

## **Convergence of NACE-ISIC-NAICS Classifications "Project 2007"**

### **Preliminary Orgalime Comments on the NACE revision**

**12 December 2002**

Dear Mr. Langkjaer,

As you know, Orgalime represents the mechanical, electrical, electronic and metal working industries of 21 European countries. Its 32 national member federations represent over 100 000 companies of all sizes. With production valued at 1200 billion euros in 2001, and employing 7.5 million people, the engineering industry is the largest industrial sector. Orgalime's constituency covers some 120 different product sectors. These different industry sectors are often not only represented through the Orgalime network, but also in many cases have set up their own European sector organisations representing either a single type of product (e.g. pumps) or else group of products (e.g. white goods).

Orgalime is therefore pleased to provide EUROSTAT hereafter with its preliminary views on the revision of the European NACE nomenclature and its convergence with the North-American NAICS classification in the light of a future ISIC nomenclature.

ORGALIME supports the idea of a new revised NACE nomenclature for the following reasons:

- Industry and business is always changing with individual companies, product ranges or even whole industrial sectors being created or disappearing under the combined effect of local and global business factors, or of even broader technological and socio-political changes. A new nomenclature should try to reflect what has happened in the EU's economies since the last major revision some ten years ago.
- It is also, in our opinion, important that a new nomenclature should be continuously open to minor adjustments as and when required.
- Convergence of a new NACE with the NAICS is of great importance in order to render data between the EU and the North American industry more comparable.
- Convergence is all the more important due to the fact that businesses have become more international over the last 20 years.
- Finally convergence is also important for analytic, economic policy and data supply reasons.

However, Orgalime is concerned about the drawbacks that such changes may cause:

- The experience gained from the two major revisions of the NACE is not encouraging with regard to comparability of data between the new and old positions. Eurostat, together with National statistical offices, should ensure that long-term time-series are created after the revision of the NACE. This is of great importance since many day-to-day business contracts include indexation provisions (producer prices, labour costs). Any break in time-series could heavily affect or distort comparability and thereby cause difficulties in interpreting business contracts.
- The cost of the recoding or renumbering of business registers could be very high.

We consider the convergence scenario as a good working basis. For the mechanical engineering (industry for machinery and equipment NACE 29), it is very similar to the current structure of ISIC and NACE. For the electro-technical and electronics industries (NACE 30,31,32 parts of 33) it resembles to a large extent the structure of the NAICS.

We stress that our initial views, as expressed in this position, may evolve as the different individual product sectors provide their views. We are also looking forward to participating actively in the later stages of the process, when some arbitration will be required in order to refine the aggregation of the NACE codes on 3 and 2 digits levels.

We remain at your disposal to provide you with any further explanations you may require on the present position: the details we provide hereafter focus on the mechanical and electrical sectors. We shall provide comments on the metalworking sector at a later stage.

Yours sincerely,

Adrian Harris

*[no signature: sent by [electronic means](#)]*

Enclosure: preliminary proposals

## Convergence Project 2007 – Preliminary proposals of Orgalime

### 1) Mechanical engineering Industry

As far as mechanical engineering is concerned, one can mostly agree with the proposals made by the working group on the convergence between NACE and NAICS. We would however like to comment separately on the following points:

- **F4.2** It is not reasonable to move hydrostatic drives, transmissions, ball and roller bearings out of this section. All products of this section including hydrostatic drives and transmissions, and ball and roller bearings are components of a particular product or parts of a complex technical component. Therefore all the products of Section F4.2 fall under the same end-use category and all manufacturers dealing with products in the field of mechanical power transmission should be kept together under one section within mechanical engineering.
- For the engine sub sector, there is still a need for a clear distinction between engines for road motor vehicles (motorcars, trucks, motorcycles) on the one hand, and engines for stationary use on the other hand. We recommend that engines for motor vehicles be considered as part of the motorcar industry.
- **F4.6** Arms, ordinance and ammunition should be hived off mechanical engineering and be put up as a separate section under miscellaneous industry (F7). Arms or defence equipment are not a true investment goods industry from a business point of view. Decisions to invest or buy arms or defence equipment are based on political considerations and not on business considerations. Keeping arms, defence or ammunition in the investment goods industry disturbs the business analysis.
- A division should be set up for taps and valves in F4.4 (now in NACE 2913). Taps and valves are appliances with their own mechanical function and are therefore part of mechanical engineering.
- Precision Tools should be part of section F5.3. Alternatively there should be a distinct delimitation for this section under F1.
- Machines for manufacturing of micro systems come within sector F4.7; Due to their variety, systems themselves should form their own category sector (quasi F9). Only in such a sector the different micro-system solutions can be encoded adequately.

The **first column** of the table below shows the Convergence scenario.

In the **second column** we have named reference to the positions of NACE Rev.1.1 (“ex.” means, that only parts of the position is integrated in our proposal).

In the **third column** we listed the sub-sectors, which are meant for the revision.

The **fourth column** gives an outlook of the economic weight, i.e. the EU production in billion of euros in 2001.

Convergence scenario	content, according to NACE Rev. 1.1	Sub sectors	Production figures EU 2001, in Mrd. € (old content of NACE Rev. 1.1)
<b>F 4</b>			
<b>General Purpose Machinery</b>			
<b>F 4.1</b>			
<b>Ventilating, Heating and Cooling</b>			
like 29.23			34
<b>F 4.2</b>			
<b>Engines and Power Transmission Equipment</b>			
29.11	Power Systems	17	
- engines for on road motor vehicles (motorcars, goods vehicles, motorcycles) - engines for stationary use, mobile machines, ships, railroad vehicles; wind energy technology			
29.14	Power Transmission Equipment	23	
<b>F 4.3</b>			
<b>Lawn and Garden Equipment and Power Tools</b>			
like 29.41, ex 29.3			29.3 ~ 22
lawn and garden			
including : spray guns, pneumatic, lawn and garden tractors, rototillers (small walking tractor cultivators) hand plows and similar lawn and garden equipment, lawn mowers			
electric power tools			
- for industrial purpose			
- for other purpose			
others			

Convergence scenario	content, according to NACE Rev. 1.1	Sub sectors	Production figures EU 2001, in Mrd. € (old content of NACE Rev. 1.1)
		<p><b>F 4.4</b> <b>Pumps and Compressors</b></p> <p>like 29.12</p> <p>Fluid Power Equipment Compressors Vacuum technology Compressed air technology Liquid Pumps others</p> <p><b>F 4.5</b> <b>Material Handling Equipment (incl. Elevators and escalators)</b></p> <p>like 29.22</p> <p>Elevators and escalators Mechanical handling equipment</p> <p><b>F 4.6</b> <b>Taps and Valves</b></p> <p>like 29.13</p> <p><b>F 4.7</b> <b>Other General Purpose Machinery</b></p> <p>like 29.24, 29.21</p> <p>Packaging and beverage filling machinery Welding Handling Technology Process equipment; Industrial furnaces and burners Testing technology and Weighing machines others</p>	<p>27</p> <p>43</p> <p>21</p> <p>-</p>

Convergence scenario	content, according to NACE Rev. 1.1	Sub sectors	Production figures EU 2001, in Mrd. € (old content of NACE Rev. 1.1)
<b>F 5</b>			
<b>Special Purpose Machinery</b>			
<b>F 5.1</b>			
<b>Agriculture (and Forestry) Machinery</b>			
like 29.3 except lawn and garden			22
<b>F 5.2</b>			
<b>Construction and Mining Machinery</b>			
like 29.52			25
<p><b>Construction equipment</b> including: manufacture of concrete and mortar mixers, manufacture of earth-moving machinery: bulldozers, angle-dozers, graders, scrapers, levellers, mechanical shovels, shovel loaders, etc. ,manufacture of pile-drivers and pile-extractors, mortar spreaders, bitumen spreaders, concrete surfacing machinery, etc.</p>			
<p><b>Mining machinery</b> including: manufacture of continuous-action elevators and conveyors for underground manufacture of cutting, sinking and tunnelling machinery</p>			
<b>F 5.3</b>			
<b>Metal Working Machinery</b>			
29.42 Machine Tools			
<p>ex 29.51 Foundry machinery including: machinery and plants for conditioning and regenerating moulding machines, moulding machines, core making machines, pouring equipment, casting machines, fettling machinery and equipment, patterns and pattern making</p>			
<p>ex 29.51 Machinery for metallurgical plants and rolling mills including: smelting plants for non-ferrous metals, iron and steel works equipment, blast furnaces, forging machinery and plant, rolling mill machinery and equipment, turnkey industrial plants</p>			
<p><b>Precision Tools</b> including: precision tools (manufacture of interchangeable tools for hand tools, whether or not power operated, or for machine tools: drills, punches, dies, milling cutters), measuring instruments for dimensional gauging, tool monitoring systems, chucking tools for various materials</p>			

Convergence scenario	content, according to NACE Rev. 1.1	Sub sectors	Production figures EU 2001, in Mrd. € (old content of NACE Rev. 1.1)
<b>F 5.4</b>		<b>Special Industry Machinery</b>	
		29.53 Food-processing machinery	12
		ex 29.54 Textile machinery; Garment and Leather machinery	14
		29.55 Paper technology	7
		ex 29.56 Printing technology	
		29.43 Woodworking machinery	
		ex 29.56 Machinery for plastics and rubber	
		ex 29.52 Building material machines (manufacture of machinery for treating minerals by screening, sorting, separating, etc.)	
		Productronic (like NAICS 333295 Semiconductor Machinery Manufacturing); Machinery for micro systems	
		others	

## 2) Electro-technical and Electronic Industry

In order to both better reflect technological changes in the structure of our industry in the new ISIC/NACE-Nomenclature, especially with regard to the introduction of services (e.g. softwares), and to achieve at the same time a greater convergence with the North-American NAICS 2002, Orgalime proposes the following changes in the table below.

The **first column** of the table shows the NAICS classification, on which our proposal is based, with more details than proposed by Orgalime for the new nomenclature.

*Only positions that are preceded with a cross (x) are meant as ISIC/NACE positions.* The others merely describe their content in greater detail.

- The first line is a summary for the “Electro-technical and Electronics Industry”, which should be shown as an aggregate.
- From other chapters we took those parts, which logically belong to the Electro-technical and Electronic Industry as “Motor Vehicle Electrical and Electronic Equipment Manufacturing”, “Electrical Power-Driven Hand tool Manufacturing”, “Electrical Arc and Resistance Welding Machine Manufacturing“ and “Electrical Industrial Process Furnace Oven Manufacturing”.
- We believe it very important to integrate **positions for software and services** at the end of both chapters.
- In some cases we propose some adjustments to improve the scope of our industry.

In the **second column** we name the belonging numbers of the NAICS 2002, but they are not always of four digits.

- “ex.” means, that only parts of the position is integrated in our proposal.

In the **third column** we tried to name the corresponding NACE Positions.

Besides Orgalime would like to stress the need for a comparable statistical framework for the services industry, matching the one that encompasses equipment in our industry; this means that similar positions need to be working out.

		<b>NAICS 2002</b>	<b>NACE 2002</b>
<b>X</b>	<b>Electro-technical and Electronics Industry</b>	<b>new</b>	
<b>X</b>	<b>Electronic Products and Information and Communication Technology</b>	<b>334</b>	
<b>X</b>	- Computer & Peripheral Equipment Manufacturing	3341	3002
	- - Electronic Computer Manufacturing	334111	
	- - Computer Storage Device Manufacturing	334112	
	- - Computer Terminal Manufacturing	334113	
	- - Other Computer Peripheral Equipment Manufacturing	334119	
<b>X</b>	- Communications Equipment Manufacturing	3342	3220 ex.3162 ex.3230
	- - Telephone Apparatus Manufacturing	33421	
	- - Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	33422	
	- - Other Communications Equipment Manufacturing	33429	
<b>X</b>	- Audio & Video Equipment Manufacturing	3343	ex.3230
<b>X</b>	- Electronic Component Manufacturing	3344	ex.3110 3210
	- - Active Electronic Component Manufacturing		
	- - - Electronic Tube Manufacturing	334411	
	- - - Semiconductor and Related Device Manufacturing	334413	
	- - Passive Electronic Component Manufacturing		
	- - - Electronic Capacitor Manufacturing	334414	
	- - - Electronic Resistor Manufacturing	334415	
	- - - Electronic Coil, Transformer, and Other Inductor Manufacturing	334416	

		<b>NAICS 2002</b>	<b>NACE 2002</b>
	- - Electromechanical Component Manufacturing		
	- - - Electronic Connector Manufacturing	334417	
	- - - Other Electronic Component Manufacturing	334419	
	- - Bare Printed Circuit Board Manufacturing	334412	
	- - Printed Circuit Assembly (Electronic Assembly) Manufacturing	334418	
	- - Microsystem Manufacturing		
<b>X</b>	- Electromedical & Electrotherapeutic Equipment Manufacturing	334510 ex.334517	3310.1
<b>X</b>	- Electrotechnical and Electronic Navigational, Measuring & Control Instrument Manufacturing	ex.334511- 334519	3320.1
	- - Search, Detection, Navigation, Guidance, Aeronautical, and Nautic System Manufacturing	334511	
	- - Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	334512	
	- - Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	334513	
	- - Totalizing Fluid Meter and Counting Device Manufacturing	334514	
	- - Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	334515	
	- - Analytical Laboratory Instrument Manufacturing	334516	
	- - Irradiation Apparatus Manufacturing	ex.334517	
	- - Electrical Watch, Clock, and Part Manufacturing	ex.3345183	
	- - Other Measuring and Controlling Device Manufacturing	334519	
<b>X</b>	- Manufacturing and Reproducing Magnetic & Optical Media	3346	ex.2214 ex.2231 ex.2232 ex.2233
	- - Software Reproducing	334611	

		<b>NAICS 2002</b>	<b>NACE 2002</b>
	- - Prerecording Compact Disc (except Software), Tape, a. Record Reprod.	334612	
	- - Magnetic and Optical Recording Media Manufacturing	334613	
<b>X</b>	- Software and Services for NAICS 334		
<b>X</b>	<b>Electrical Equipment, Appliance (incl. Component) Manufacturing</b>	<b>335</b>	
<b>X</b>	- Electric Lighting Equipment Manufacturing	3351	3150
	- - Electric Lamp Bulb and Part Manufacturing	33511	
	- - Lighting Fixture Manufacturing	33512	
<b>X</b>	- Household Appliance Manufacturing	3352	2971 ex.2923 ex.2924 ex.2954 ex.2956
	- - Small Electrical Appliance Manufacturing	33521	
	- - Major Appliance Manufacturing	33522	
<b>X</b>	- Power, Distribution, and Specialty Transformer Manufacturing	335311	ex.3110
<b>X</b>	- Motor and Generator Manufacturing	335312	ex.3110
<b>X</b>	- Switchgear and Switchboard Apparatus, Relays Manufacturing above 1,000 volts	3353131	ex.3120
<b>X</b>	- Switchgear and Switchboard Apparatus, Relays Manufacturing 1,000 volts and under	3353133 3353135 3353137	ex.3120
<b>X</b>	- Industrial Control Manufacturing	335314	ex.3120
<b>X</b>	- Motor Vehicle Electrical and Electronic Equipment Manufacturing	33632	3161 ex. 3430

		<b>NAICS 2002</b>	<b>NACE 2002</b>
<b>X</b>	- Battery Manufacturing	33591	3140
	- - Storage Battery Manufacturing	335911	
	- - Primary Battery Manufacturing	335912	
<b>X</b>	- Communication and Energy Wire and Cable Manufacturing	33592	3130
	- - Fiber Optic Cable Manufacturing	335921	
	- - Other Communication and Energy Wire Manufacturing	335929	
<b>X</b>	- Wiring Device Manufacturing	33593	ex.3120
	- - Current-Carrying Wiring Device Manufacturing	335931	
	- - Noncurrent-Carrying Wiring Device Manufacturing	335932	
<b>X</b>	- Electrical Power-Driven Handtool Manufacturing	ex.333991	ex.2941
<b>X</b>	- Electrical Arc and Resistance Welding Machine Manufacturing	ex.333992	ex.2943
<b>X</b>	- Electrical Industrial Process Furnace & Oven Manufacturing	ex.333994	ex.2921
<b>X</b>	- All Other Electrical Equipment and Component Manufacturing	33599	ex.2524
			ex.2615
			ex.2923
			ex.3162
			ex.3210
	- - Carbon and Graphite Product Manufacturing	335991	.
	- - All Other Miscellaneous Electrical Equipment and Component Manufacturing	335999	.
<b>X</b>	- Software and Services for NAICS 335		