



# **Strategic Workforce Planning**

Dr. Christopher Daniel *Project Leader, Dubai* 

February 8, 2011

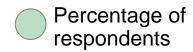
THE BOSTON CONSULTING GROUP

# Only 15% of companies plan their work force needs more than three years into the future



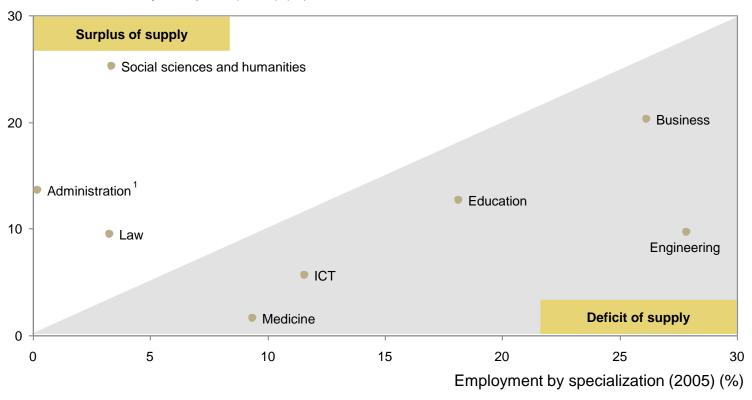
1 year 2 years 3 years 4 years 5 years 6 years and more

Time horizon for strategic planning
The Boston Consulting Group



#### Higher Education Specialization Supply versus Labor Market Demand in UAE

Student enrolment by discipline (2005) (%)



<sup>1.</sup> Administration includes among others public administration and affairs, translation, general secretariat, etc Source: BCG Analysis

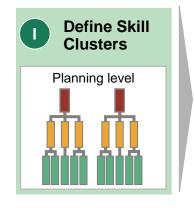
# Strategic workforce planning: typical weaknesses at many companies

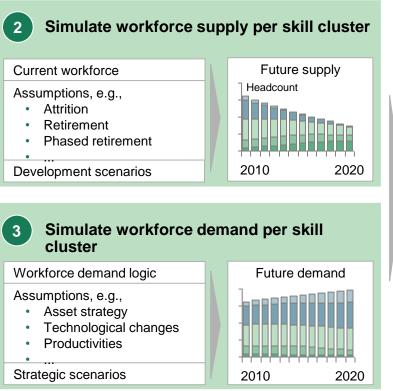
- 1 Workforce planning only has a very short-term orientation
- 2 Pure capacity planning without differentiation by qualification or job families
- 3 Often no workforce demand planning with link to company strategy
- 4 Recruiting and training goals often not systematically deducted from company strategy
- 5 Qualification programs often not systematically deducted from company strategy
- 6 Internal transfer potential from surplus to shortfall often not used
- 7 Capacity reduction often with "lawnmower" method
- 8 Demographic challenges often not systematically addressed
- 9 Integration of HR department into strategic discussions often not happening

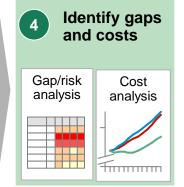
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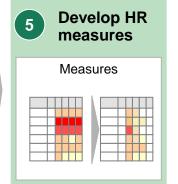
## **BCG's Strategic Workforce and Cost Planning Approach**

Very well proven approach

















# Methodology has been proven in multiple projects

Extract of project references



# DAIMLER









**Lufthansa Technik** 











# Clustering of employees based on skills and experience

Skill clusters

Pair-by-pair comparison with regard to exchangeability



#### Job family groups

≤ 36

months

Staff development possible in medium term-at relatively high expense

#### **Job families**



Exchangeability quickly achievable

< 18 months

- little additional training required

#### **Functions**



months

Directly exchangeable **functions** directly replaceable

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**Mechatronics** 

rainers

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## Flexible simulation of workforce supply scenarios

#### Supply

#### **Illustrative parameters**

#### Retirement

65 years

**Fluctuation** 

 Ø 6.8% per year, derived from historical data by age group and by business unit

Recruiting

none

**Productivity** 

• 3.5% absence rate

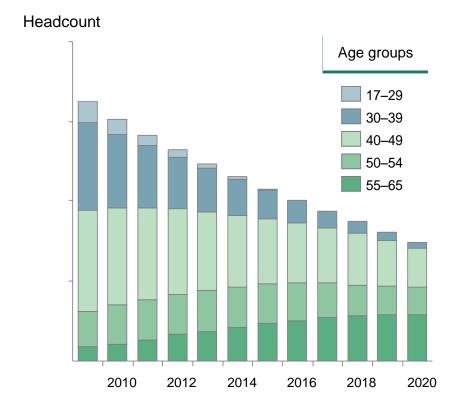
Partial retirement

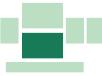
none

Cost

• 7% inflation

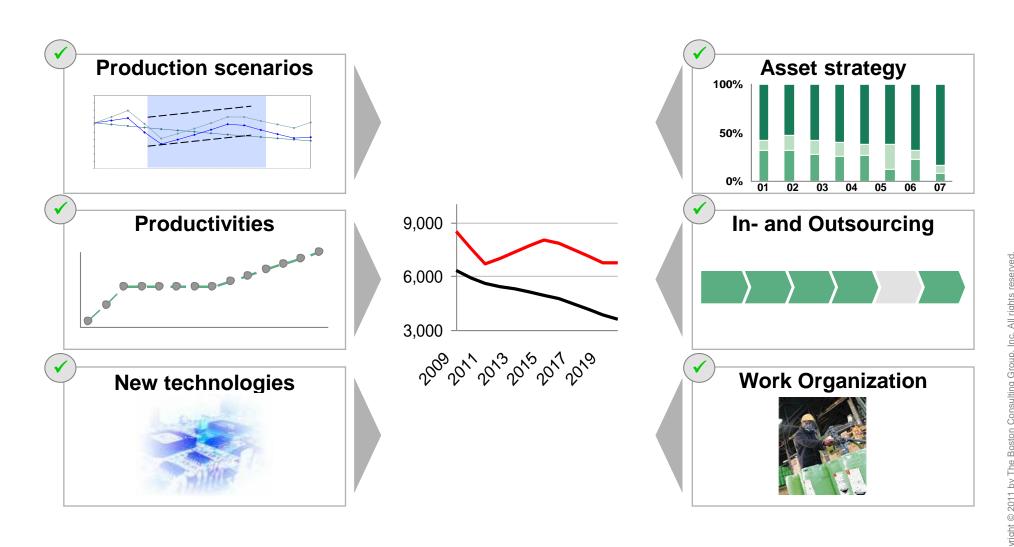
#### **Development of staff levels**





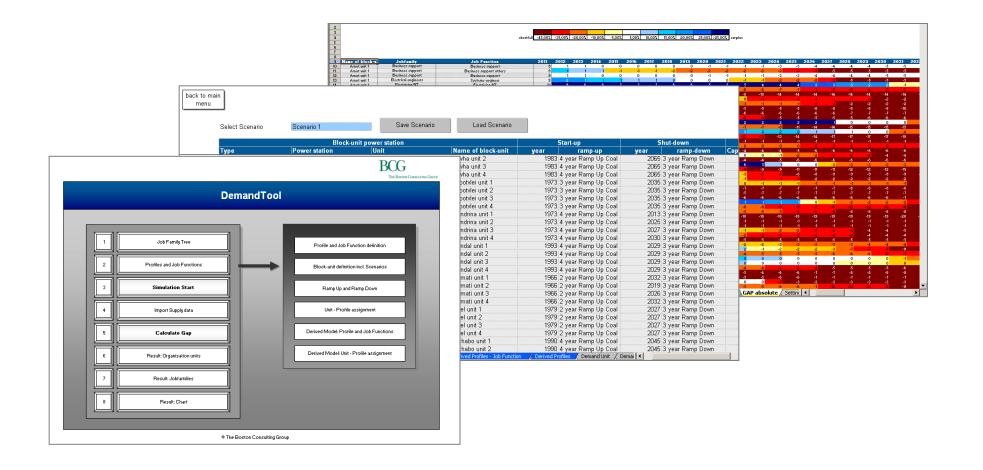
## Approach links business strategy to workforce scenarios

Demand

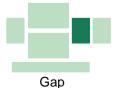




## **Specific simulation model**



Also templates for data requests are ready to use



# **Detailed identification of capacity risks**

10,697

654

Company example

Qualification	WF 09	2009	2010	2011	2012	2013	2014	2015	2016
Skilled tech. worker	242	37	32	-31	-61	-76	-79	-74	-194
Logistic planner	407	34	45	41	-59	-65	-92	-96	-130
Worker mech. eng.	397	58	53	59	46	-112	-156	-216	-204
Commercial clerk	799	104	101	80	-237	-202	-159	-114	-100
Robot expert	286	0	23	20	0	-24	-28	-32	-36
Metalworking mach. op.	190	10	<del>9</del>	Ũ	3	ð	13	ίô	ið
Quality supervisor	581	-136	-124	-127	-113	-123	-123	-145	-185
Technical worker	853	118	120	121	63	41	20	6	-25
Production IT expert	352	66	-102	-98	-94	-140	-126	-119	-112
Machine operator	465	-46	-73	-95	-73	-54	-41	-30	-21
Specialized molder	711	119	110	86	-271	-179	-77	-17	-16
Machine supervisor	574	-57	-55	-53	-219	-381	-440	-414	-664
Development engineer	288	-18	-66	-85	-210	-207	-249	-384	-363
Development techn.	453	49	67	-47	-45	-43	-40	-38	-32
Molding specialist	1,256	135	140	116	83	-22	-111	-193	-297
Mining engineer	771	70	74	21	-131	-124	-144	-145	-145
Assembly technician	1,642	122	220	211	108	115	171	214	225
	430	-13	-13	49	53	-4	-7	-3	-42
Sum FTFs	10 697	654	562	268		Demand vs	. supply (# F	TE, color %)	

Sum FTEs
Source: Project example

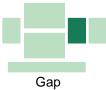
268

**Surplus** 

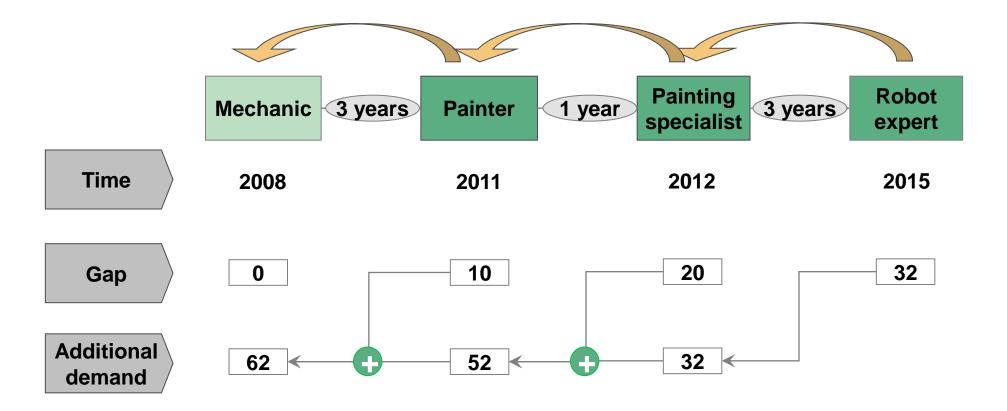
562

**Shortfall** 

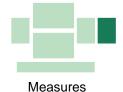
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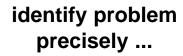


# Closing gaps taking typical career paths into account



# Focused HR initiatives can be launched to address capacity and skill risks





... develop HR initiatives ...

Recruiting/retention

**Training** 

#### ... and detail them

- Recruiting-marketing strategy
- Apprenticeship strategy
- Training strategy
- On-the-job-training concepts
- Employee transfer programs
- Sustainable outsourcing/ insourcing strategies
- Headcount reduction programs
- Capacity flexibilization concepts





Transfer

Out-/insourcing

Reduce

change

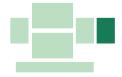
Structural

Capacity reduction

Source: BCG analysis

Strategic Workforce Planning Presentation at HR Club.pptx

# Effective counter-measures can be systematically derived and tracked



Measures

#### **HR** measures

(by order of preference)

#### Impact on capacity risks

Job functions	2008	2009	2010	2011	2012	2013	2014	2015
Skilled technical worker	18%	16%	-12%	-22%	-27%	-29%	-29%	-53%
Logistics planner	9%	13%	12%	-14%	-16%	-22%	-24%	-31%
Worker mechanical eng.	17%	16%	19%	15%	-25%	-33%	-42%	-42%
Commercial clerk	15%	15%	12%	-25%	-23%	-20%	-16%	-15%
Refinishing worker	0%	9%	8%	0%	-9%	-11%	-13%	-15%
Metalworking mach. op.	9%	5%	0%	2%	5%	9%	13%	15%
Quality supervisor	-19%	-18%	-19%	-18%	-20%	-21%	-25%	-31%
Technical worker	16%	17%	18%	9%	6%	3%	1%	-4%
Production IT expert	-23%	-23%	-23%	-23%	-32%	-31%	-31%	-31%
Machine operator	-9%	-14%	-18%	-15%	-12%	-10%	-8%	-6%
Specialized molder	20%	19%	15%	-30%	-23%	-12%	-3%	-3%
Machine supervisor	-9%	-9%	-9%	-30%	-44%	-49%	-49%	-62%
Development engineer	-6%	-19%	-24%	-45%	-46%	-52%	-64%	-64%
Development technician	8%	16%	16%	8%	9%	15%	21%	24%
Molding specialist	12%	13%	11%	8%	-2%	-10%	-17%	-25%
Mining engineer	10%	11%	3%	-16%	-16%	-19%	-20%	-21%
Assembly technician	12%	18%	-10%	-10%	-10%	-10%	-10%	-9%
	-3%	-3%	14%	16%	-1%	-2%	-1%	-12%

HR measures

(by order of preference)

Apprentice-ships

2009 – 11 2012 –15 120 FTE 230 FTE

#### Impact on capacity risks

Jobfunktionen	2008	2009	2010	2011	2012	2013	2014	2015
Techn. Facharbeiter	0%	0%	-10%	-20%	-20%	-10%	0%	12%
_ogistikplaner	12%	12%	-10%	-20%	-20%	-20%	-3%	-3%
Arbeiter Maschinenbau	15%	15%	0%	0%	0%	12%	17%	219
Kaufm. Angestellter	0%	12%	0%	0%	12%	17%	21%	219
Nacharbeiter	0%	10%	0%	0%	12%	15%	21%	219
Maschinist Metallbearb.	0%	12%	0%	0%	0%	0%	12%	129
Qualitätssicherer	0%	12%	0%	0%	0%	0%	17%	179
Techn. Arbeiter	0%	10%	0%	0%	0%	21%	21%	219
T-Experte. Produktion	0%	0%	0%	0%	0%	15%	21%	219
Maschinist	-10%	10%	-3%	-20%	-10%	-3%	12%	109
Former	0%	15%	12%	0%	0%	0%	12%	129
	0%	12%	0%	0%	0%	12%	21%	215
Maschinenführer	0%	12%	0%	0%	0%	0%	15%	179
Entwicklungsingenieur	12%	15%	10%	10%	10%	12%	12%	129
Entwicklungstechniker	0%	0%	0%	0%	0%	0%	12%	0%
Formungsspezialist	17%	15%	0%	0%	12%	10%	17%	159
Bergbauingenieur	0%	0%	0%	0%	0%	0%	0%	129
Monteur	0%	0%	0%	0%	0%	0%	0%	109
	-20%	-10%	-10%	-10%	-20%	-20%	-20%	-20'

Baseline

Development

2009 – 11 2012 –15

350 FTE -

Jobfunktionen	2008	2009	2010	2011	2012	2013	2014	2015
Techn. Facharbeiter	0%	0%	-15%	-20%	-20%	-15%	0%	12%
Logistikplaner	12%	12%	-15%	-20%	-20%	-20%	-3%	-3%
Arbeiter Maschinenbau	9%	9%	-15%	-20%	-20%	-15%	12%	12%
Kaufm. Angestellter	0%	12%	0%	0%	0%	15%	21%	21%
Nacharbeiter	0%	9%	0%	0%	12%	15%	21%	21%
Maschinist Metallbearb.	-15%	12%	-15%	-20%	-20%	-15%	12%	12%
Qualitätssicherer	15%	12%	-40%	-15%	-15%	-3%	15%	15%
Techn. Arbeiter	21%	9%	0%	0%	0%	21%	21%	21%
IT-Experte, Produktion	21%	0%	0%	0%	0%	15%	21%	21%
Maschinist	-15%	9%	-3%	-20%	-15%	-3%	12%	9%
Former	0%	15%	12%	0%	0%	0%	12%	12%
Maschinenführer	-15%	12%	0%	-15%	-15%	12%	21%	21%
Entwicklungsingenieur	-3%	12%	-3%	-20%	-20%	-3%	15%	15%
Entwicklungstechniker	12%	15%	9%	9%	9%	12%	12%	12%
Formungsspezialist	0%	0%	-3%	-15%	0%	0%	12%	0%
Bergbauingenieur	12%	15%	0%	0%	12%	9%	15%	15%
Monteur	-60%	0%	-60%	-60%	-60%	-60%	-46%	-46%
	-60%	-3%	-46%	-60%	-60%	-46%	-60%	-60%

Recruiting

2009 – 11 2012 –15 110 FTE –

Jobfunktionen	2008	2009	2010	2011	2012	2013	2014	2015
Techn. Facharbeiter	0%	0%	0%	0%	0%	0%	0%	12%
Logistikplaner	12%	12%	0%	0%	0%	0%	0%	0%
Arbeiter Maschinenbau	15%	15%	0%	0%	0%	12%	17%	21%
Kaufm. Angestellter	0%	12%	0%	0%	12%	17%	21%	21%
Nacharbeiter	0%	15%	0%	0%	12%	15%	21%	21%
Maschinist Metallbearb	0%	12%	0%	0%	0%	0%	12%	12%
Qualitätssicherer	0%	12%	0%	0%	0%	0%	17%	17%
Techn. Arbeiter	0%	10%	0%	0%	0%	21%	21%	21%
T-Experte, Produktion	0%	0%	0%	0%	0%	15%	21%	21%
Maschinist	0%	10%	0%	0%	0%	0%	12%	10%
Former	0%	15%	12%	0%	0%	0%	12%	12%
Maschinenführer	0%	12%	0%	0%	0%	12%	21%	21%
	0%	12%	0%	0%	0%	0%	15%	17%
Entwicklungsingenieur	12%	15%	10%	10%	10%	12%	12%	12%
Entwicklungstechniker	0%	0%	0%	0%	0%	0%	12%	0%
Formungsspezialist	17%	15%	0%	0%	12%	10%	17%	15%
Bergbauingenieur	0%	0%	0%	0%	0%	0%	0%	12%
Monteur	0%	0%	0%	0%	0%	0%	0%	10%
	0%	0%	0%	0%	0%	0%	0%	0%

External contracting

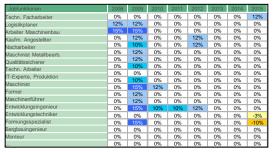
2009 – 11 2012 –15 250 FTE 140 FTE

Jobfunktionen	2008	2009	2010	2011	2012	2013	2014	2015
echn. Facharbeiter	0%	0%	-15%	-20%	-20%	-15%	0%	12%
ogistikplaner	12%	12%	-15%	-20%	-20%	-20%	-3%	-3%
urbeiter Maschinenbau	9%	9%	-3%	-3%	-15%	-15%	12%	12%
Kaufm. Angestellter	0%	12%	0%	0%	0%	15%	21%	21%
lacharbeiter	0%	9%	0%	0%	12%	15%	21%	21%
Maschinist Metallbearb.	0%	12%	0%	0%	0%	0%	12%	12%
Qualitätssicherer	-3%	12%	0%	-3%	-3%	-3%	15%	15%
Techn. Arbeiter	0%	9%	0%	0%	0%	21%	21%	21%
T-Experte, Produktion	0%	0%	0%	0%	0%	15%	21%	21%
Maschinist	-20%	9%	-3%	-20%	-15%	-3%	12%	9%
former	0%	12%	0%	0%	0%	0%	12%	12%
Maschinenführer	0%	12%	0%	0%	0%	12%	21%	21%
ntwicklungsingenieur	0%	12%	0%	0%	0%	0%	15%	15%
Entwicklungstechniker	9%	15%	9%	9%	9%	12%	12%	12%
ormungsspezialist	0%	0%	0%	0%	0%	0%	12%	0%
Bergbauingenieur	12%	15%	0%	0%	12%	9%	15%	15%
Monteur	-3%	0%	-3%	-3%	-3%	-15%	-20%	-46%
	-3%	-3%	-3%	-3%	-3%	-15%	-60%	-60%

**3** 

Lay-offs

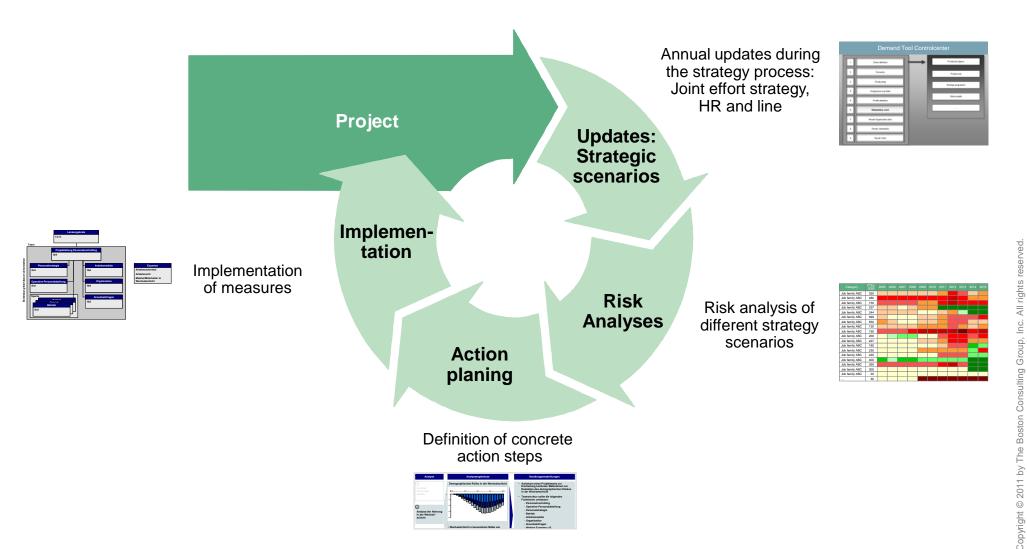
2009 – 11 2012 –15 – 560 FTE



# This is not a one-time exercise but a an enablement of HR into a continuous strategy HR process







# Very positive feedback – project enables the HR organization

Client feedback from BCG strategic workforce planning projects

"Mother of all HR projects!" "We - as HR became actively involved in strategy process" "First step towards becoming an HR business partner " "Results were directly translated in concrete board decisions" "We speak the same language as Finance and Strategy" "We set up an implementation controlling to enforce all measures" "Approach is easy to implement, it is pragmatic and goal oriented" "Best consulting project ever"

## Approach also covered in leading publications

**Example Harvard Business Review** 

#### **Managing Demographic Risk**

An aging workforce will compel businesses to change how they operate and could even threaten some companies' viability. How vulnerable is your business?

by Rainer Strack, Jens Baier, and Anders Fahlander



OST EXECUTIVES IN developed nations are vaguely aware that a major demographic shift is about to transform their societies and their companies – and assume there is little they can do about such a monumental change. They're right in the first instance, wrong in the second.

The statistics are compelling In most developed economies

Sizing Up Your Transfer and Training Options

Sizing Up Your Transfer and Training Options

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