## Trends in Project Management 2010 Dr. Ed Hoffman

## In 2010 we saw...

## Economic





## Technological





# Change.





"This is a time to swim with real humility...just because something has worked in the past so well doesn't mean it's going to work in the future. Now before I do anything, I ask myself, 'What type of mindset do I require to complete the task?"

~ Lewis Pugh (TED July 2010)



Transparency

"...unless organizations can demonstrate and explain the social purpose and the social value that they've fulfilled, they will fail....That wasn't the case 50 or 60 years ago, indeed probably not even 10 years ago."

~ David C. Schmittlein, MIT Sloan School of Management Dean

## Frugal Innovation

"Cost discipline is an intrinsic part of the process, but rather than simply cutting existing costs, frugal engineering seeks to avoid needless costs in the first place."

~ Strategy & Business, The Importance of Frugal Engineering

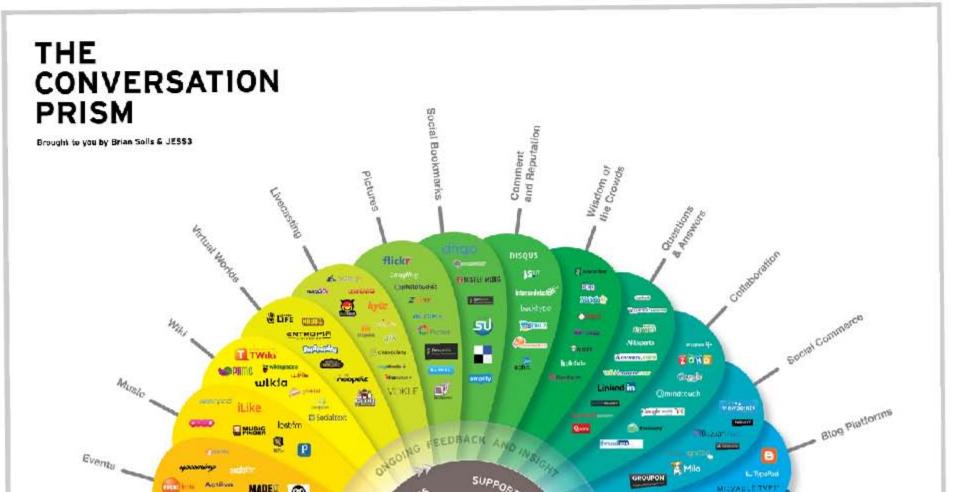


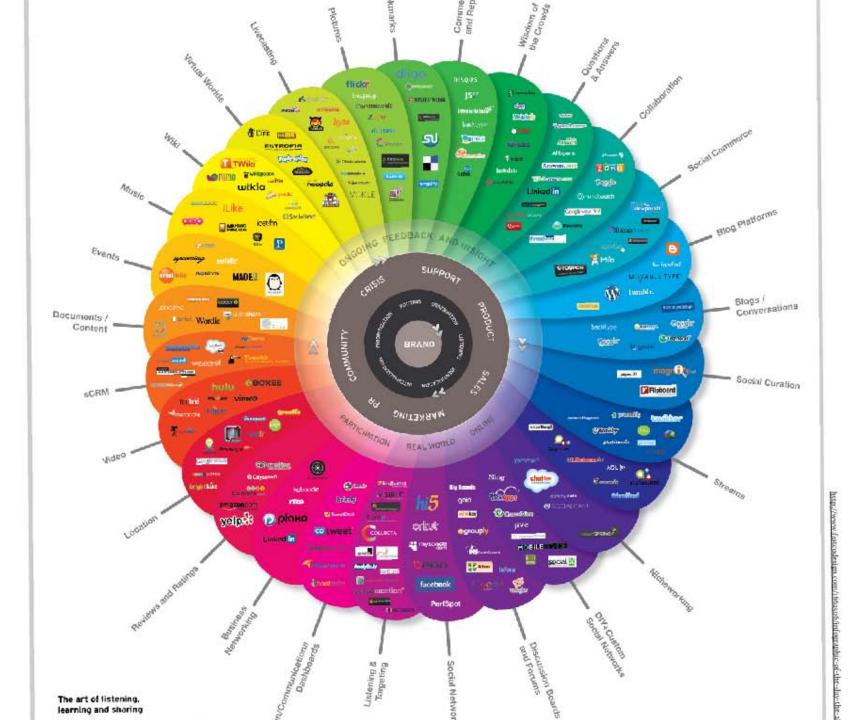
## ln 1965...

"... the somewhat frightening prospect of man's new capability to store a mass of information and, on signal, send it anywhere in the world."

- TIME Letter from The Publisher on the launch of Intelsat I ("Early Bird") (May 14, 1965)

## ln 2010...







### "A crowd is not a network." - TJ Elliot

"Ultimately we now live in a world that is defined not by consumption, but by participation."

LOQA

- Ben Cameron, TED 2010

# lomorrow

Games. Young Professionals. International Partnerships.

"A consensus will emerge that we are all responsible for our world and must work together to make it better – and we'll all wonder how we could have ever thought otherwise."

- Harvard Business Review, "Leadership in the Age of Transparency", April 2010

This Slide Left Blank

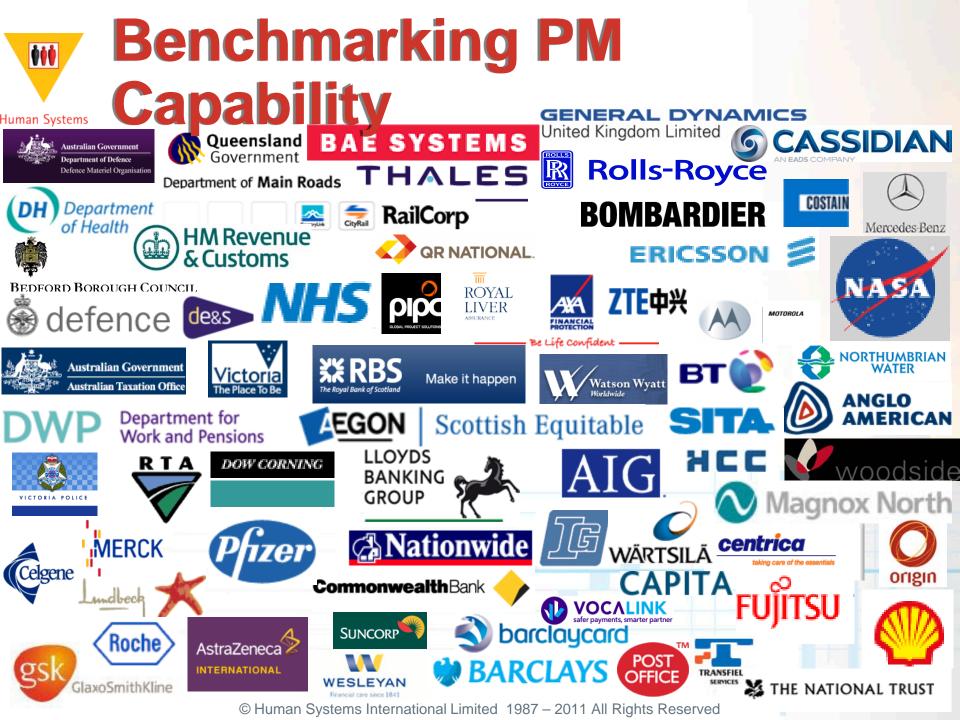
### NASA APPEL – Driving towards PM 2.0?

#### **Dr. Terry Cooke-Davies**

Group Chairman Human Systems International Limited

#### Human Systems

**İİİ** 







## MiDubai Workshop –Human SystemsNovember '07



7 powerful presentations by eminent speakers from leading global PM organizations

Delegates from 17 leading PM organizations

Reflection and assimilation of learning facilitated by Human Systems





- Dr Volker Stroenisch, VP Project Management, Bombardier Transportation
- Norman Haste, OBE, COO, Al Naboodah Laing O'Rourke
- Dr Charlie Pellerin, President, 4D Systems
  - Hans Wierda, Head of Shell Project Academy & Frans van Gunsteren, Director, Shell Nanhai Project
  - Paul Goodge, Head of Project Management UK & Rest of World, BAE Systems
  - Dr Hiroshi Tanaka, President, Japan Project Management Association
  - Carol Feeney & Liliana Gehring, Lily Research Labs

## Focus on Five Questions

- What is the nature of complexity in projects that makes so-called 'complex projects' more difficult to manage than other projects?
- What are the specific skills required of the managers of projects with a high degree of complexity?
- How can an organization be sure that it will have sufficient people with the right level of skill to deliver the projects and programmes necessary to implement its chosen strategy?
- How can an organization develop these people? How can it take people who are competent to manage 'painting by numbers' projects, and develop the necessary skills and abilities to manage and lead projects with a high degree of complexity?
- From personal experience, what was it that changed in their lives for people who could demonstrate a track record of the successful leadership and management of projects with a high degree of complexity?

### Assessment - Five Topics + 9 Sub-Topics

- Extent of People Being Developed
  - Project Management Community
  - People to be Developed
- Nature of Development

**İİİ** 

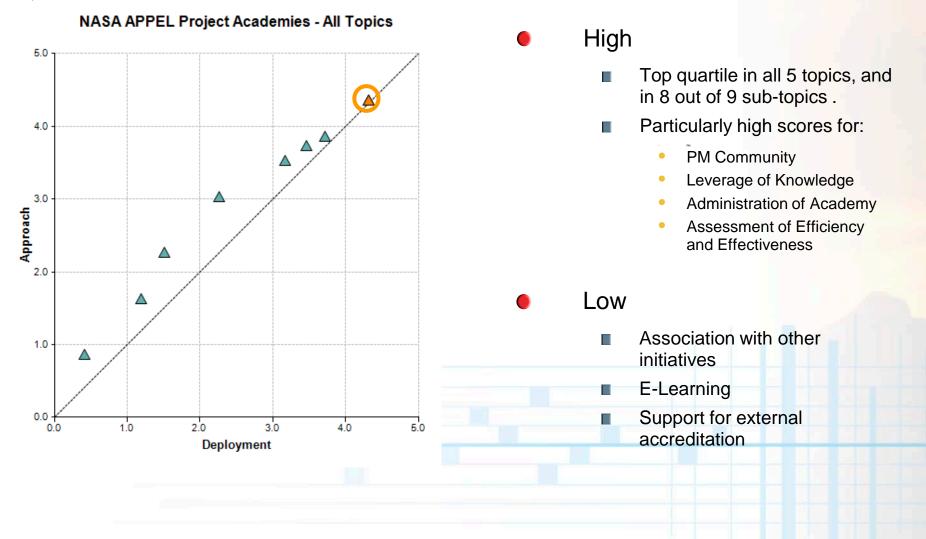
Human Systems

- Content of Curriculum
- Delivery of Development
- Sources of Knowledge
  - PM Associations
  - Leverage of Knowledge
- Keeping Track
  - Administration of Academy
  - Assessment of Efficiency & Effectiveness
- Results achieved
  - Qualitative Results Accomplished

## **APPEL Achieves Highest Score**

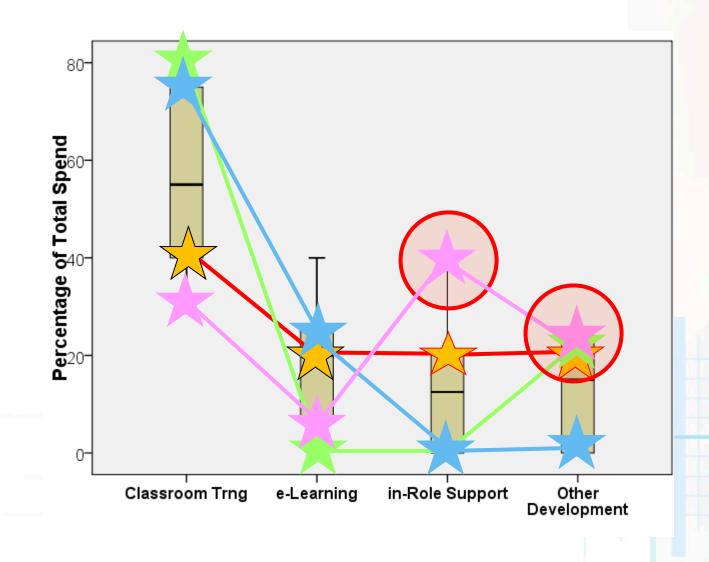
#### Human Systems

İİİ

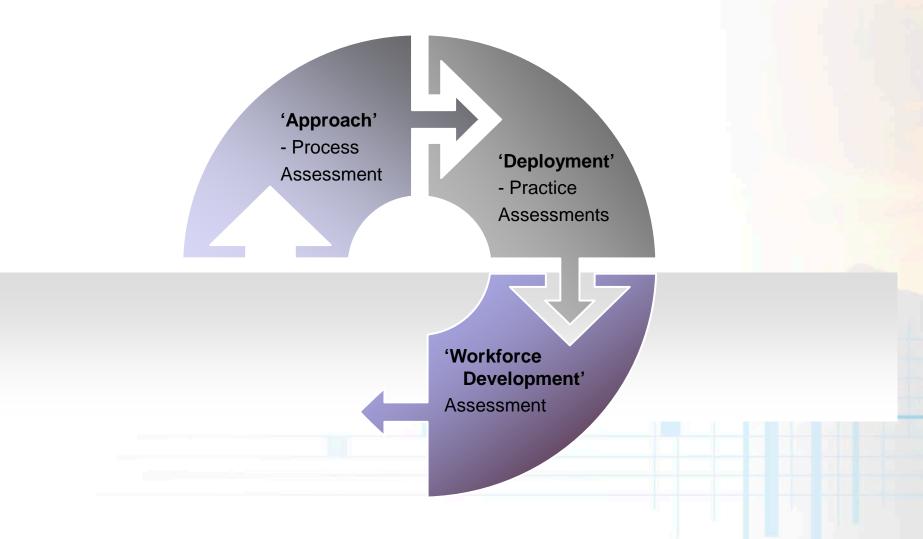


#### İİİ **Profile of Resource Spend**

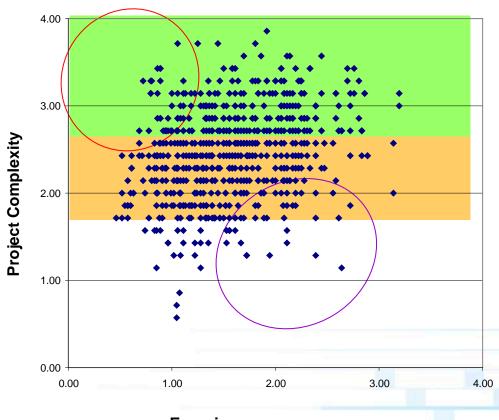
Human Systems



## Human Systems Adding Workforce



### **Corporate Results: Experience vs. Complexity**



Experience

• Comparison of Experience (combination of company and project experience)

•Majority of projects are moderately complex and are being managed by candidates with a moderate level of experience

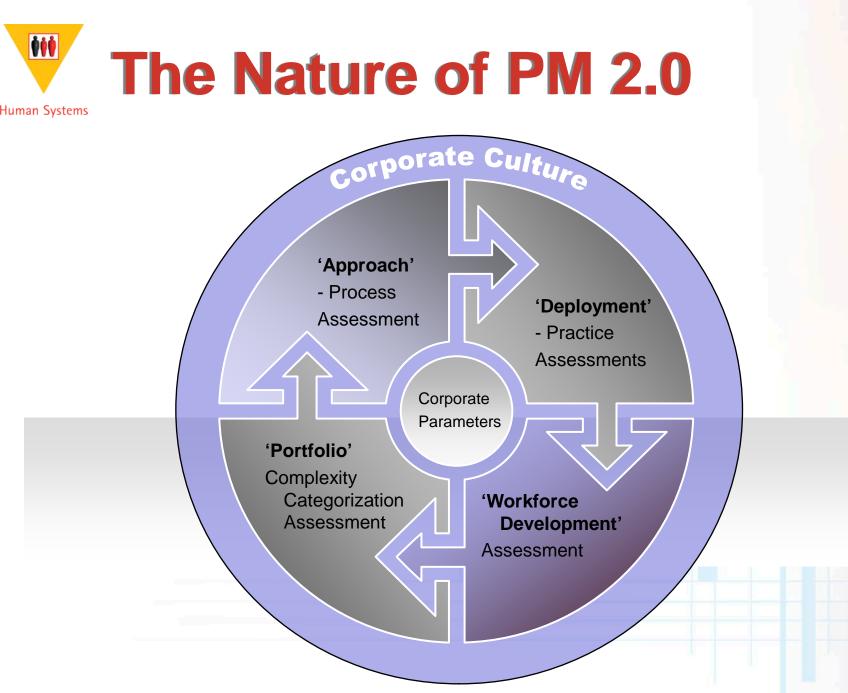
•Red circle highlights low experience managing extremely complex projects. Note: may be partially explained through low experience producing inaccuracy in the estimation of complexity

•Purple circle highlights high experience individuals assigned to very low complexity projects

#### Moderately complex Projects

**More detail** 

Very complex Projects © H



### NASA APPEL – Driving towards PM 2.0?

#### **Dr. Terry Cooke-Davies**

Group Chairman Human Systems International Limited

#### Human Systems

**İİİ** 



#### Towards an 'virtual' DLR Academy

NASA PM Challenge 2011 09th Feb 2011, Long Beach CA

Mr. Rüdiger Süß Project Manager Corporate Strategy and Alliances

**Dr. Petra E. Georgi** Head of Project Management Support









#### **Sites and Staff**

6.700 employees30 research institutes and facilitiesoverall budget 1.4 billion €

13 + 2 Sites (new)

Offices in Berlin, Brussels, Paris and Washington D.C.





# **Activities within DLR concerning Project Management**

#### **Projects**

. . .

- Third party financed projects (public/ governmental/ industrial)
- Internal funded projects
- Project Management Support

Players: Scientists, PM Support,

#### **Processes**

- Core Process
   "R&D"
- Support Process
   "Contract
   Management"
  - Management"
- Support Process "Resources Planning and Controlling"

Players: Corporate Strategy, QM, Legal, ... Qualification

 Education Program; training courses

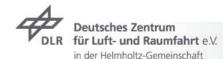
Players: HR, PM Support,

. . .

#### Initiatives

 Corporate projects
 f. ex. "Development of a DLR PM career path"

Players: Corporate Strategy, PM Support, ...



Folie 4 Vortrag > Autor > Dokumentname > Datum

# **Activities within DLR concerning Project Management**

#### Integration into an institutional DLR PM Academy?

#### **Projects**

. . .

- Third party financed projects (public/ governmental/ industrial)
- internal funded projects
- Project Management Support

#### **Players:** Scientists, PM Support,

#### Processes

- Core Process
   "R&D"
- Support Process "Contract Management"
- Support Process "Resources Planning and Controlling"

Players: Corporate Strategy, QM, Legal, ... Players: HR, PM Support,

. . .

Qualification

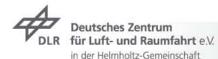
• Education Program;

training courses

#### Initiatives

 Corporate projects
 f. ex. "Development of a DLR PM career path"

Players: Corporate Strategy, PM Support, ...



# **Projects at DLR (I)**



#### **Public / Governmental Financed Projects**

- ✓ Federal Ministries of Economics and Technology; of Defense
- ✓ Ministries of the Federal States (Bavaria, Hamburg, Berlin, …)

### **Third Party Financed Projects**

- ✓ Federal and federal state funded projects
- → National and international industry
- → European Commission
- → Agencies: ESA, EDA, EASA, …
- → Other research funding organizations, foundations
- → Universities

## **Public Private Partnerships**

 F. ex. "TerraSAR-X" (DLR R&D: Ground services and operating, DLR as Space Administration: Managing budget, Industry: Manufacturing of the satellite)

## **Organizational / Administrative / Corporate Projects**

Processes, Human resources, Infrastructure, …

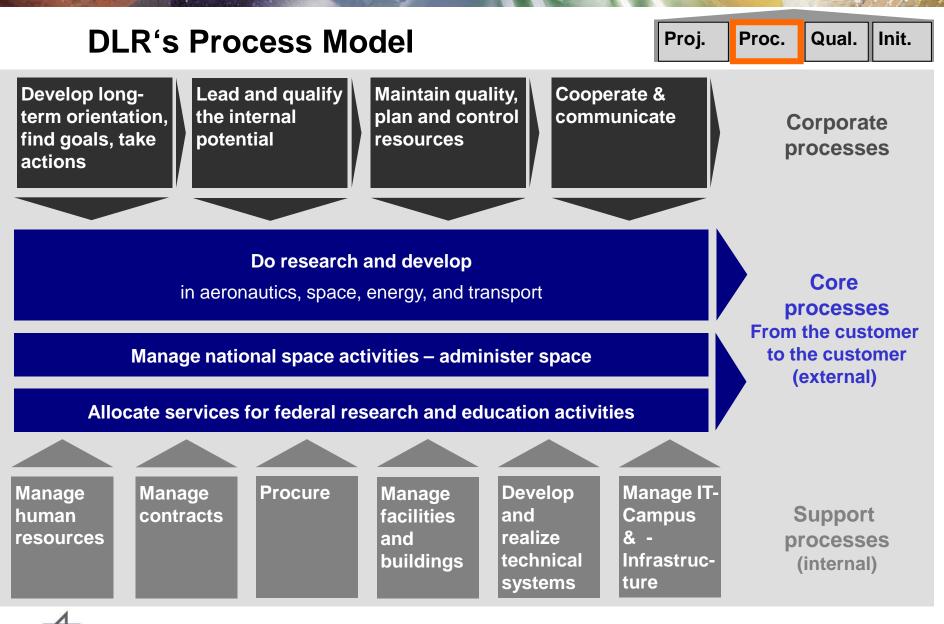


# Projects at DLR (II)

Proj. Proc. Qual. Init.

- ✓ More than 220 internal funded projects in DLR R&D
  - More than 2100 third party funded projects in DLR R&D (third party R&D budget approx. 300 million € in 2009)
- → 860 active project managers in 33 institutes and facilities





Deutsches Zentrum für Luft- und Raumfahrt e.V. in der Helmholtz-Gemeinschaft

# PM in DLR's HR Development/ Education Program

## **DLR Education Program**

- → Several qualification courses concerning PM; for example
  - since 2000: 4 days "PM Intensive Course"  $\rightarrow$  more than 600 participants
  - 2009 Start: "Preparation for the PMP"  $\rightarrow$  about 20 PMPs
  - 2011 Start: "Risk management for complex projects"
- Since 2009 DLR Graduate Program
  Qualification / Training of PhD candidates in project management, presentation / moderation / communication skills, ....
- Each year: more than 300 courses for leadership, team building, soft skills ...
- Coming soon:
   Project Manager Development Program with an extended PM course program





## **Project Manager Career Path**

Proj. Proc. Qual. Init.

- → Increase the quality/ professionalism of PM @ DLR
- Implementation of a project manager career besides the management career
- Strengthening of the employer branding "DLR", and increasing of the visibility of DLR as an employer
- ✓ Keeping more top performers

#### Project manager career path framework

- ✓ Design of a 4 career grades
- ✓ PM career grades comparable to grades in management career
- → Definition of requirement profiles for the 4 grades
- Design of a Project Manager Development Program
- June 2011 Roll out of the Project manager career path in selected institutes (max. 4 institutes) and evaluation of processes
- → From 2012 DLR-wide roll out of the Project manager career path



# **PM Support Department (I)**

Players

## Organization

- Strategic PM support Recourses Planning and Controlling Process
- Operational PM support Contract Managing Process

## Strategic PM support tasks

- Common PM standards within DLR
- ✓ Implementation of DLR-wide PM standards for all RTD projects
- Development of Tools, IT tools and Procedures for an integral PM Approach at DLR
- Implementation of a project management career path beside the management career, definition of internal training courses for PM

## **Operational PM support tasks**

- Project management of large and complex projects by operating Project Offices (e.g. Galileo)
- Provision of Project Support Teams consisting of administrative project managers, lawyers, contract managers and purchasing managers (e.g. Columbus)
- Coaching and support of project managers and project teams



# **Conditions and Needs**

- Dealing with very different kind of projects: size, complexity, value, formation of team, skills/ know-how, customers (scientific, governmental/ industry or all of them/, corporate, ...), international, internal culture, ....
- Regarding external conditions (certifications asked by customers, regulatory policies, ...)
- → Administrative/ Corporate issues are organized via processes
- $\neg$  DLR-cultural issues (ways of thinking, ...)
- Projects become more and more complex (project structure, stakeholder, partner ...)
- Contradiction between scientific/ industrial research project and the regulatory policies framework of DLR
- Projects at DLR have high risks due to fixed price contracts and moving targets





# Conclusion

- ✓ Very good Project Management Skills are a "must have"!
- → Take into account the internal "working" culture of a company
- ✓ Improving project management skills within DLR
  - → Quality, precision, sustainability, reliability, international recognition
- Existing mixture between process orientation and matrix organization

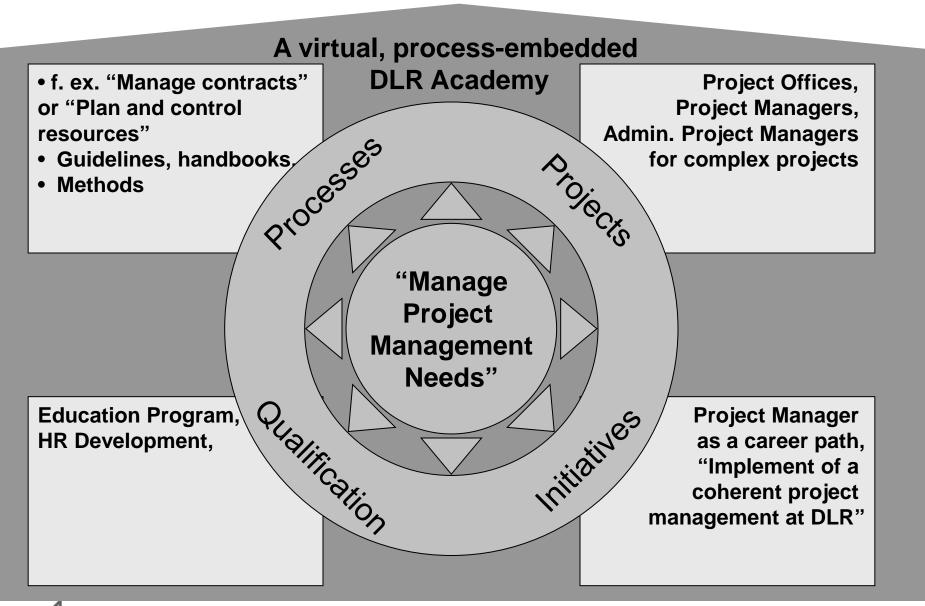


therefore DLR established a coordinating activity:

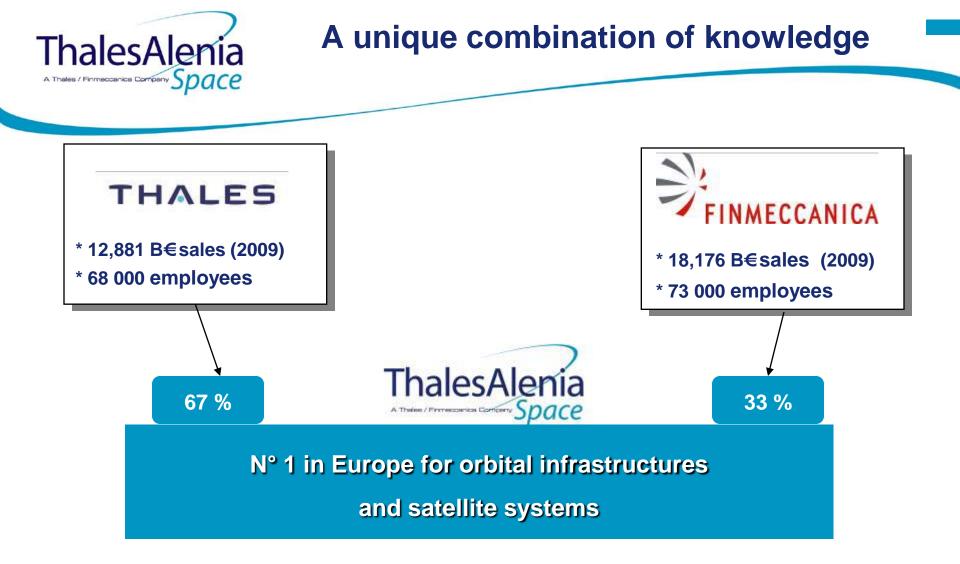
#### "Implementation of a coherent Project Management at DLR"

- → Guidelines competence at DLR: Project Management Support Departm.
- Process Owner: Chairman of the Executive Board
- → Embedded in the Corporate Strategy





Deutsches Zentrum
 für Luft- und Raumfahrt e.V.
 in der Helmholtz-Gemeinschaft







# **Thales Alenia Space Business Places**

## 7,200 Employess

- 11 Industrial sites in Europe
- Certifications: ISO 9001, EN 9100, AQAP 2110, CMMI level 3, ISO 14001 (for Toulouselosa, Milano, Charleroi e Madrid)

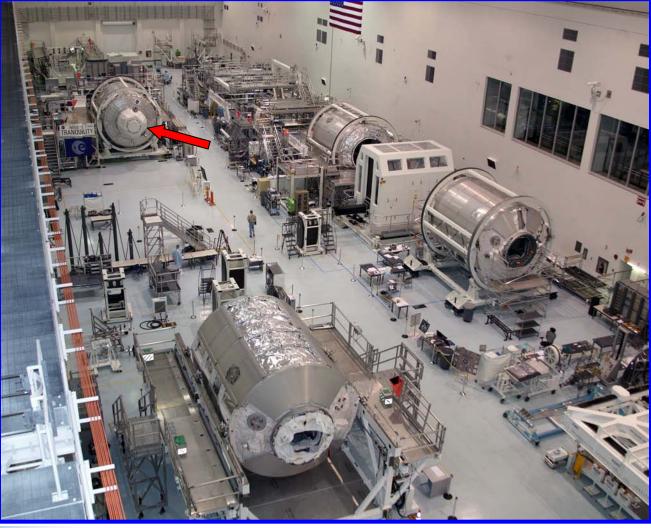
**HQ** 







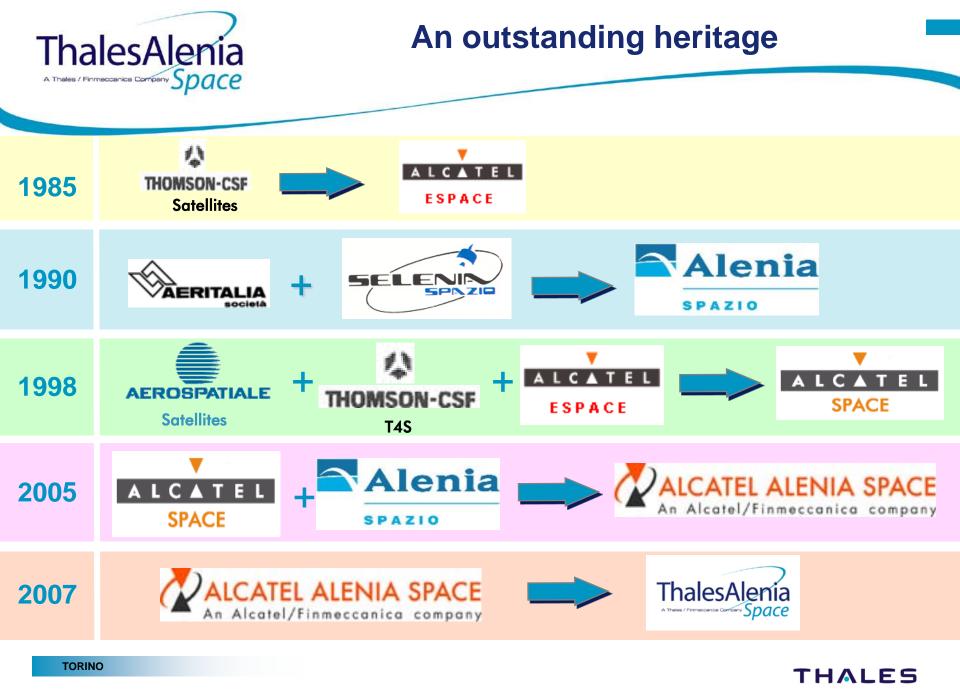
## **TAS-I Built Modules at the SSPF**







All rights reserved © 2007, Thales Alenia Space



All rights reserved © 2007, Thales Alenia Space



## **Thales University:**

#### **Promoting training within the Group**

The University works with the Group companies in order to build more efficient training strategies. Training programme design teams consisting of Thales Group trainers and associated Professors work together to deliver customised, dedicated courses for Thales employees. As Loïc Mahé, Senior Vice President - Human Resources said: "Training has to be seen as an investment, either to access and facilitate individual career paths, or to deploy Thales' key projects: TU is there to drive and promote training within the Group".

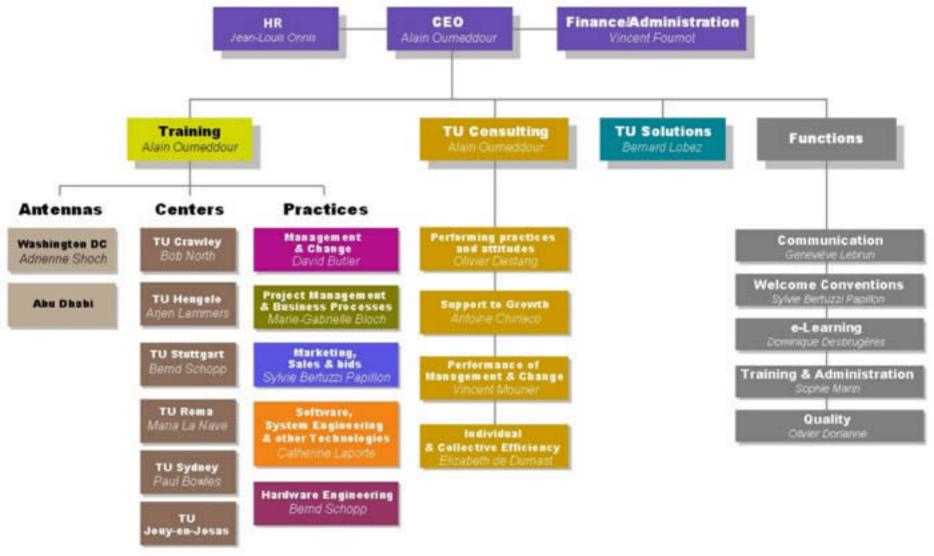
#### **Customized training programmes for the Divisions**

Working with its strategy and consulting departments, the University develops a range of customized training programmes and consulting solutions in order to help the Group Units achieve their aims and manage change and development.

#### **A Global University**

As Thales becomes more international, so does the University. With existing sites in France (Jouy-en-Josas), UK (Crawley), Netherlands (Hengelo), Germany (Stuttgart), Italy (Rome), USA (Washington DC) and Australia (Sydney), training courses are also run onsite for Thales companies around the world.

THALES





Sites

# Thales University

#### Abu Dhabi

Crawley

Hengelo

Jouy-en-Josas

Roma

Stuttgart

Sydney

Washington DC