assign tasks
- Build the detailed project plan

## IBM GDPS Offering : sample project plan

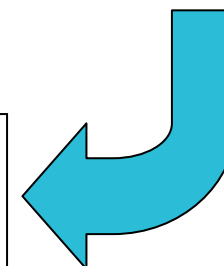


- Test Disk mirroring and GDPS Build
- Implementation/Customization
- Training
- Technology Functional Testing
- Integration and Disaster Recovery Testing
- Procedural Testing
- Operational Testing
- Documentation Development

## IBM GDPS Offering : sample project plan



- Production Disk Mirroring Ramp-up
- Disaster Recovery Testing
- User Acceptance Testing



## French implementation project profile

- Planning started May2007
- Implementation started June2007
- In Full Production in Jan 2008
  
- 2 Sites
- HDS 20TB - more than 2000 volumes
  
- Improve RTO from 8 to 2 hours
- Improve RPO from 15 min to 0s
- Hyperswap within 30sec

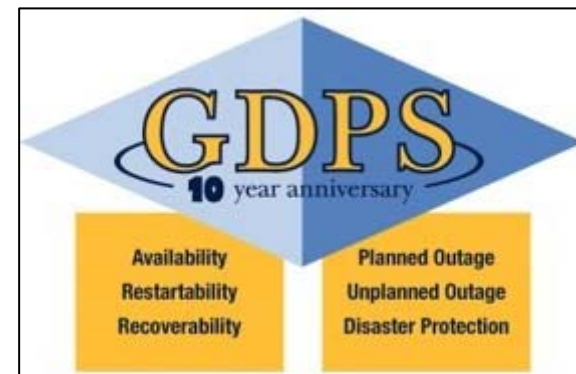
## French customer implementation timeline example

Tasks	Responsabilités		Charges		Mois 1				Mois 2				Mois 3			
	Customer	IBM	PM	IT Spec	1	2	3	4	5	6	7	8	9	10	11	12
<b>Netview / SA for GDPS installation</b>																
Product Installation	C	R		1.0	■											
GDPS tuning	C	R		0.5	■											
Préparation for production migration AF operator	C	R		1.0		■										
Admin team education	A	R	0.5	5.0			■	■	■							
Production migration	R	C	0.5	2.0					■	■						
<b>GDPS PPRC task</b>																
2 x z/OS partitions creation without PPRC	R	C	0.5	5.0	■	■										
GDPS build up in these partitions	C	R		0.5			■									
PPRC configuration	C	R		0.5				■								
Creation of Test environnement for disks (2x LCU)	R	C	0.5	1.0		■	■									
Tests of GDPS function on isolated disks	A	R		0.0					■	■	■					
"Hyperswap" bring up											■					
Scenarii definition and Education workshop preparation	C	R	1.0	3.0								■				
Operator education	A	R	1.0	5.0							■	■	■			
Migration preparation	C	R		1.0									■	■		
Production migration	R	C		1.0											■	
<b>Online backup processes</b>																
analysis of existing policies	R	A		1.0												
Interfaces defitinon	C	R		0.0						■	■	■				
Unit test	A	R		2.0							■	■	■			
Migration preparation	C	R		1.0										■	■	
Production migration	R	C	0.5	2.0											■	
<b>Project Management</b>																
1 meeting every 2 weeks	C/A	R	6.0	6.0	■		■		■		■		■		■	
			10,5	38,5												
	R	Run		C Consult					A	Approve						

## For more information

### Resources

- GDPS External pages
  - <http://www.ibm.com/systems/z/advantages/gdps/>
- GDPS Brochure (DataSheet)
  - <http://www-935.ibm.com/services/us/its/pdf/gdps-ds-gtd01259-usen-01-082407.pdf>
- GDPS White Paper
  - <ftp://ftp.software.ibm.com/common/ssi/sa/wh/n/zsw01920usen/ZSW01920USEN.PDF>
- GDPS Redbook®
  - <http://www.redbooks.ibm.com/abstracts/sg246374.html>
- GDPS Implementation Services
  - <http://www-935.ibm.com/services/us/index.wss/offering/its/a1000189>
- IBM System z Solution Edition for GDPS
  - [www.ibm.com/systems/z/solutions/](http://www.ibm.com/systems/z/solutions/)



Class 2009	Status	Location	Start Date
GDPS/PPRC	full	Montpellier, France	June 28, 2010
GDPS/PPRC	Open For Enrollment	Montpellier, France	September 13, 2010
GDPS/XRC	Open For Enrollment	USA	October 25, 2010
GDPS/Global Mirror	Open For Enrollment	Montpellier, France	November 15, 2010

(1) Prices and configurations will vary, see you IBM representative for details

**Thank you....**

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## Acceptance Criteria Planning

- Demonstrate ability to bring up all production systems in Recovery site
- Meet or exceed the RPO (5 Minutes) and RTO (2 hours) objectives
- Demonstrate high availability and isolation from DASD failures
- Demonstrate network connectivity to recovered systems
- Demonstrate the switch is a highly automated solution
- Determine levels of data validation to demonstrate data consistency
- Demonstrate no impact to performance of primary I/O
- Demonstrate minimal prep time required for D/R tests
- Provide a permanent testing environment
- *Other*

## Test Plan Introduction

- Disk Mirroring Technology Functional Tests
- GDPS Technology Functional Tests
- Integration and Procedural Tests
- Operational and Disaster Recovery Tests
- Processes/Procedures
- User Acceptance
  - Performance/Documentation/Validation

## compliance

- [http://www.gartner.com/DisplayDocument?doc\\_cd=128123](http://www.gartner.com/DisplayDocument?doc_cd=128123)

F i n a n c e	Federal Financial Institutions Examination Council (FFIEC) Handbook, 2003-2004 (Chapter 10)	Specifies that directors and managers are accountable for organizationwide contingency planning and for "timely resumption of operations in the event of a disaster."	This chapter — on an operational level — supplants many other BCP guidelines. It covers examination requirements for all companies regulated by the Federal Deposit Insurance Corp. (FDIC), Federal Reserve Bank (FRB), Treasury Department, U.S. Office of the Comptroller of the Currency (OCC), Office of Thrift Supervision (OTS) and National Credit Union Administration (NCUA).
	Basel II, Basel Committee on Banking Supervision, Sound Practices for Management and Supervision, 2003	Requires that banks put in place BC and DR plans to ensure continuous operation and to limit losses.	After 2007, influence of Basel II will be limited to about 30 U.S. banks but will spread as a best practice via "audit creep."
	Interagency Paper on Sound Practices to Strengthen the Resilience of the U.S. Financial System, 2003	More focused on systemic risk than individual enterprise recovery. Requires BCPs to be upgraded and tested to incorporate risks discovered as a result of the World Trade Center disaster.	Influences companies that are regulated by Securities and Exchange Commission (SEC), OCC and Board of Governors of the Federal Reserve System (FRS). Authorizes the OCC to take action against banks that fail to comply with requirements for DR by the U.S. financial system.

# The IBM System z Solution Edition for GDPS

## *Details on GDPS/PPRC HyperSwap Manager solution*

- **A GDPS/PPRC HyperSwap Manager solution**

- Automatic and transparent switching from primary disk to secondary disk
- Single site, or two site (up to 200 km distance) CA solution
- GDPS automation the foundation for DR

- **Solution components include<sup>1</sup>:**

Software:

- IBM Tivoli NetView® for z/OS and IBM Tivoli System Automation for z/OS
- Or - Tivoli System Automation for z/OS for GDPS
- Or - Tivoli System Automation for z/OS with NetView for GDPS

Hardware

- 2 Control System (K-sys) LPARs, each w/ two shared CPs and 1GB memory
- IBM System Storage DS8000(s) with Metro Mirror feature

Services

- GDPS control code
- Installation, customization, skill transfer, testing, project management

- **Implement entry-level GDPS CA and DR with 1400 MIPS and 10TB of disk for as little as \$2.5M<sup>1</sup>**

(1) Prices and configurations will vary, see you IBM representative for details

