

PI System Implementation Experiences in Different Industries

Presented by **László Arany**
I.T.O ENGINEERING Ltd



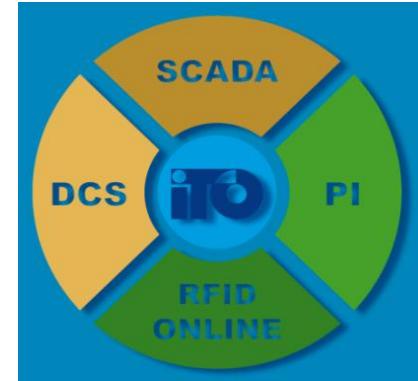
Agenda

- ITO's Introduction
- PI as a System Integrator Suggests
- ITO's PI References

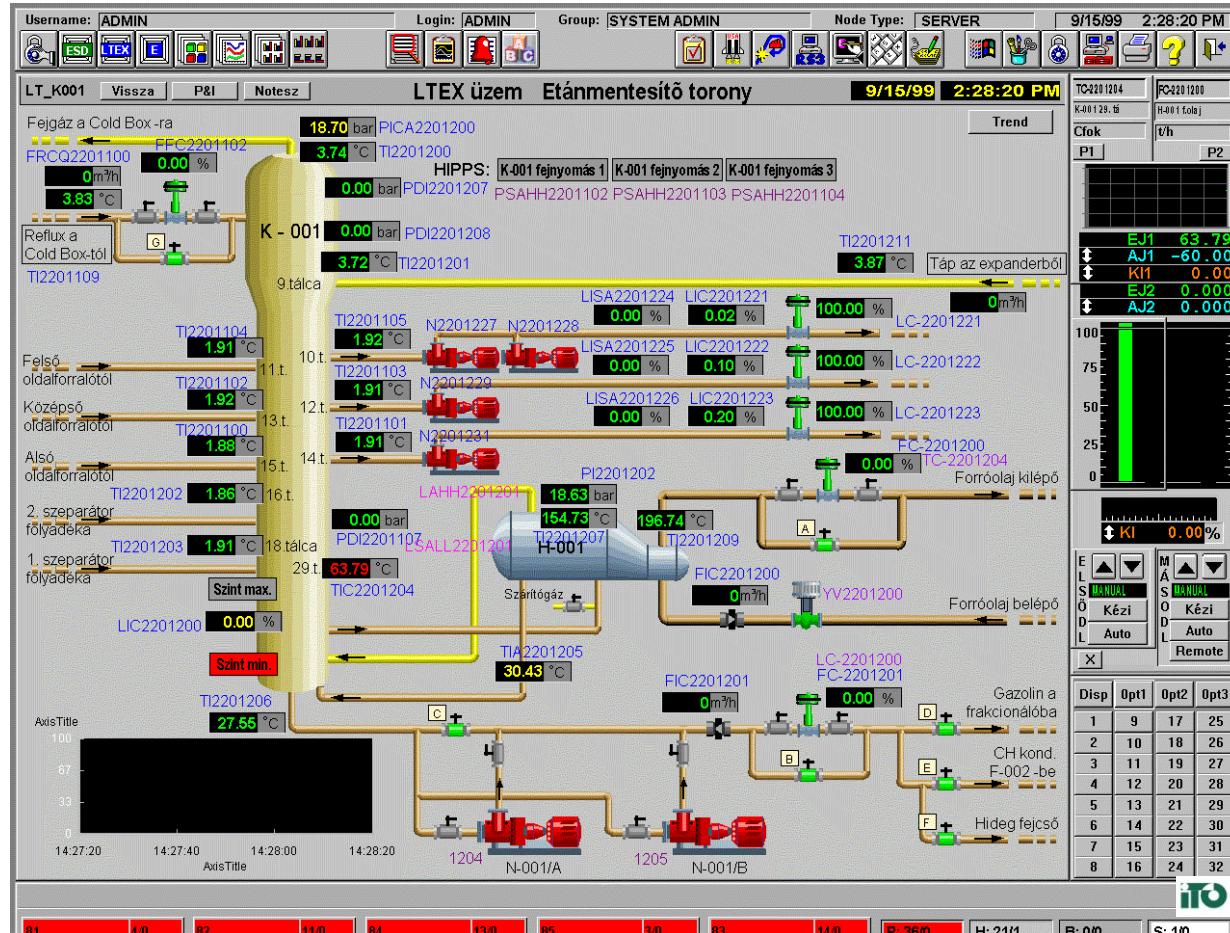
I.T.O ENGINEERING Ltd.

Engineering and System Integration (design, development, delivery, installation, maintenance, support and development):

- *DCS systems*
- *SCADA, PLC systems*
- *Asset management systems*
- ***PI – PLANT INFORMATION systems***

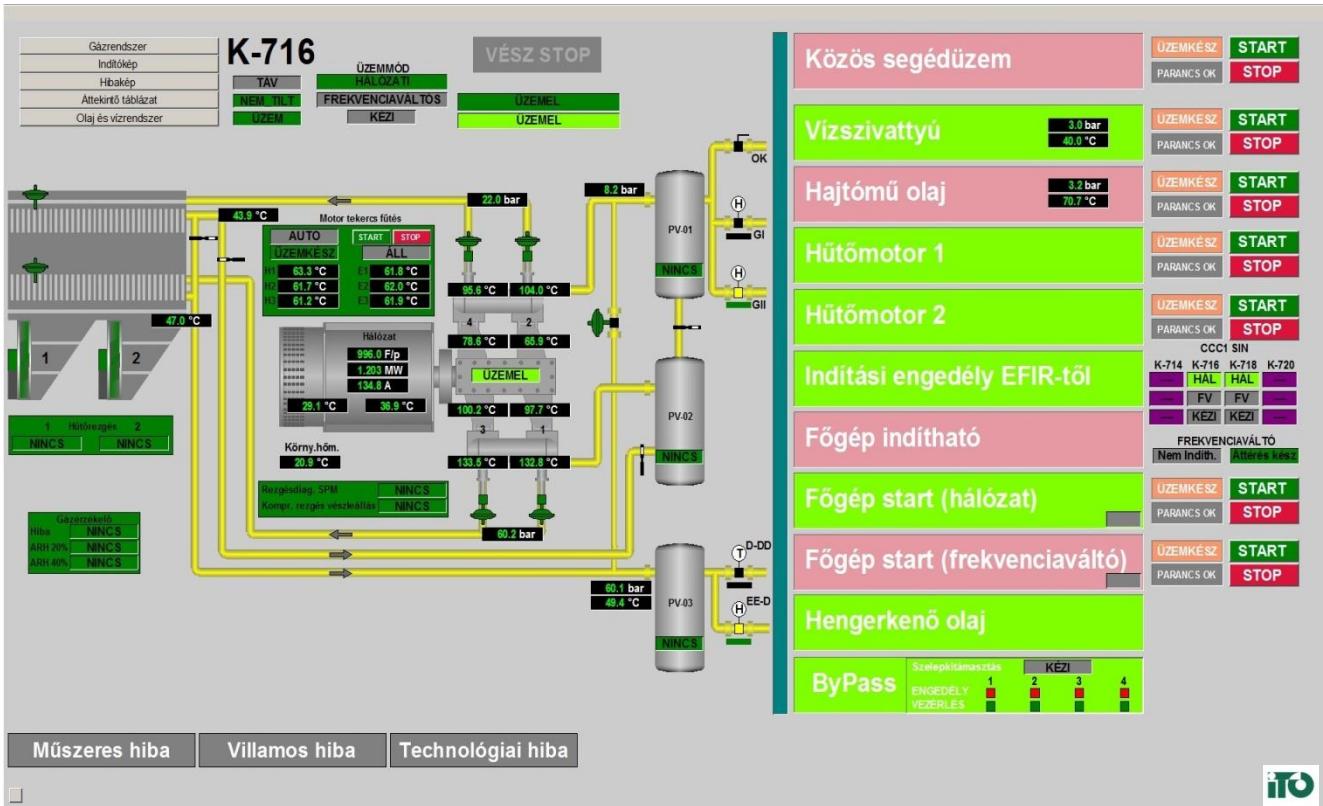


DCS System



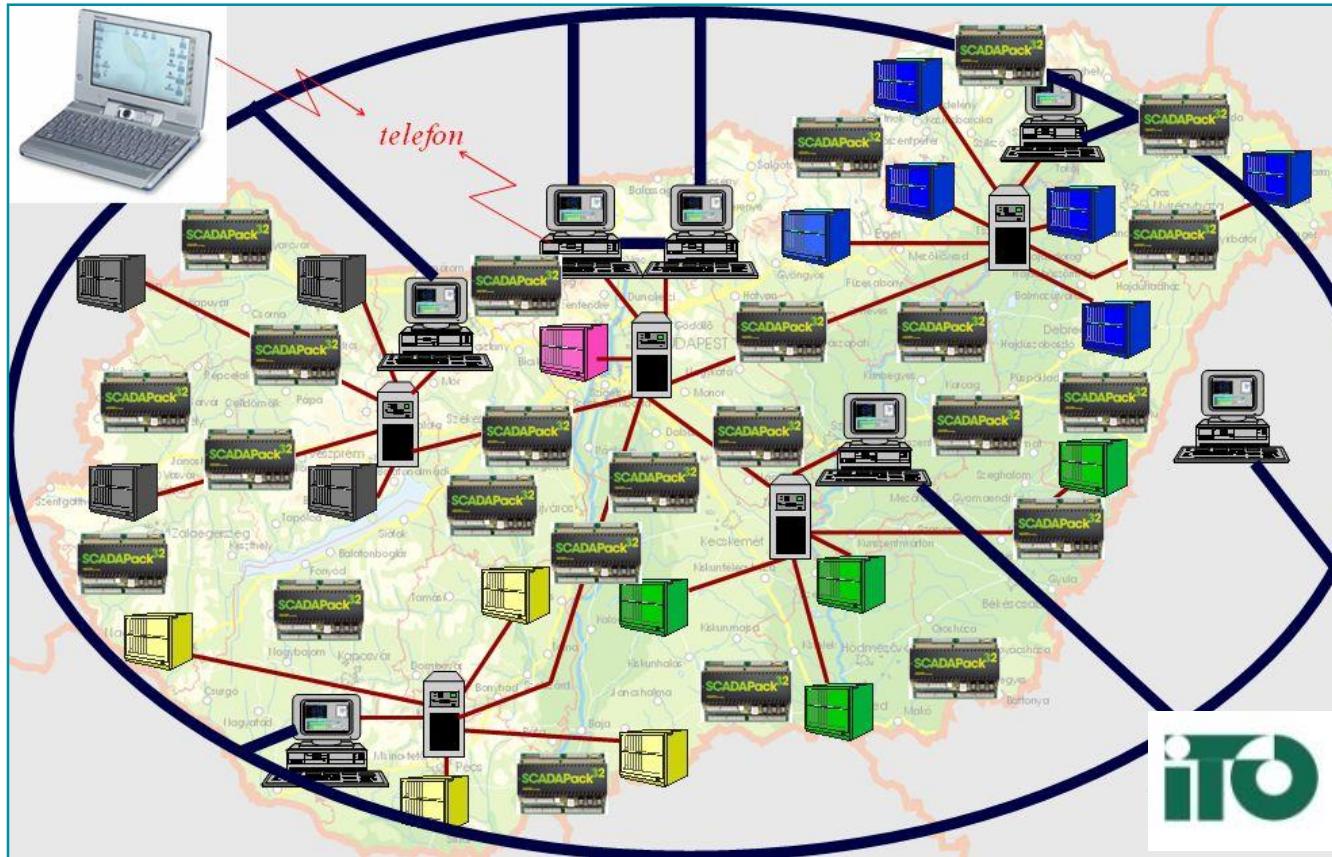
MOL US, Algyő:
Gas Production
Plant

DCS System



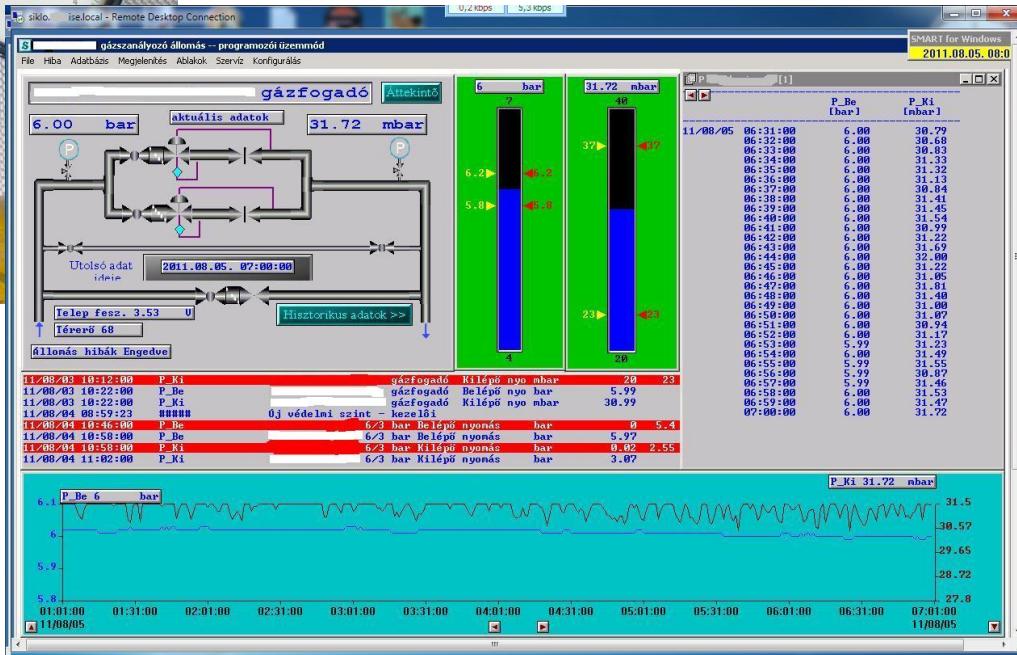
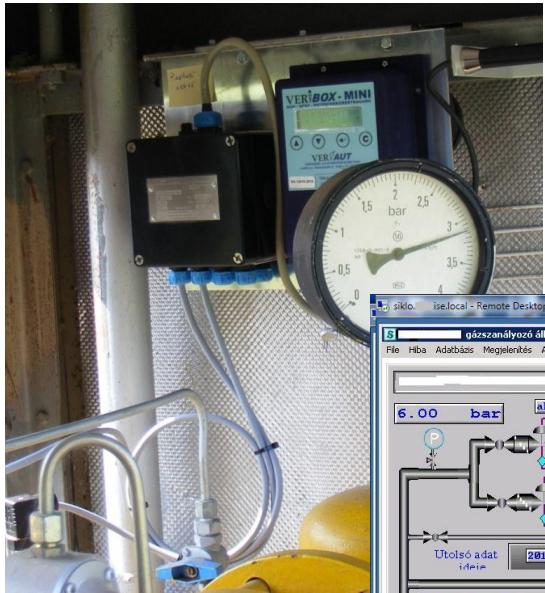
MOL US, Algyő:
Compressor Plants
(31 pcs)

SCADA System



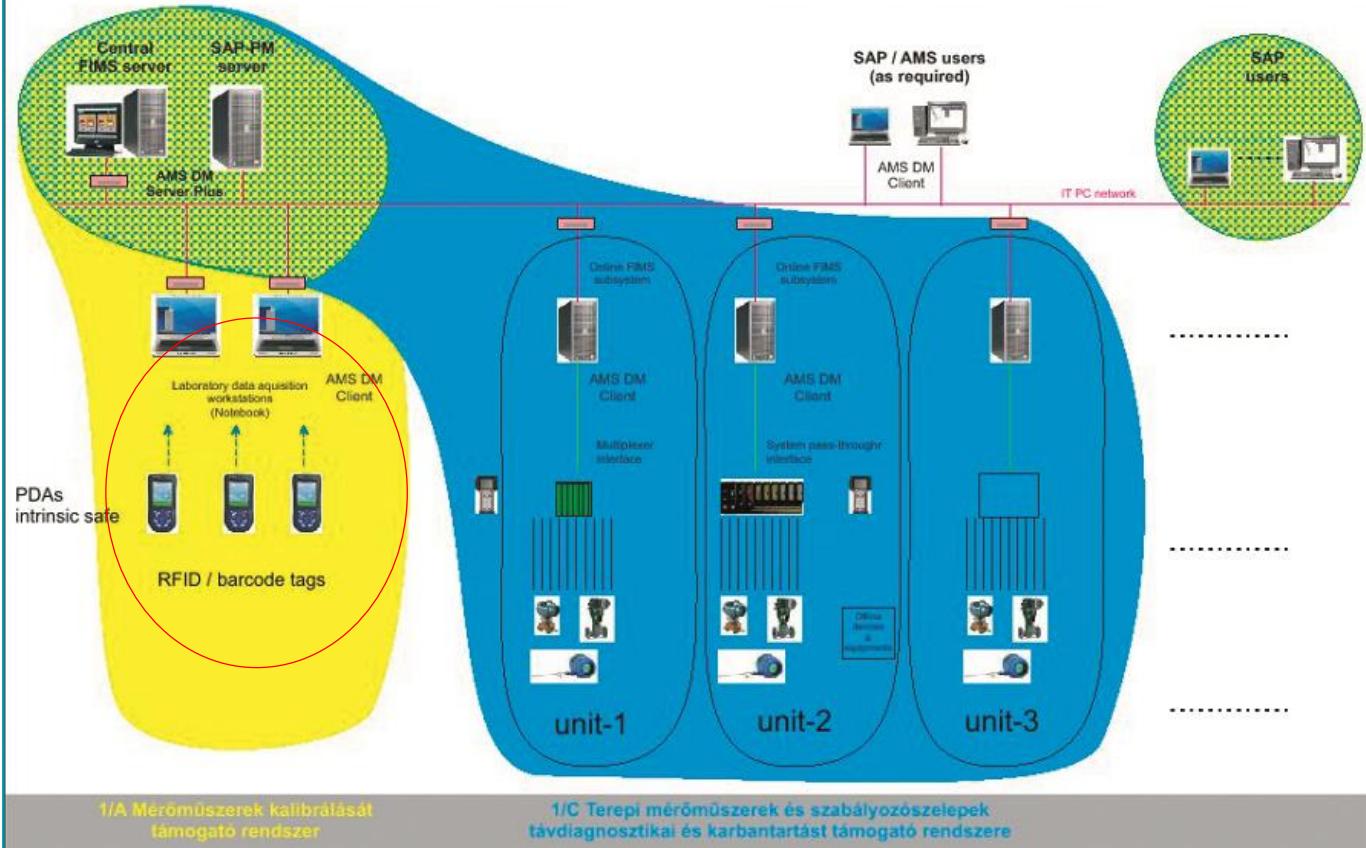
ANTENNA
HUNGÁRIA:
TV and Radio
Transmitter
Control System

SCADA System



E.ON KÖGÁZ:
Control System of
Pressure Reduction
Stations (30)

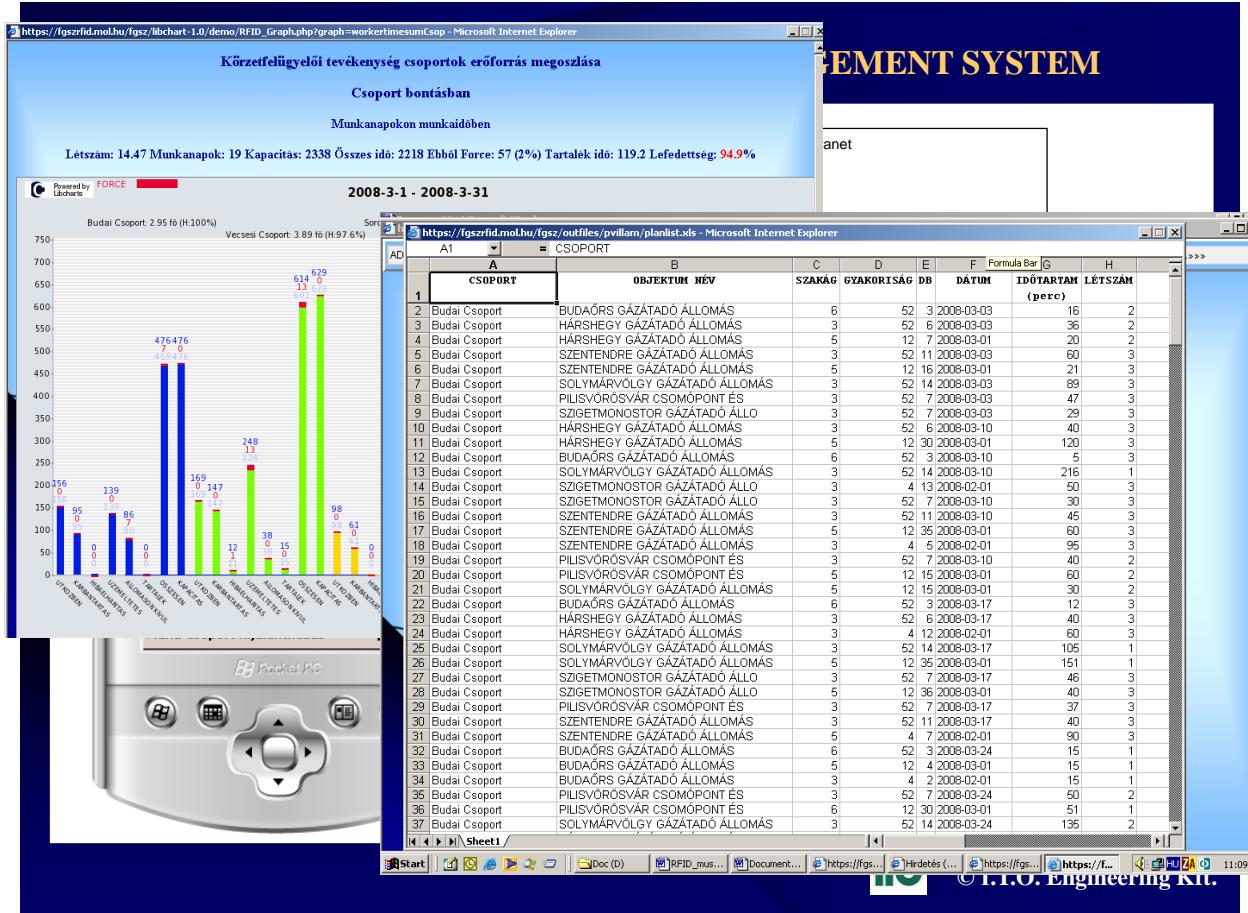
Asset Management System



**MOL DS,
ROMPETROL,
(SLOVNAFT):
Calibration and
Laboratory
Subsystem of
Special
Instruments**

Asset Management System

FGSZ
NATURAL GAS TRANSMISSION



PI as a System Integrator Suggests

- ITO as PI Distributor and SI Partner since 1996
 - PI: What?
 - PI: Where?
 - PI: To whom?
 - PI: Why?
- RESULT: LIKE A MOBILE PHONE, ESSENTIAL

PI System

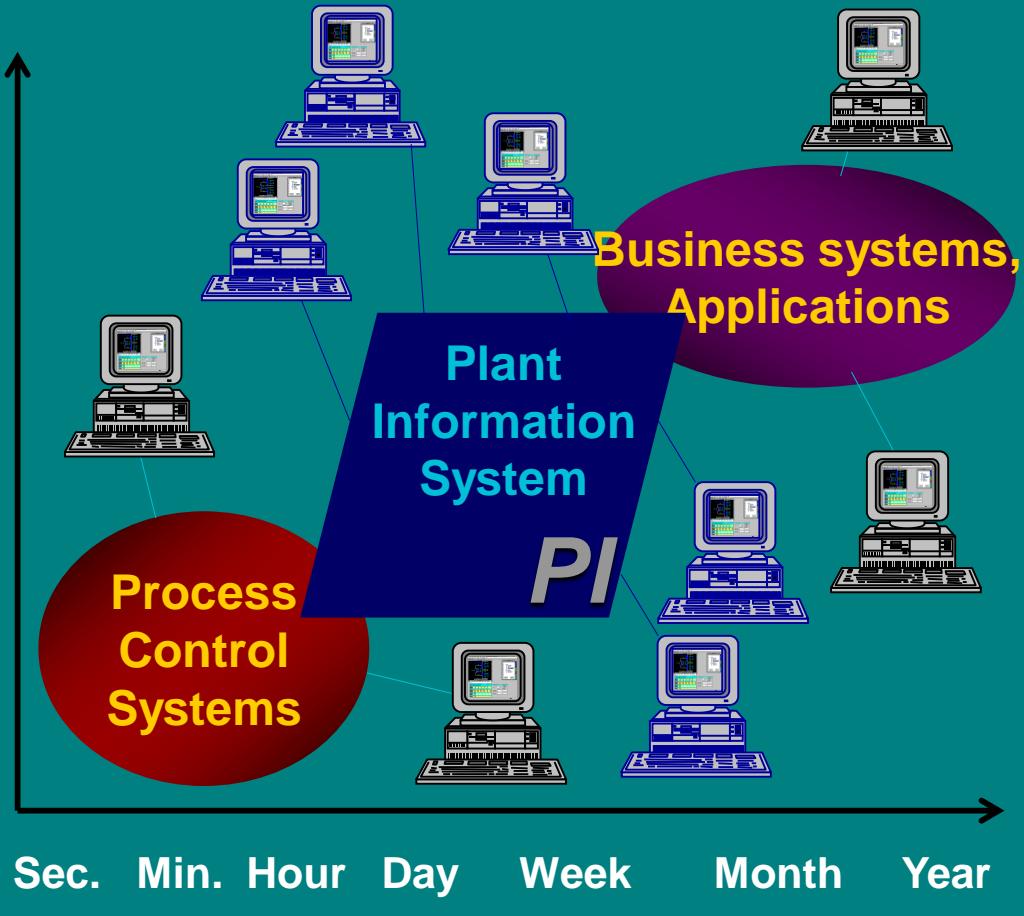
Enterprise

Plant group

Plant

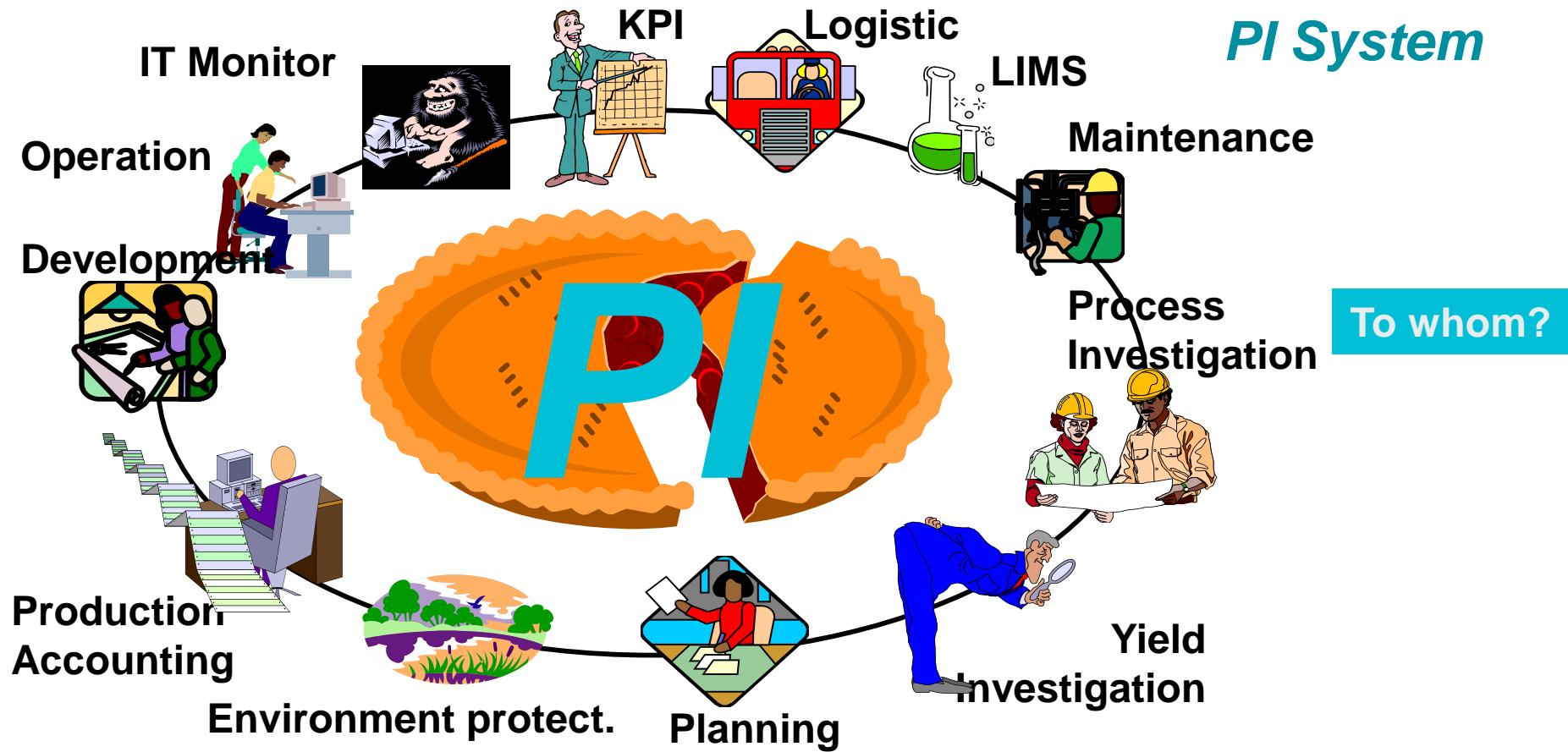
Unit

Loop

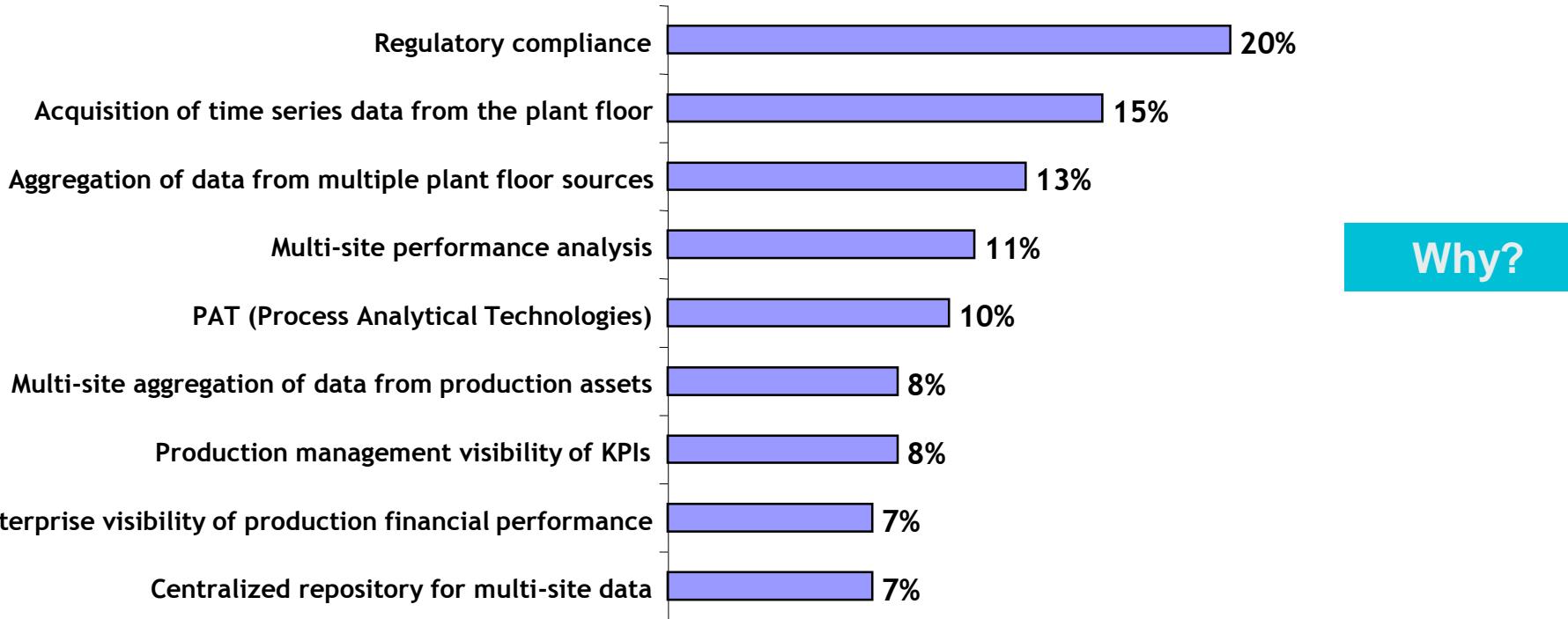


What?
Where?

PI System



Process Improvement Priorities *PI System*



AMR Research

PI System



Employees get 50%-75% of their relevant information directly from other people.



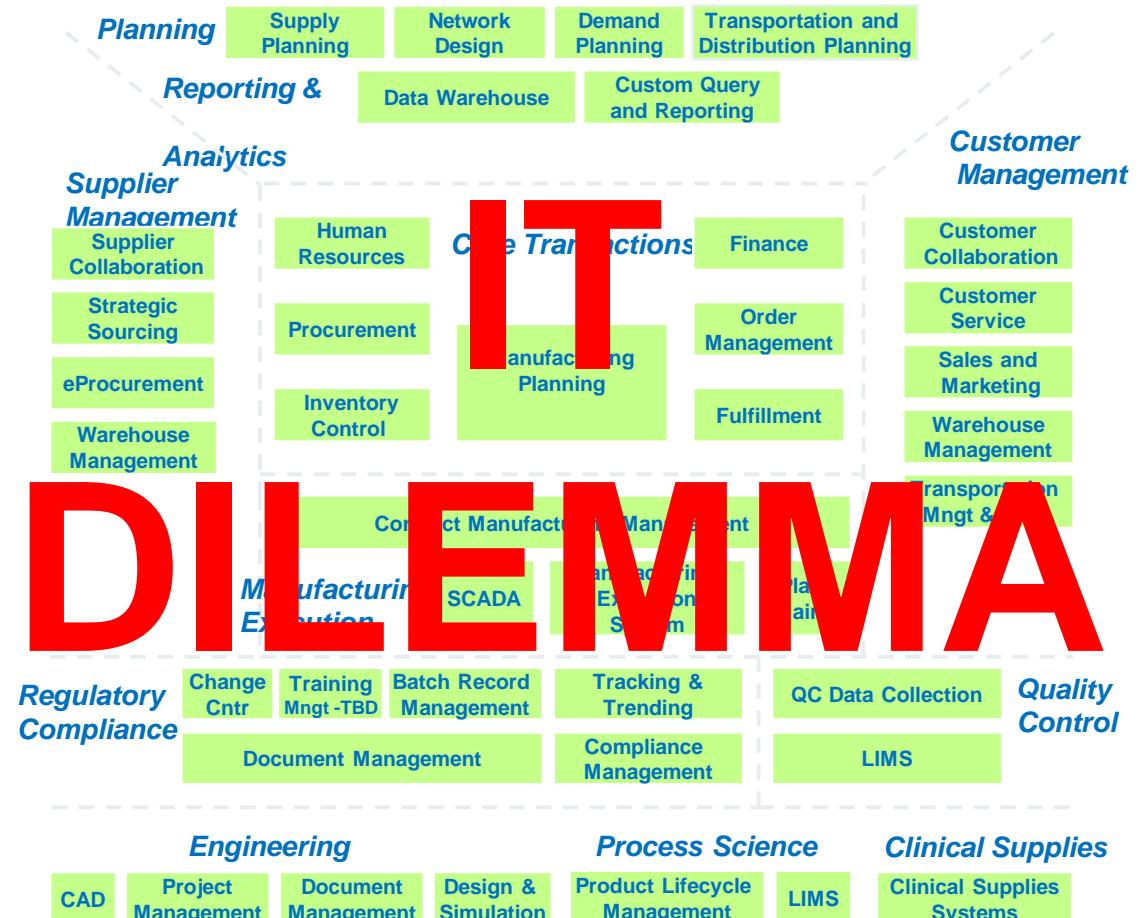
More than 80% of enterprise's digitized information reside in individual hard drives and in personal files.

Why?

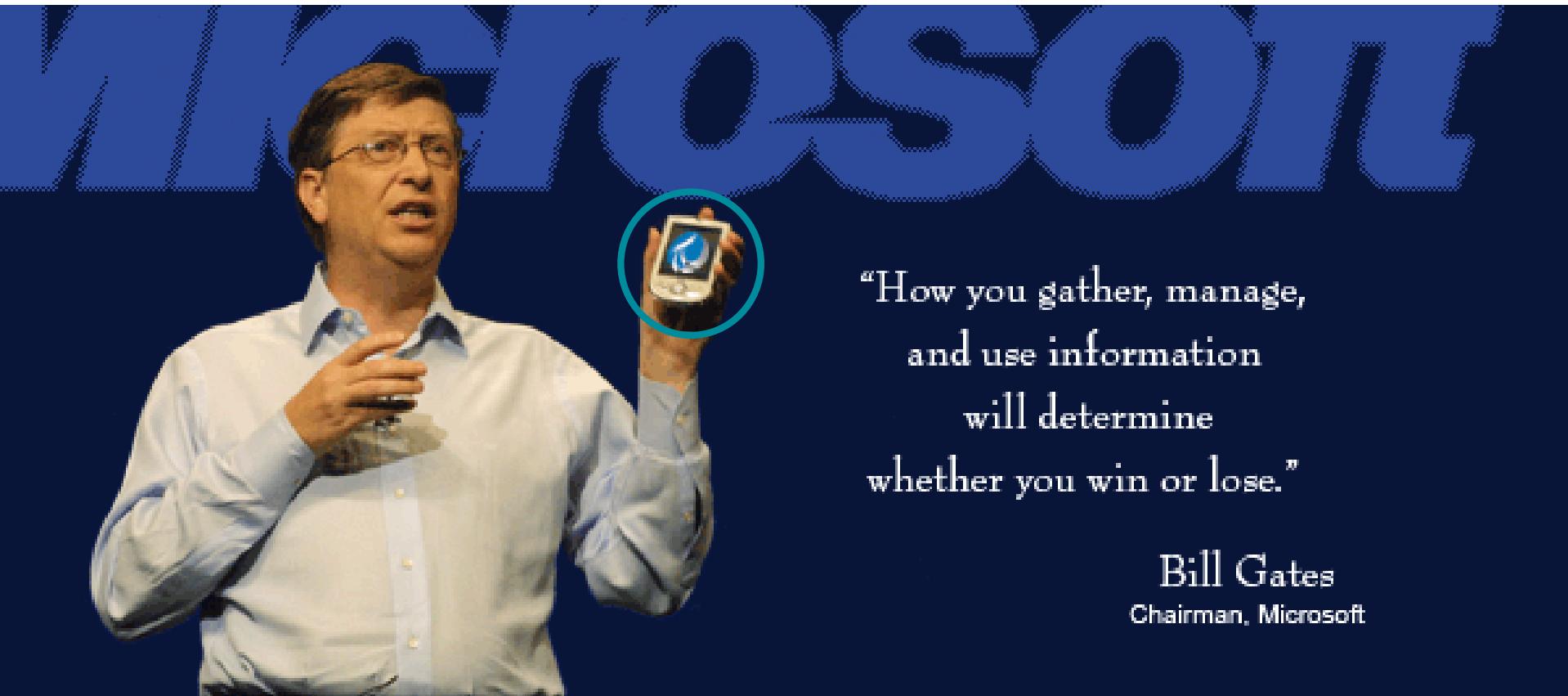


Individuals hold the key to the knowledge economy and most of it is lost when they leave the enterprise.

PI System



Why?



"How you gather, manage,
and use information
will determine
whether you win or lose."

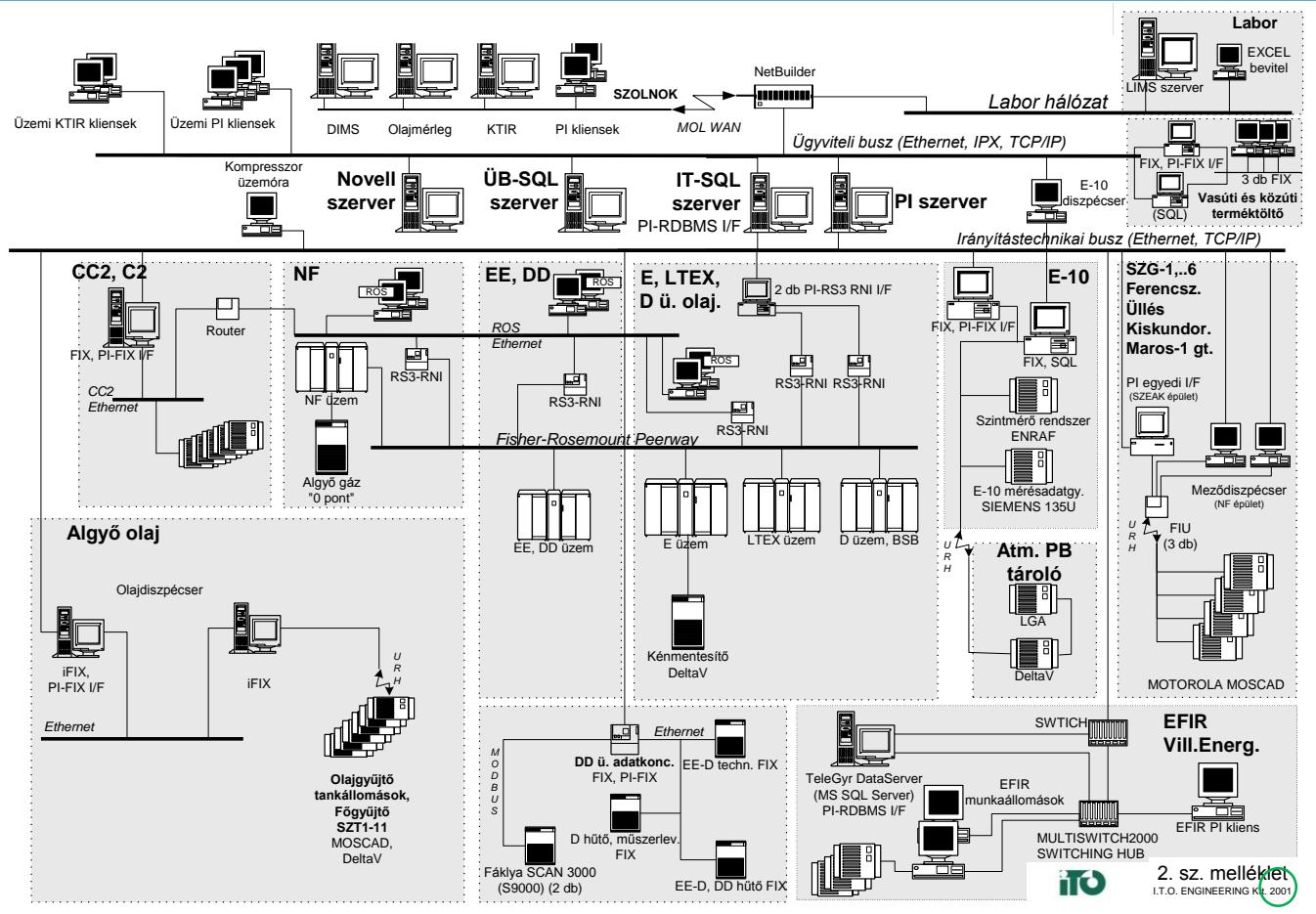
Bill Gates
Chairman, Microsoft

ITO's PI references:

delivery, application development, system integration, training, support

- MOL DS, Danube Refinery: 150000 TAG, SIGMAFINE, >20 interfaces, ~ 350 clients
- MOL US, Algyo: 20000 TAG, 6 interfaces, ~ 35 clients
- MOL US, Hajduszoboszlo: 20000 TAG, 2 interfaces, ~ 25 clients
- MOL US, Kiskunhalas: 10000 TAG, 6 interfaces, ~ 25 clients
- MOL US, Kardoskut: 5000 TAG, 2 interfaces, ~ 15 clients
- MOL US, Gellenhaza: 5000 TAG, 2 interfaces, ~ 15 clients
- MOL headquaters: Szolnok, Budapest: ~ 10 clients
- Dunamenti Power Plant (Electrabel): 5000 TAG, >15 interfaces, ~ 30 clients
- E.ON Foldgaz Storage/MFGT: 15000 TAG, 6 interfaces, ~ 30 clients
- Slovnaft, 150000 TAG, SIGMAFINE, 4 interfaces, ~ 350 clients (50 concurrent ones, web type)
- TVK Power Plant, Tiszaujvaros: 5000 TAG, 1 interface, 1 client (SIEMENS delivery)
- E.ON Nyiregyhazi Power Plant: 1000 TAG, 1 interface, 2 clients (Emerson delivery)
- Magyar Horizont Energia: 1000 TAG, 6 interfaces, ~10 clients
- MMBF: 8000 TAG, 3 interfaces, 10 clients
- MVM-GTER: Embedded PI in GE DCS system (GE delivery)

PI System



MOL US, Algyő



PI_kep_294 REV. 1.00

ALGYŐ, LTEX Etánmentesítő torony

2001/02/16 13:44:37



Fejgáz a Cold Box-re

Microsoft Excel - ADHOC.xls

3 m³/h

0 m³/h
-10.00 °C

Reflux a COLD BOX-t

Felső oldalforraltól
Középső oldalforraltól
Alsó oldalforraltól
2. szeparátor folyadéka
1. szeparátor folyadéka
Kilépő foly. hőmérséklet
75.00 °C

Szerkesztés Frissítés

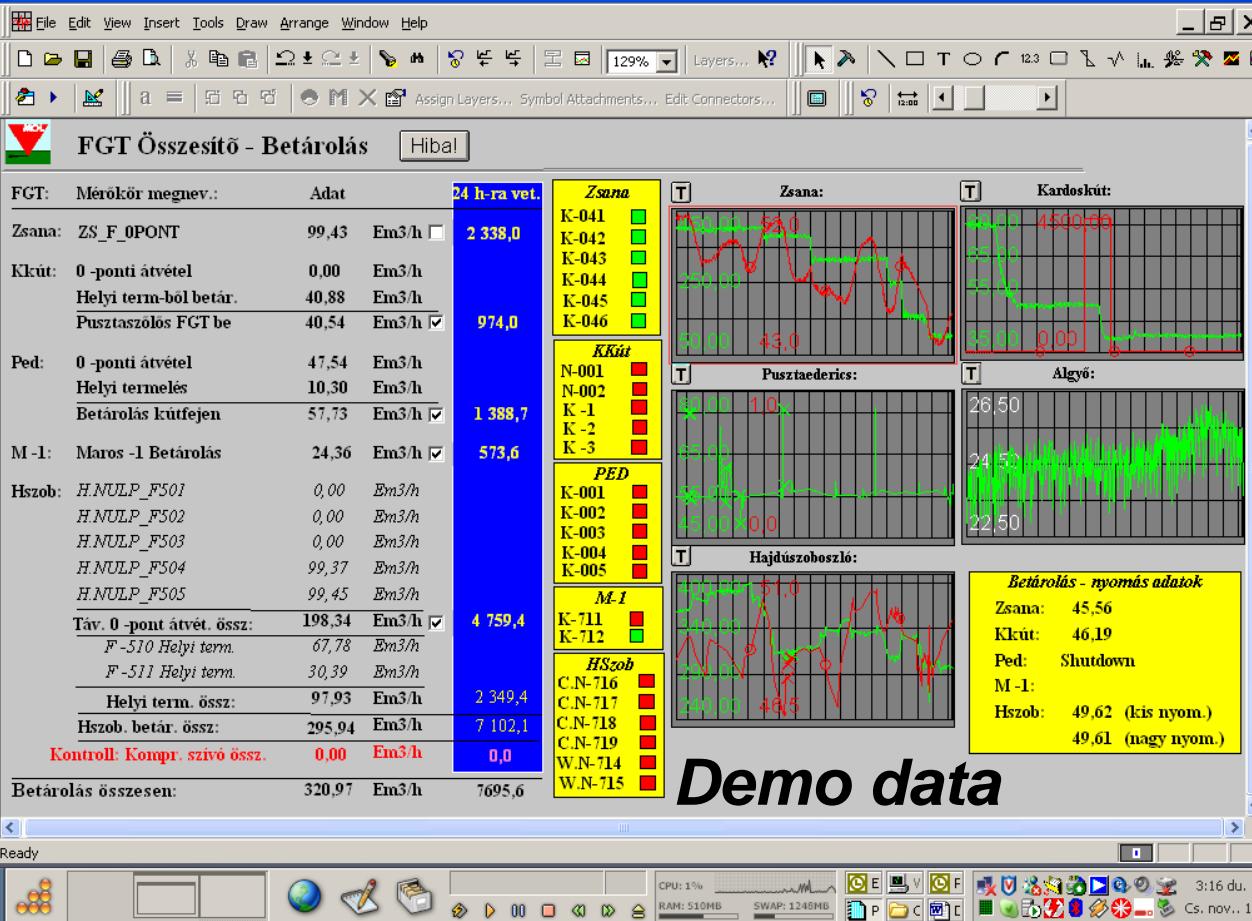
	Megnevezés	Körjel	PI mértékegység
12.	Megnevezés 1	ZS_FQ_257_KI	km3
13.	Megnevezés 2	SK_PT109	bar
14.	Megnevezés 3	SD_LICA106	%
15.	Megnevezés 4	SD_PIA101	BARG
16.	Megnevezés 5	SD_PIA102	BARG
17.	Megnevezés 6	SK_PT109	bar
18.	Megnevezés 7	SD_LICA106	%
19.	Megnevezés 8	VN_EX282_01	Specified server name
20.	Megnevezés 9	VN_EX282_01	Specified server name
21.	Megnevezés 10	VN_EX282_01	Specified server name
22.	Megnevezés 11	VN_EX282_01	Specified server name
23.	Megnevezés 12	VN_EX282_01	Specified server name
24.	Megnevezés 13	VN_EX282_01	Specified server name
25.	Megnevezés 14	VN_EX282_01	Specified server name

Egyedi táblázat 2001. May 18.

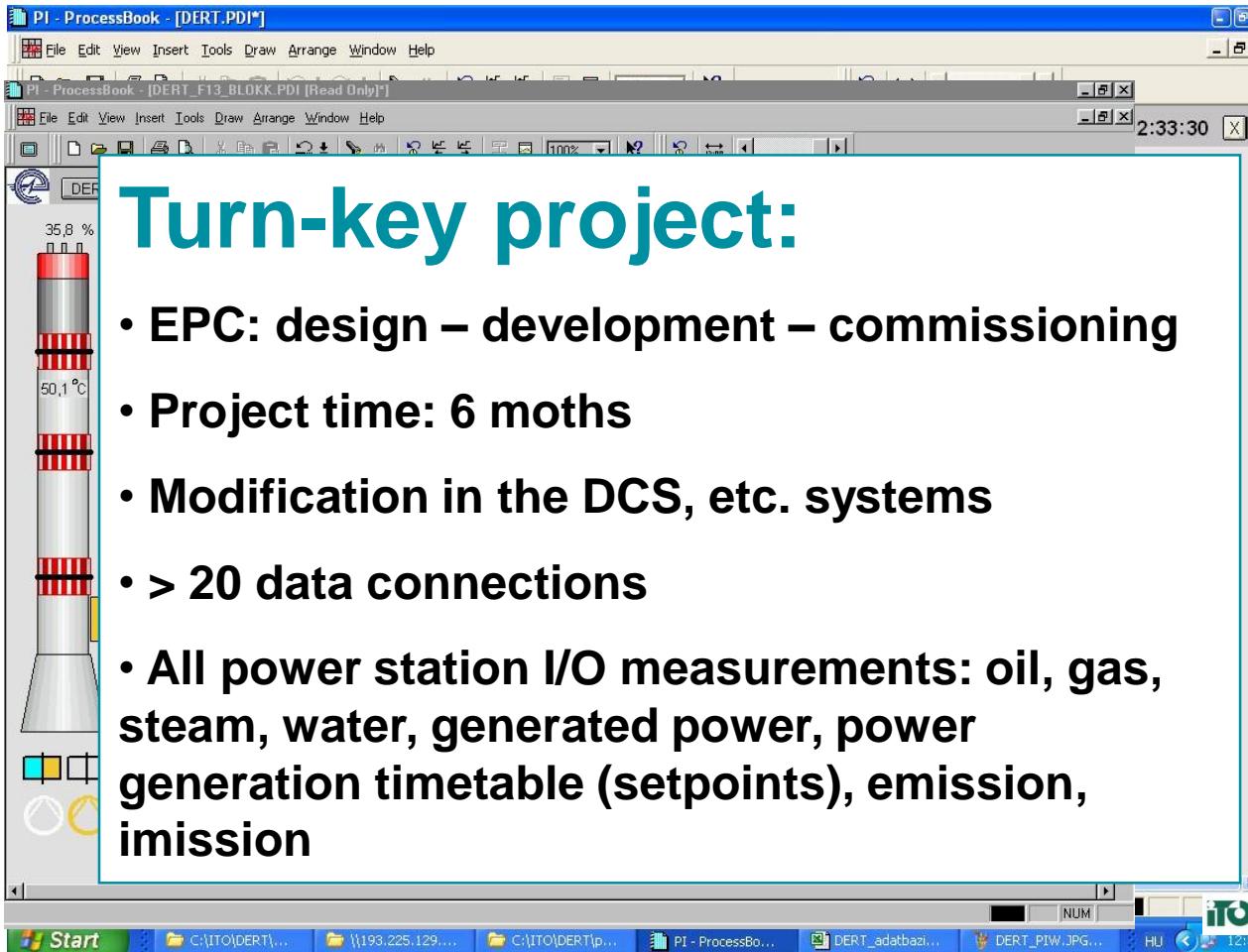
Pillanatnyi	1	3
2001/05/18 06:00	Aktuális év	
2001/05/18 07:00	Előző műszak	
	Előző nap	
223.86	Előző het	13.88
2.36	Előző hónap	2.95
6.27	Előző év	6.86
	Egyéni...	
3.00	2.90	2.79
2.88	2.86	2.83
2.60	2.90	3.19
6.47	7.00	6.79
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PI System

MOL US, Algyő



MOL/EFS/MFGT:
UGSs



Dunamenti Power

Turn-key project:

- Collecting all important process I/O values
- Dispatching system based on PI system
- Existing reports
- Manual data entry
- Data validation
- Production accounting
- Technical calculations
- Complex reports
- KPIs
- Flexible, open TOOL for nearly everything

PI System

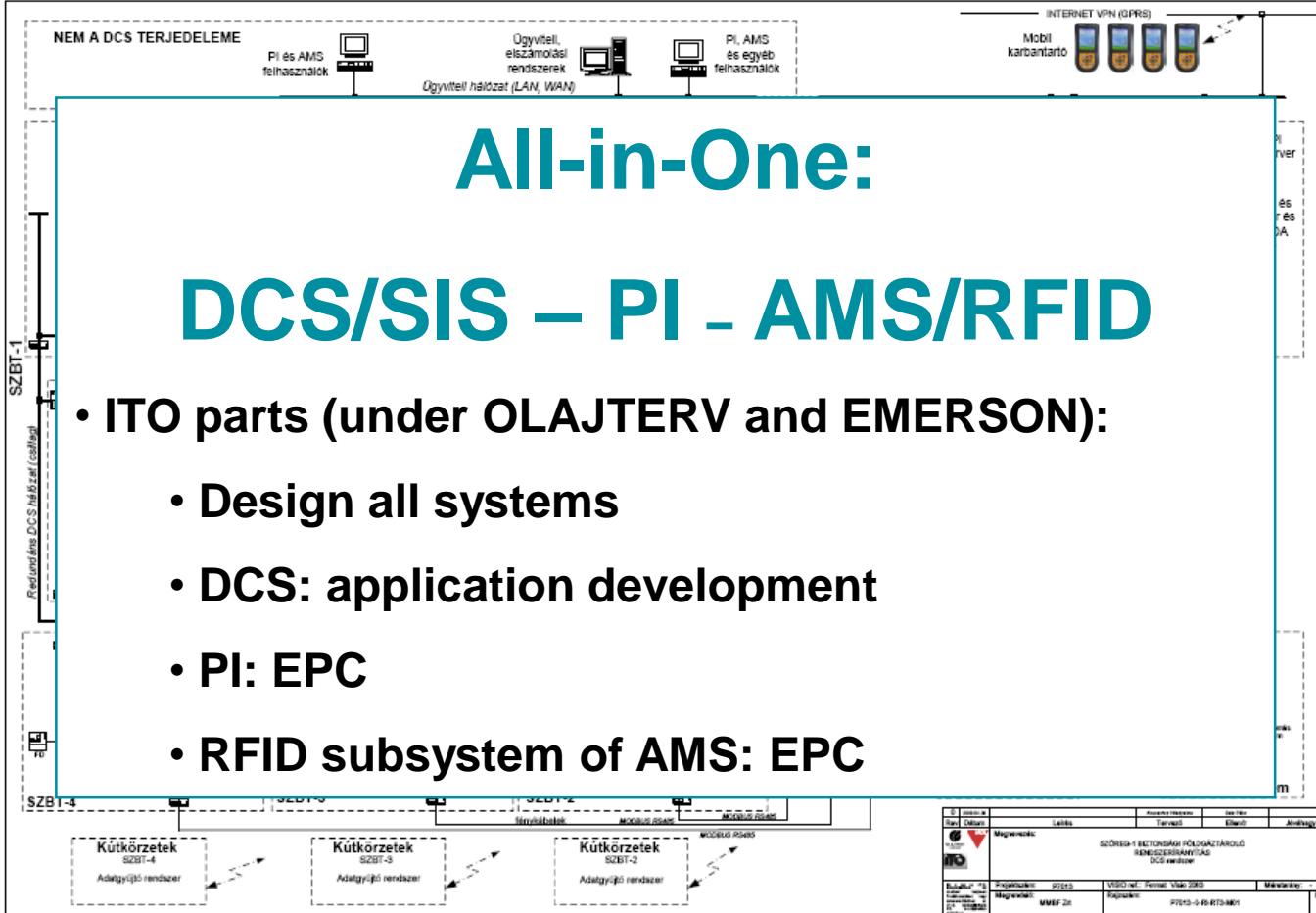
Dunamenti Power



All-in-One: DCS/SIS – PI - AMS/RFID

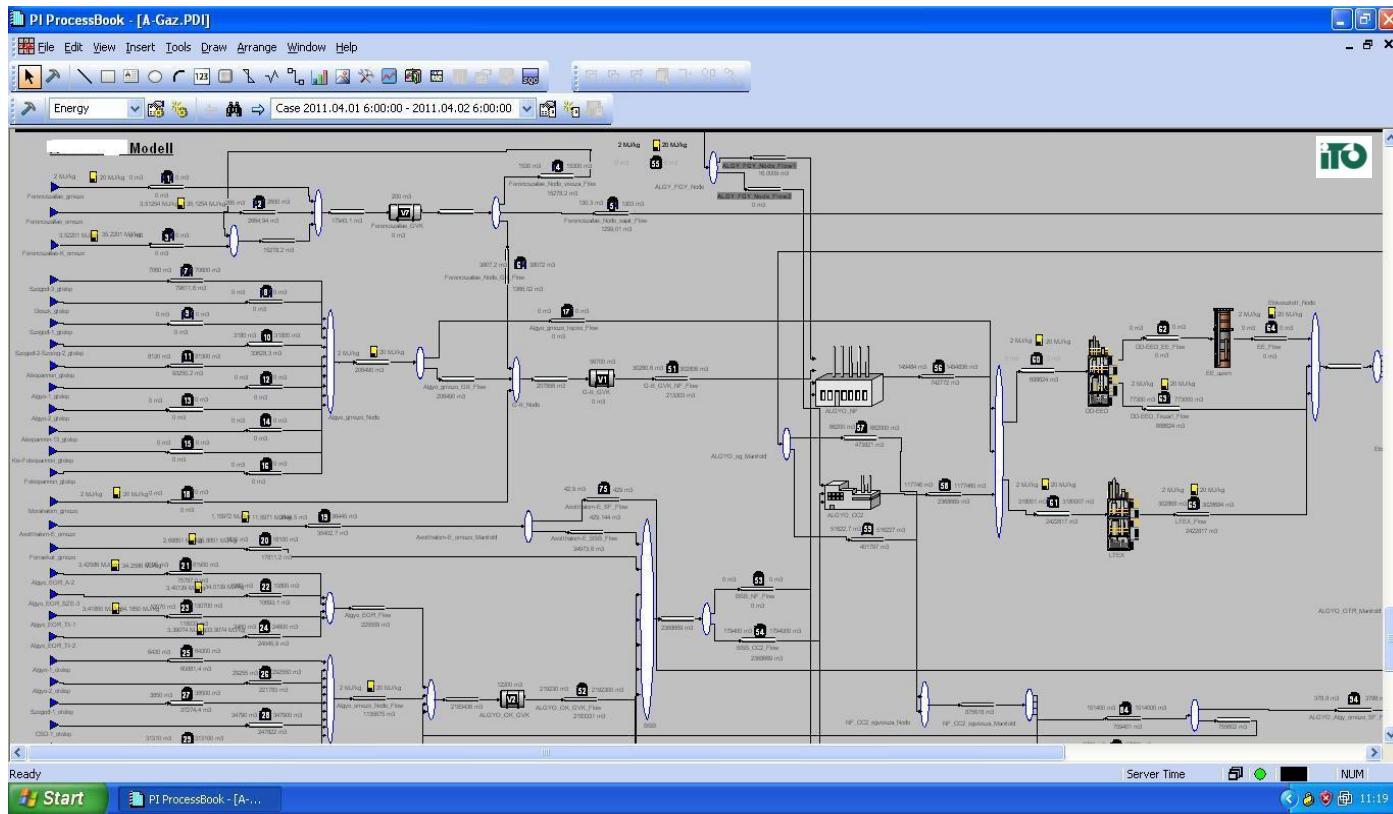
- ITO parts (under OLAJTERV and EMERSON):
 - Design all systems
 - DCS: application development
 - PI: EPC
 - RFID subsystem of AMS: EPC

**MMBF, Szőreg:
UGS**



PI and SIGMAFINE System

MOL US:
Integrated
Yield/Production
Accounting System



PI at

EASTMAN

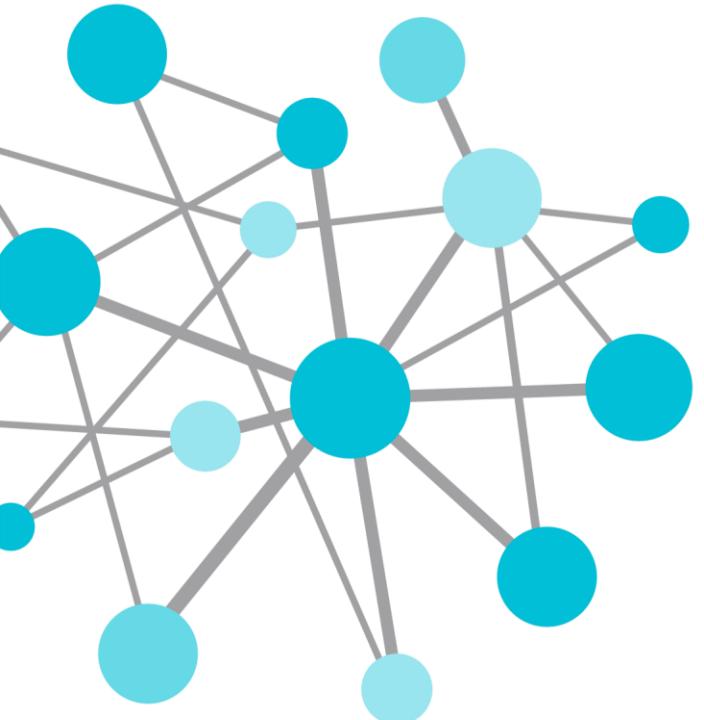


More than just dessert!

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- I.T.O ENGINEERING Ltd





THANK
YOU

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