

Multiphase Boosting Technology 2010

Dipl.-Ing. Gerhard Rohlfing
Technical Director



as time passes by ...



as time passes by ...

- 1980 – 1990 from Vision to Definition
- 1991 – 2000 the Decade of Pioneers
- 2001 – 2010 from Pump Units to Multiphase Boosting Technology
- 2011 – 2020 Multiphase Flow Assurance for Challenging Fields of Tomorrow

1991 – 2000 the Decade of Pioneers



Poseiden Project
Tunisia 1991

Demonstrator for
Twin Screw Working Principle

1980 – 1990 from Vision to Definition



Vorbereitungsprojekt
Multiphase -
Transport - Technik

Vorbereitung und Beginn

CS- und Copolymerisation
in schweben suspendierten oder emulsierten Systemen

Gegenüberstellung der Investitionskosten in Mio. US \$
MTT versus konventionelle Entwicklungstechnik

Anlageart	4.1.1988		8.11.90		1998	2010
	4000	4000	4000	4000		
MTT	200.0	200.0	275.1	285.0	2200.0	2200.0
konventionelle Technik	227.0	285.0	300.0	350.0	2700.0	2700.0
Investitionsdifferenz	-27.0	-85.0	-22.9	-65.0	-500.0	-500.0
Investitionsdifferenz %	-13.5	-21.2	-8.3	-18.8	-22.7	-22.7
Investitionsdifferenz in T J	22.500	22.500	22.500	22.500	22.500	22.500

MTT Research Project

1991 – 2000 the Decade of Pioneers



Exxon Mobil
Germany
1993

First Application
of basic
Multiphase Patent
EP 0699 276

1991 – 2000 the Decade of Pioneers



Arecuna
Venezuela
1996

First Multiphase
Field
Development

2001 – 2010

from Pump Units to Multiphase
Boosting Technology



Chances
and
Challenges ...

1991 – 2000 the Decade of Pioneers



Petrozuata
Venezuela
1998

World biggest
Multiphase Pump
1350 kW

2001 – 2010

from Pump Units to Multiphase
Boosting Technology



Turnkey
Solutions with
integrated
Safety System
for Desert as
well as for
Arctic Condition

2001 – 2010

from Pump Units to Multiphase
Boosting Technology



**Research
Projects**

Rütenbrock
Germany
MPT(MPA)
Project



Demonstrator
MBS-Project

Thank you for your kind Attention!

dedicated to the German Ministeries of Economy,
Research and Education and PTJ (Project Management)

and to all Pioneers of the last 3 Decades



2011 – 2020

Multiphase Flow Assurance for
challenging fields of tomorrow

