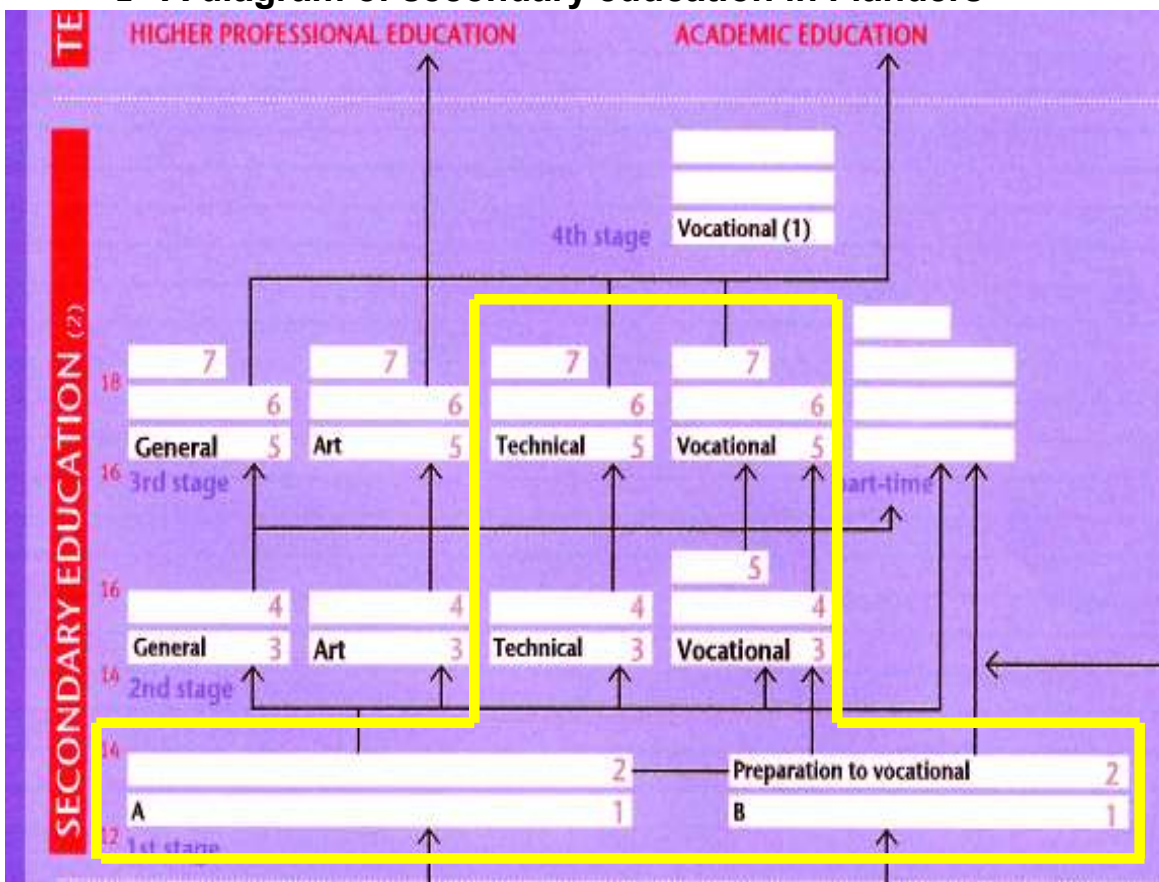




## THE “VRIJ TECHNISCH INSTITUUT”, Catholic Technical College of Waregem



### □ A diagram of secondary education in Flanders



(source: [www.ond.vlaanderen.be](http://www.ond.vlaanderen.be) )

**VTI Waregem is a technical / vocational secondary school with +/- 1390 pupils and +/- 200 teachers and provides education from the 1<sup>st</sup> stage to the 4<sup>th</sup>.**

This means 6 years of (obligatory) secondary school & an optional 7<sup>th</sup> specialisation year. From the second stage on we distinguish:

**Technical education, on a theoretical & practical level**, after which students can pass on to higher professional or academic education;

**Vocational education**, after which they can exercise a technical profession.



## A DESCRIPTION OF THE 3<sup>RD</sup> AND 4<sup>TH</sup> STAGE

### 4 LEVELS OF EDUCATION

1. THEORETICAL TECHNICAL EDUCATION (PREPARING FOR HIGHER EDUCATION) WITH FOCUS ON MATHEMATICS, SCIENCE & TECHNOLOGY
2. THEORETICAL TECHNICAL EDUCATION (PREPARING FOR HIGHER EDUCATION) WITH FOCUS ON TECHNOLOGY
3. PRACTICAL TECHNICAL EDUCATION: THE TECHNIQUES (2 weeks internship)
4. VOCATIONAL TRAINING (LEARNING THE PROFESSION) (2 weeks internship)

### 5 DEPARTMENTS

1

### INDUSTRIAL SCIENCES

THEORETICAL TECHNICAL EDUCATION WITH FOCUS ON MATHEMATICS, SCIENCE & TECHNOLOGY (A MIXTURE OF ELECTRICITY & MECHANICS)

Industrial Sciences prepares for university or technical higher education (e.g. industrial engineering) (**IW**)

## 2

### ELECTRICITY-ELECTRONICS DEPARTMENT

#### THEORETICAL TECHNICAL EDUCATION

- **Electricity-Electronics (EE):** PLC, residential and industrial electricity, consumer electronics and industrial equipment
- **Industrial ICT:** computer science

#### PRACTICAL TECHNICAL EDUCATION

- **Electrical Installation Techniques (EIt):** future electricians for home & industry
- **Electronic Installation Techniques (EOt):** Electronic technician in consumer electronics and industrial equipment

\*7th specialisation year **Audio and Video Techniques (AVt)** and **Control and Security Systems (SBt)**

#### VOCATIONAL TRAINING

- **Electrical Installations (BE)**

\*7th specialisation year: **Industrial Electricity (BE)**

*What you can see in the workshops/laboratories:*

- *Measuring equipment*
- *Security systems*
- *Switch boards, switch boxes*

## 3

### MECHANICS-ELECTROMECHANICS DEPARTMENT

#### THEORETICAL TECHNICAL EDUCATION:

- **Electromechanics (EM):** electrical and mechanical automation processes

#### PRACTICAL TECHNICAL EDUCATION:

- **Mechanical Techniques (Mt),** pneumatics, CAD design, robotics, mechanical machines,
- **Car Techniques (At),** car maintenance, engine repairs, error detection, electrical diagnosis

\* 7th specialisation year: **Computer Controlled Mechanical Production Techniques (MPt)**

#### VOCATIONAL TRAINING:

- **Garage & Coach-work (BA)**
- **Welding / Metal Construction (BL)**
- **Central Heating / Sanitary Installations (BCV)**

\*7th specialisation year: - **Industrial Maintenance (BMO)** and **Diesel and LPG Engines (BMD)**

*What you can see in the workshops:*

- CNC lathes, milling machines, a quality control room
- Engines (diesel, petrol), spray painting

## 4 “Afdeling textiel” TEXTILES DEPARTMENT

**Only 2 branches:**

**PRACTICAL TECHNICAL EDUCATION:**

- **Textile Production Techniques (TPt)**

**VOCATIONAL TRAINING:**

- **Textile Production (BT)**

\* 7th specialisation year: **Textile Machinery (BT)**

*What you can see:*

- 2 workshops with 35 weaving-looms (difference: tissue that is woven on it e.g. carpets; the movement of the shuttle or a projectile; threads)
- CAD designs
- Laboratory research: fibres

## 5 “Afdeling hout & bouw” WOODWORK & BUILDING DEPARTMENT

**THEORETICAL TECHNICAL EDUCATION:**

- **Woodwork & Building Engineering (HBk)**

**PRACTICAL TECHNICAL EDUCATION:**

- **Woodwork Techniques (Ht)**

**VOCATIONAL TRAINING:**

- **Woodwork Skills (BH):** furniture making carpentry, woodwork

\*7th specialisation year: **Interior Design (BH)** (cf. computer class, school offices),

*What you can see in the workshops/labs:*

- Drilling & sawing machines, milling & planing machines, all round machines
- Building, brick laying

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**Our motto: *Your talent, our passion!***

## Our quality management experience

### VTI Waregem has a long tradition in quality assurance systems

**1980's:** the first steps were made in quality techniques

- Brainstorming
- Ishikawa-diagram
- Pareto-analysis
- Quality circles

**1993:** start of the pilot project about the development of **Total Quality Management** under the supervision of the Japanese professor Tsuda.

**The specific aim of the project is increasing student motivation and involvement via self-directed learning (the teacher acts as a coach) and via self-assessment**

At this moment about forty schools in Flanders co-operate in the project with the support of the Ministry of Education

**1996:** **ISO9002** certified

#### **Advantages:**

- Clear agreements by means of proper procedures and documents
- The quality book is a kind of manual for every teacher

#### **Disadvantages:**

- Less attention for the individual processes and for improvement

**2002:** the school obtained the international standard **ISO9001:2000**

**2004:** the management of the school is monitoring her critical success keys by means of a **Balanced Scorecard**

Our success keys are:

- Competence and motivation of the employees
- Communication
- Teaching process
- Coaching the students
- Customer-satisfaction
- Number of students
- Finances

### **2005-2007**

Partner in Leonardo da Vinci pilot project: **Quality Procedure Manual**

<http://project.kahosl.be/qpm/index.html>

### **2007-2009**

Partner in a Leonardo da Vinci Transfer of Innovation project: **Internship to Industry**

<http://www.internship2industry.eu/>

translation: P. Ostyn