Business Intelligence
For a
ZERO LATENCY organization

(Event Driven Architecture)

Enterprise Event Cloud
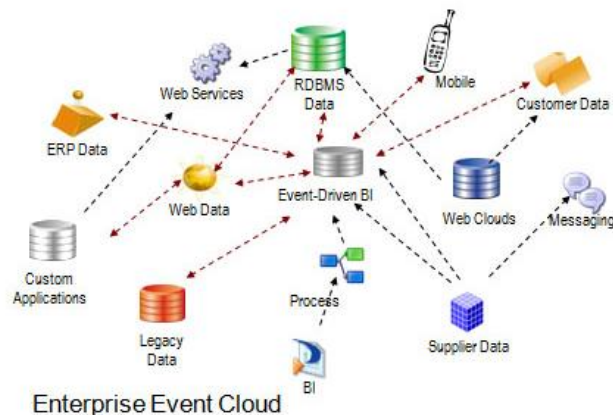
Fernando IAFRATE : Sr Manager of the BI domain
Fernando.iafrate@disney.com
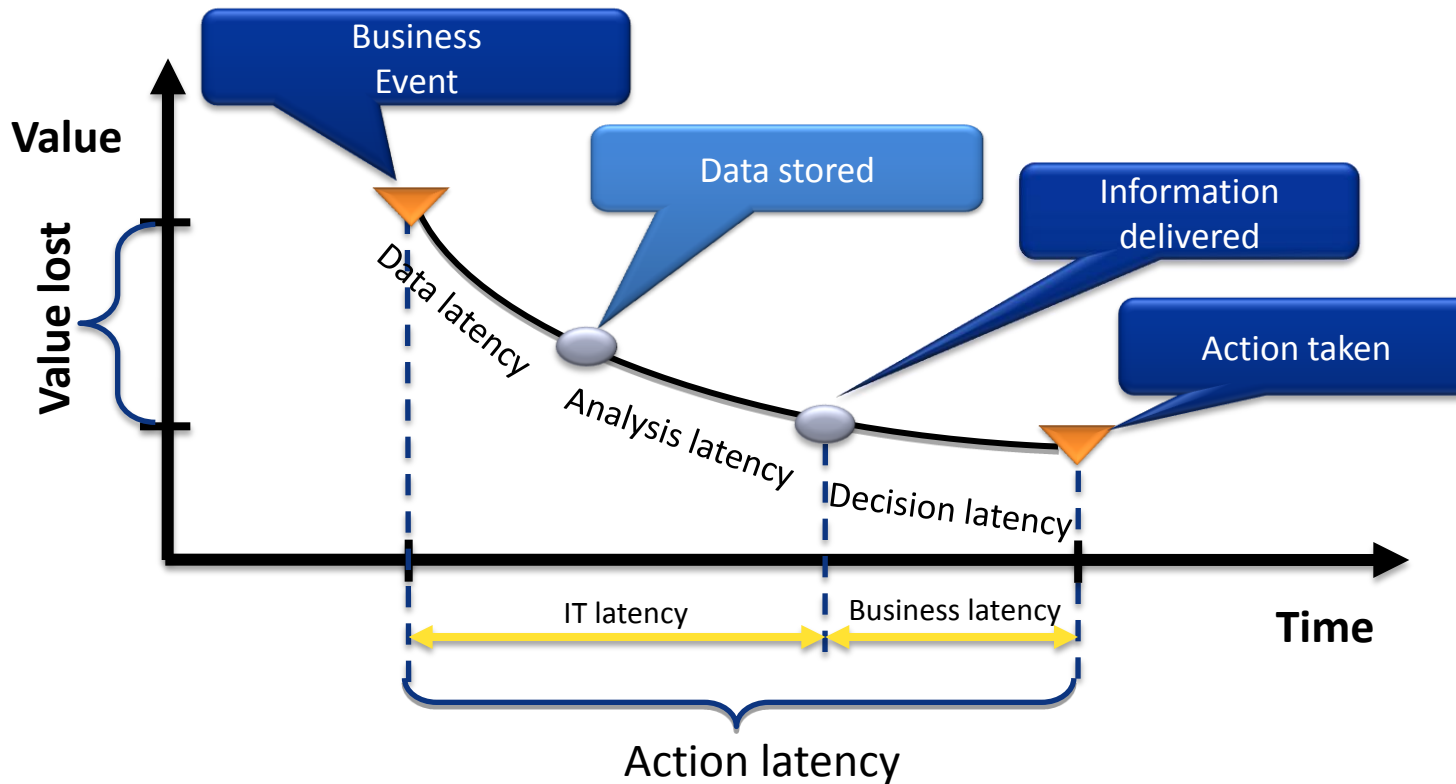*Tel : 33 (0)1 64 74 59 81*
Mobile : 33 (0)6 81 97 14 26
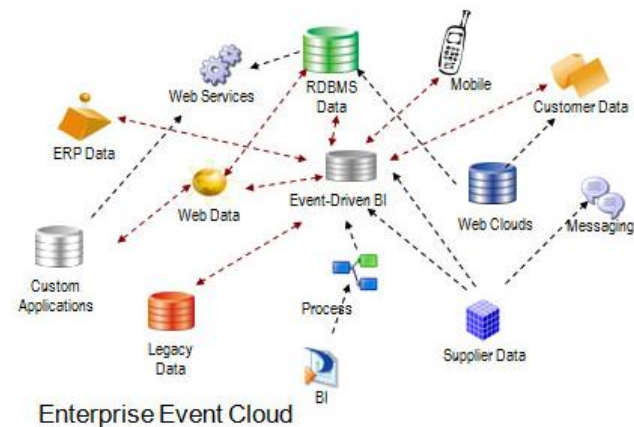
The concept:
Zero latency Organization

What is a ZERO LATENCY organization ?

Is an organization where the Action Latency is align on business process timing

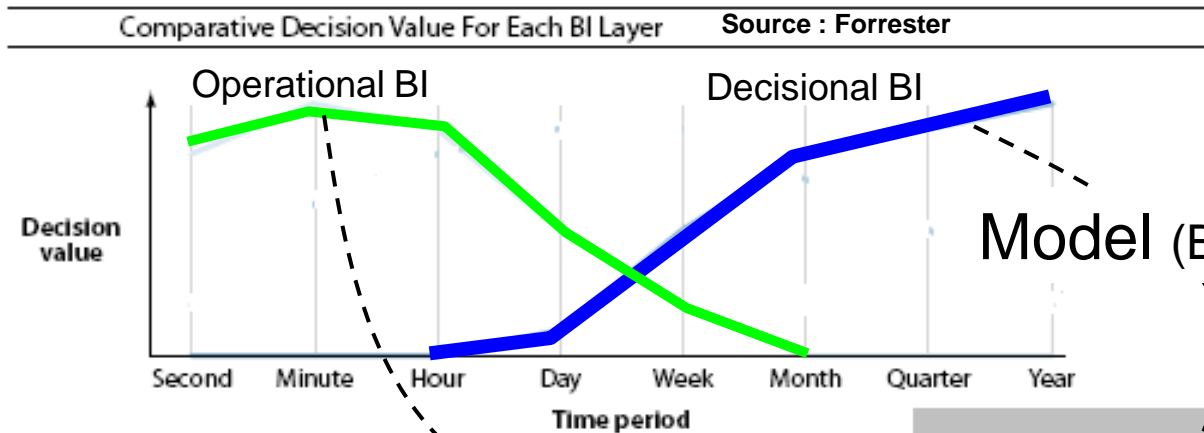Three types of latency (Based on HACKATHORN, 2004)

The "corner stone":
BI New Gen based on an EDA (Event Driven Architecture)

BI New Generation

- Is a set of new concepts about the use and exploit information for the enterprise (more analytics, collaborative, closed loop between decisional & operational…)

- The heart of it, "temporality"

- Based on an event driven architecture to consume data in "real/right time" (streaming mode)

- For a "zero latency organization", where, information, decision and action are link in the same process & timing

BI Matter of Timing & data Granularity

Comparative Decision Value For Each BI Layer — **Source : Forrester**

Operational BI   Decisional BI

Model (BigData)

Decision value

Second   Minute   Hour   Day   Week   Month   Quarter   Year

Time period

Current (EDA)

Toll Plaza

800 Tkt
600 Tkt
400 Tkt
200 Tkt
0 Tkt

Difference between these 2 modes is timing, data granularity.
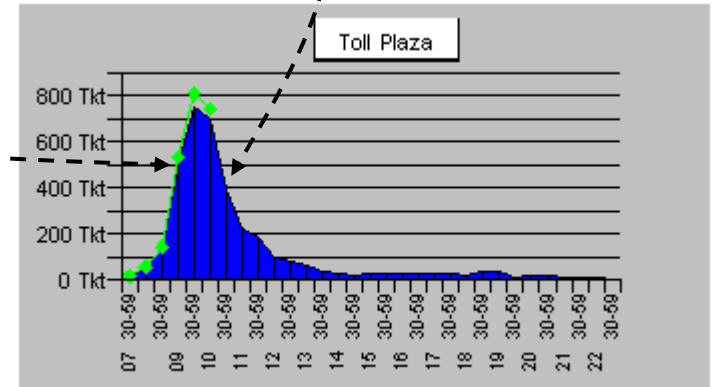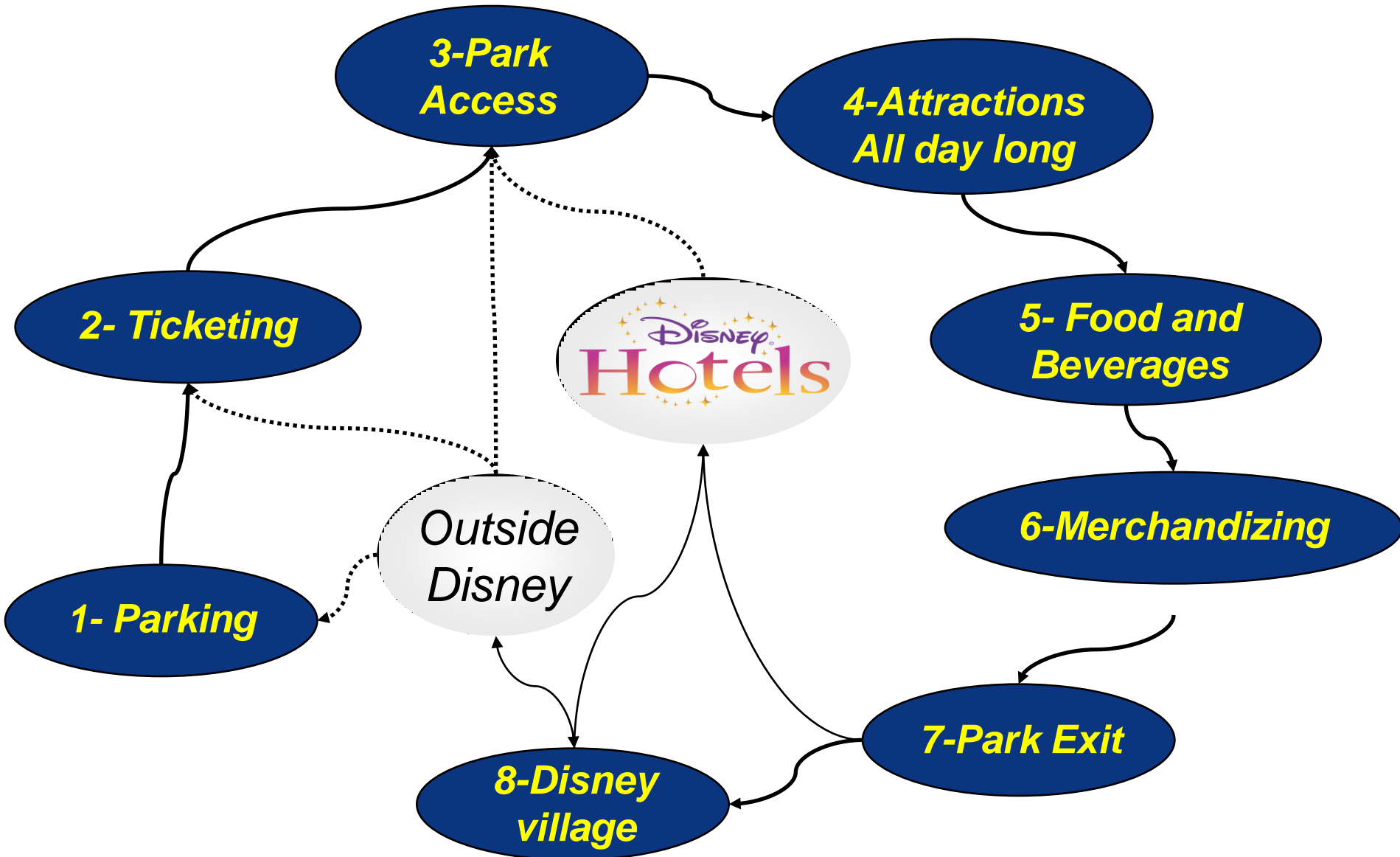
Closed loop between Decisional & Operational BI

The Scope & Solution:
"To Serve Every Day Thousand of Dreams"

The Service Day : About 20+ customer iterations on the Resort

A Zero Latency Organization

- **"Real-time" traffic visibility from 900 Point of Sales (POS), compared with an objective of productivity by:**
    - Date & Time
    - Location (attractions, shops, restaurants …)
    - By cash register / Attraction …

- **Frequent refreshment of the information: < in 10 '**

- **Elaboration of a forecast model allowing to anticipate the actions).**
    - objectives (budget)
    - contextual model (history, season, day, level of frequency

- **Activities are continually measured:**
- **Continuous Optimization** means **Continuous Monitoring**

- **Information is available at all organization levels, in real time to all actors, either through a BI portal or BI mobile solutions:**

  ▶

    - Workers have a real time visibility on their productivity
    - Key managers follow trends, based on aggregated figures.

- **Information needs are different at each level**

Performance Management BI

Decisional BI

Operational BI

Executives

Managers
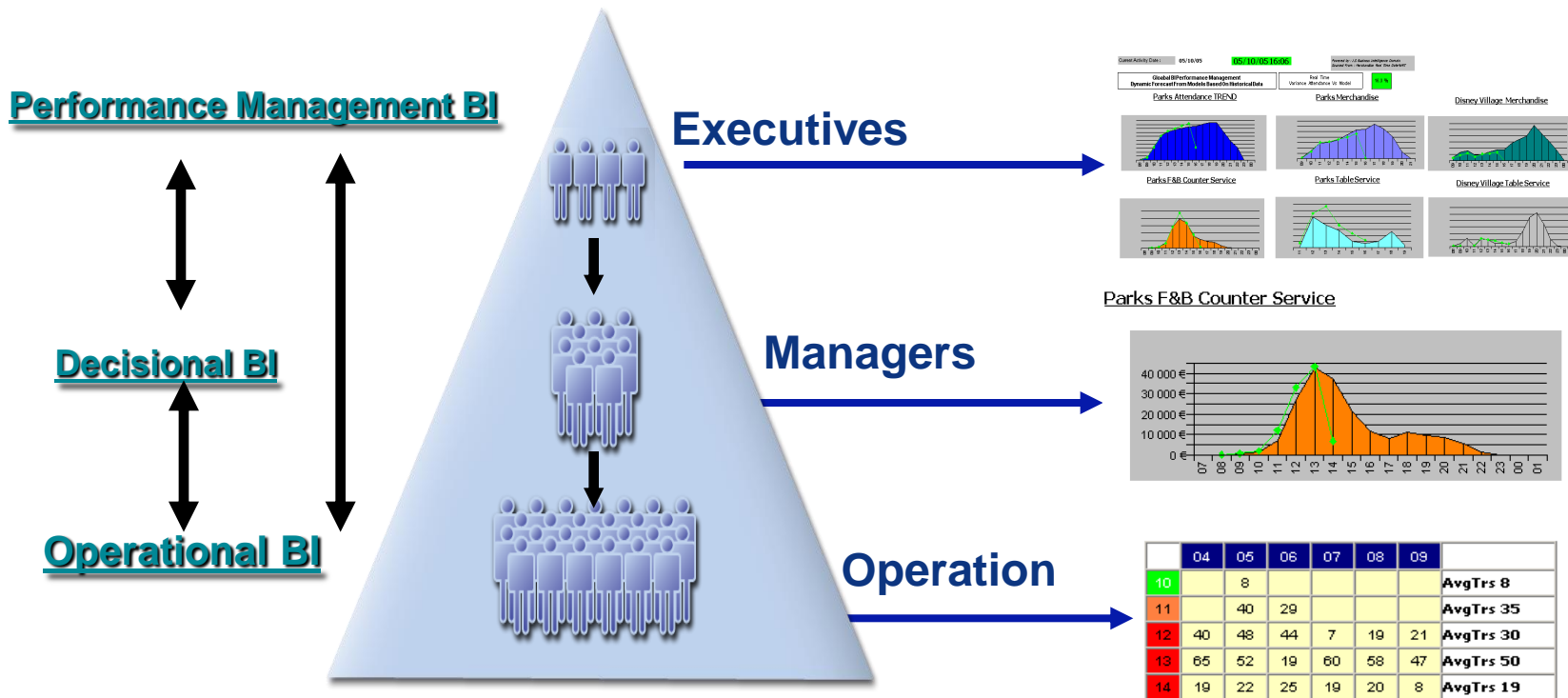
Operation

THE PERVASIVE Business Intelligence (on demand & on device)

BI In Motion

&

The Service Day : About 20+ customer iterations on the Resort

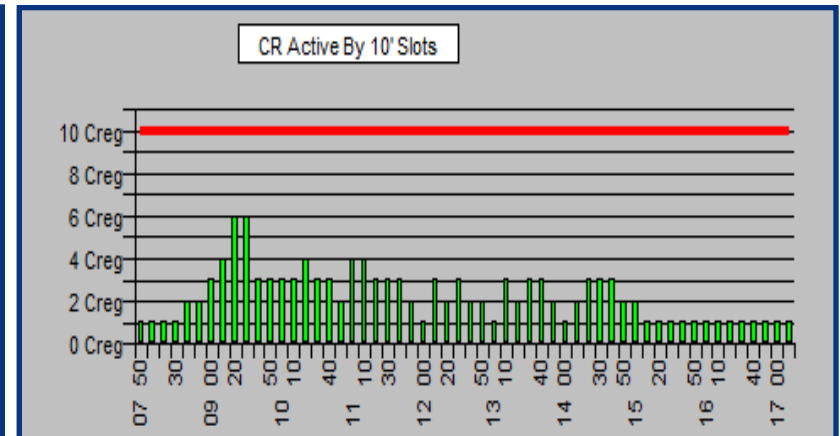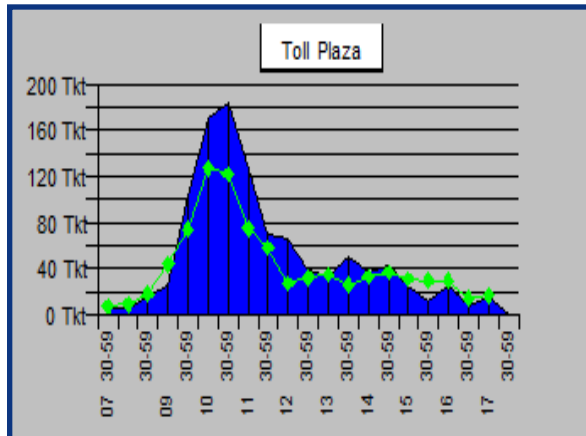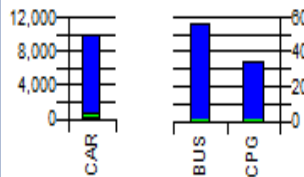**Toll Plaza**

wed 30 jan 2013 17:16

Real Time Guest Entry Complex (Toll Plaza / Main & Front Gate)

Powered by : I.S Business Intelligence Domain
Sourced From : Galaxy DB & DataMART's

Vehicle	BUS	CAR	CPG
Capacity	561	10,076	350
Used	12	833	1
Free	549	9,243	349
% Occ	2%	8%	0%

Toll Plaza

CR Active By 10' Slots

Park Access

Disneyland Park

		Turnstile	Avg	Gsts/Min	MKP Exit/Entrance 45	44	MKP Central Entrance 36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	17	MKP VIP Entrance 16	15
14	0-29	18	67	3,3	8,3	3,7					2,7	4,8	6,7	5,6	5,6	6,1	2,7	3,7	1,9	1,2						1,7	2,3
13	30-59	18	83	2,8	5,6	5,4					2,1	3,6	3,5	4,4	3,7	5,0	3,7	1,6	1,0	0,5						0,7	3,2
13	0-29	18	85	2,8	2,1	1,4					1,8	4,3	5,0	5,1	6,2	4,1	4,8	2,5	3,3	0,2						0,1	4,6
12	30-59	18	75	2,5	4,4	6,8					0,6	2,7	3,3	4,7	3,8	4,0	2,6	1,8	1,5	1,4						0,3	1,8
12	0-29	18	102	3,4	9,7	2,1					2,3	4,1	4,7	5,4	5,5	4,2	3,4	2,5	1,5	2,9						1,5	1,4
11	30-59	26	102	3,4	4,7	2,5	0,4	0,5	1,3	1,8	6,0	6,1	6,4	5,6	5,1	6,9	6,4	6,2	6,0	6,5	1,8	3,3	0,9	0,6		1,8	2,5
11	0-29	27	151	5,0	2,5	3,6	3,1	4,6	4,6	6,2	4,0	7,8	8,2	8,4	5,7	4,5	6,8	5,1	2,3	4,6	5,3	5,0	8,3	9,0	2,9	3,8	5,7
10	30-59	26	166	5,6	3,2	1,0	5,7	6,3	6,7	5,4	4,0	7,8	7,4	5,7	4,2	7,8	7,6	8,9	3,9	7,0	6,2	5,8	6,2	8,0		6,9	4,9
10	0-29	26	176	5,9	1,1	1,1	4,8	4,5	5,0	5,8	5,0	8,6	7,4	7,0	6,2	7,7	9,6	9,5	6,4	7,3	7,0	7,7	6,8	8,2		4,7	5,4
09	30-59	23	146	5,0	0,1				1,2	0,5	7,4	5,6	7,1	7,8	7,2	7,7	8,0	6,5	6,0	6,1	6,4	4,5	4,3	7,9		1,4	4,2
09	0-29	15	25	0,8							0,1	0,1	0,0				0,2		0,1	0,2	0,2		0,5	0,1		0,8	2,7
					1 145	748	391	466	548	570	1 039	1 589	1 711	1 709	1 505	1 654	1 629	1 377	888	1 093	769	674	785	998	85	642	1 082

Food & Beverage

REVENUE
Green = Actuals   Blue = Model   Orange = Budget

Actuals

Model (reference)

Model (revised every Hours based on dim-variances)
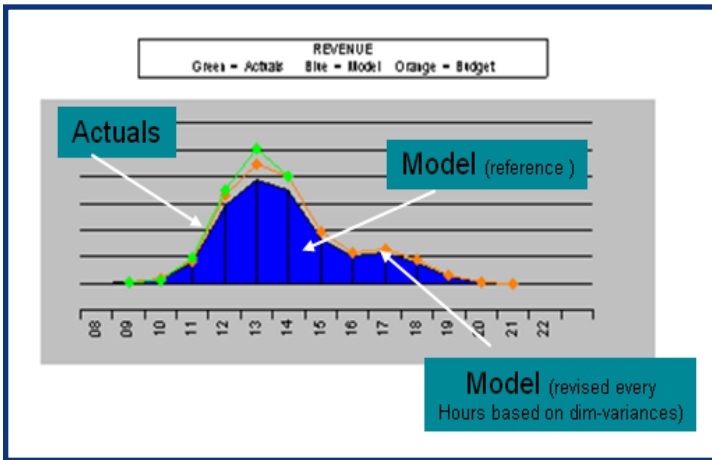
CReg	15 (30-44)	15-29	00-14	Sum	Rev	ChkAvg	14 (45-59)	30-44	15-29	00-14	Sum	Rev	ChkAvg
04							10	13	15	17	55	1709€	31€
05	20	14	18	52	1175€	23€	16	14	19	15	64	1807€	28€
06	5	6	13	24	468€	20€	8	7	15	14	44	1043€	24€
Sum	25	20	31	76	1643€		34	34	49	46	163	4559€	
#CregAct	2	2	2				3	3	3	3			

The process dimension:
The Operational Control Center

An Operational Control Center (OCC)

- **Park activities piloting from a Control Center**

- **Management of the entrances and performances of the different activities (parking, entry, shops, attractions, restaurants)**

- **Real/Right Time information are available to operational managers on the parks**

- **Decisions are fact-based**

- **Resources are dynamically adjusted according to the context**

An Operational Control Center (OCC)

Guest Entry | Attractions | Entertainement. | Food | Merchandise | Cameras

Real Time Information's

Duty Managers

Hôtels Forecast

Weather Forecast

Context

Labor Forecast

Parks Forecast

EDA Data Storage

OCC Business Experts

Call For Action

Guest Entry

Merchandise.

Attraction

Food

Entertainement

Operational process

Push of Guests Information's

Dynamic Tip Board

- Attraction waiting time
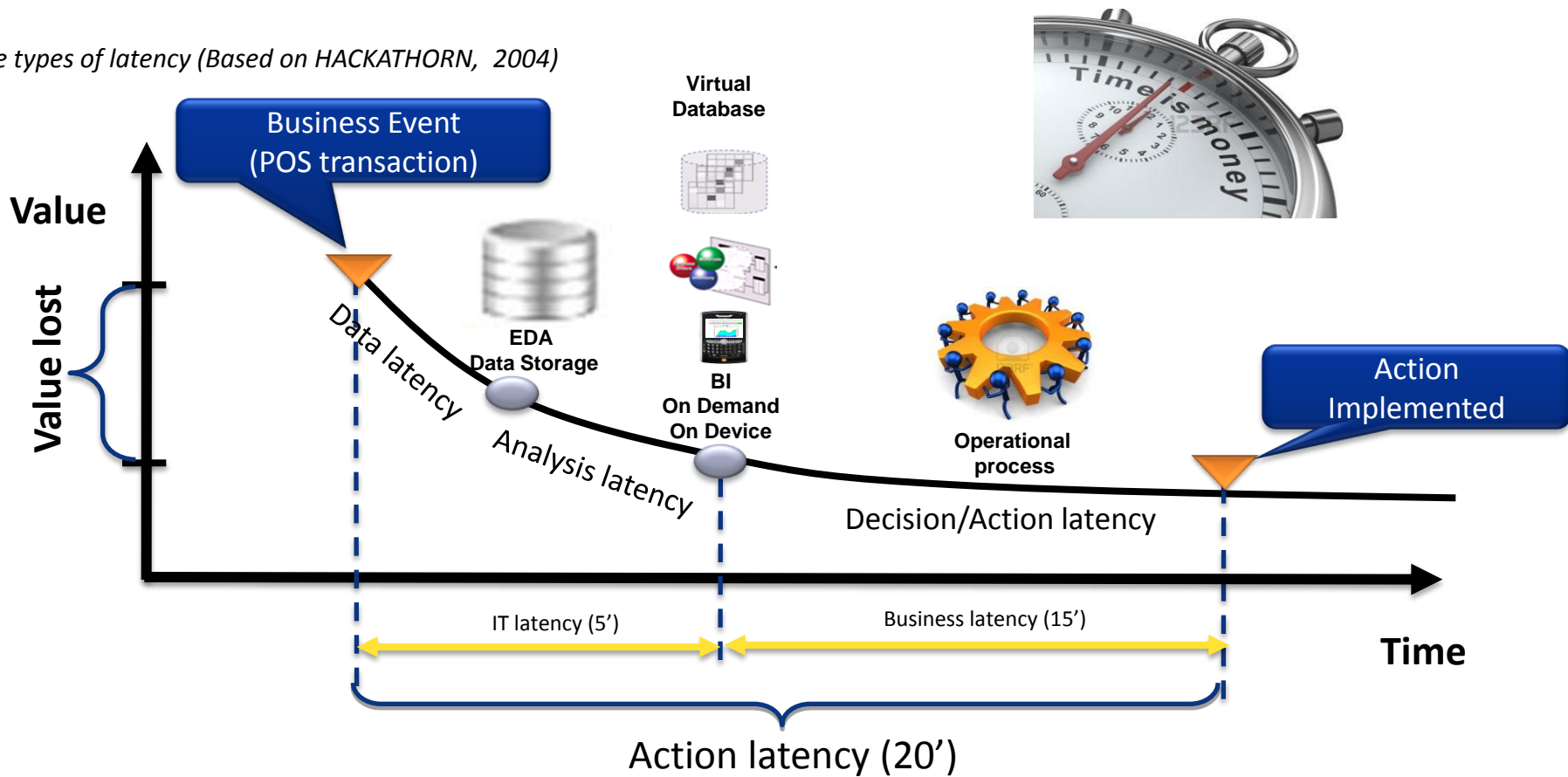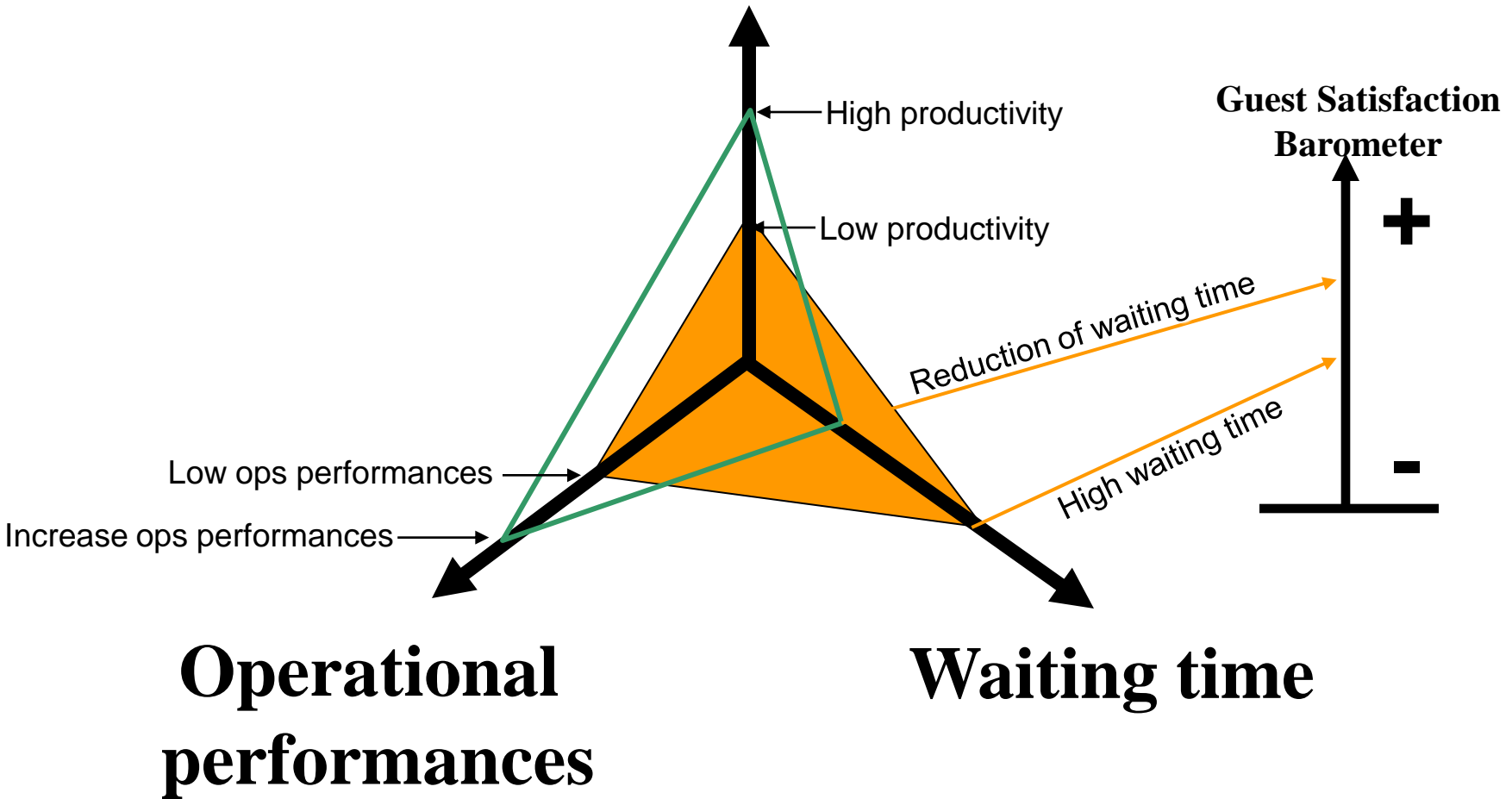- Attraction down
- …

What is behind the magic?

BI On Demand & On Device
link to very reactive operational processes & organization

Three types of latency (Based on HACKATHORN, 2004)

Virtual Database

Business Event (POS transaction)

Value

Value lost

Data latency

EDA Data Storage

Analysis latency

BI On Demand On Device

Operational process

Action Implemented

Decision/Action latency

IT latency (5')

Business latency (15')

Time

Action latency (20')

The Benefits

The Productivity

High productivity

Low productivity

Guest Satisfaction Barometer

+

-

Reduction of waiting time

High waiting time

Low ops performances

Increase ops performances

Operational performances

Waiting time

Thanks for listening

. Questions / Comments

. Next … ?