The German and European Machine Vision Market

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Machine Vision Group of VDMA
(German Engineering Association)
The platform of VDMA

- System suppliers / integrators and services that accompany the product
- Representation of the process chain from components to the plant
- 3,000 member companies
- Organized in Industrial Divisions
  - ... 
  - Robotics & Automation
    - Machine Vision
  - ...
- 1,500 events per year with 55,000 visitors per year
- 400 employees
VDMA – Industrial Divisions

- technology
- Air-handling technology
- Building control and management
- Cleaning systems
- Compressors, compressed air and vacuum technology
- Construction equipment and building materials machines
- Equipment for metallurgical plants and rolling mills
- Firefighting equipment
- Fluid power
- Food processing & packaging machinery
- Foundry machinery
- Garment and leather technology
- Industrial communication
- Laundry and drycleaning equipment
- Lifts and escalators
- Machine tools and manufacturing systems
- Materials handling technology
- Micro System Technology

- Mining equipment Plastics and rubbers technology
- Power transmission engineering
- Precision tools
- Prime movers
- Printing & paper equipment and supplies
- Process plant and equipment
- Productronics
- Pumps
- Robotics, Machine Vision & Automation
- Safes and strong rooms
- Software
- Testing technology
- Textile machinery
- Thermo process and waste treatment technology
- Valves
- Weighing technology
- Welding
- Woodworking machinery
Viscom AG – vision technology

- Headquarters in Hannover, Germany
- Founded in 1984
- Four Divisions with app. 200 employees worldwide
  - Industrial Imaging – customer specific applications
  - PCBA Inspection
  - X-Ray Inspection
  - Ceramics and Semicon Inspection
- Operations in Germany, USA, Germany, France, Spain, Singapore, Scandinavia, UK
- Revenues
  - 2000: 20.8 Mio € (app. 18.7 Mio US$)
  - e2001: 23.3 Mio € (app. 21.0 Mio US$)
Sources used

- VDMA

- Viscom AG internal market reports

- Machine Vision and the Capital Market –
  (Research Study by K. Singer)
European ‘Vision’ Countries

Countries of analysis

Mostly:
- Germany

Additionally:
- France
- UK
- Spain
- Belgium
- Netherlands
- Scandinavia (Denmark, Norway, Sweden, Finland)
- Others (excluding Eastern European countries)
Vision Industries in Germany - Structure

- 250+ companies
- 5000+ direct Jobs
- Indirect Jobs in capital goods industries
- Small and medium sized companies
  - 53% < 10 employees
  - 92% < 50 employees
- High skilled personnel
Vision Industries in Germany and Europe – Basic Facts

- Very few European companies over 50 Mio $
- Driven mainly by old economy – mainly privately held
- Focus on
  - Applications
  - Individual software development
- Low hardware development - more projects, less products
- Engineering and research driven business concepts
- Too many government funded developments
- Main developments in government controlled R&D labs
- Limited equity resources
- Low globalization
The German and World Machine Vision Market - 2001

Turnover in billion Euro

- World: 7.0
- North America: 2.3
- Japan: 2.3
- Europe: 1.8
- Germany: 0.7

World Market Volume 20
The German Machine Vision Market
Products and Systems/Services - 2000

66.9%

33.1%
The German Machine Vision Market
Fields of Application - 2000

61.4%

- Quality assurance: 61.4%
- Production automation: 19.4%
- Material flow control: 4.5%
- Machine control: 3.7%
- Non-industrial applications: 11%

European and German Machine Vision Market
The German Machine Vision Customer Branches - 2000

- Electrotechnical/electronics: 20.8%
- Automotive: 17.2%
- Metal works: 8.5%
- Pharmaceuticals: 6.6%
- Plastics: 5.9%
- Transport: 5.9%
- Semiconductor: 5.9%
- Packaging: 5.9%
- Glass/ceramics: 3.5%
- Textile/Clothing: 3.2%
- Printing: 3.1%
- Paper: 3.1%
- Other: 2.0%
- Rest: 4.6%
The German Machine Vision Import Sources 2000

- Europe: 61%
- North America: 19%
- Asia, Japan: 20%

Imports
The German Machine Vision Market Exports - 2000

- **Exports EC**: 21.6%
- **Exports outside EC**: 22.3%
- **Domestic market**: 56.1%
The German Machine Vision Market
The Job Machine

+17 %?
The German Machine Vision Market Volume - 2000

Sales Revenue - Forecast

Year

Sales Revenue [million €]

- 28.4%?
Forecasts – Some Personal Remarks

- Business downturn in spring/summer 2001 was drastic
- Values of 2001 estimations and 2002 forecast are highly dynamic – i.e.
- 9/11 impact on economy in same strength in Germany and Europe
- Business depending on major customers branch, e.g.
  - Automotive suppliers are doing better average
  - Electronic/semicon industries suppliers worse than average
- Recreation of economy in Europe not before 3Q/2002, probably 1Q/2003
Forecasts – Personal Conclusions

- Total growth rate of vision market from market analyst opinions
  - Germany app. 25%
  - Europe app. 20%

- Total growth in sales revenue of 2001 less than published market researches

- Total in Germany app. 12-15%
European and German Machine Vision Market 2002

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