SOCIAL ACTION, INNOVATION, REFLECTION AND EXCHANGE LABORATORY]

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"Anticipation and Participatory Change Management in Companies during a Period of Crisis and Technological Change"

THE THYSSENKRUPP GROUP

(by Michel Fried)

In its current configuration, the Thyssenkrupp[1] group is the result of the merger of Krupp with the other two major German steelmaking companies, Hoesch, acquired in 1991, to keep it from falling into the hands of British Steel, and Thyssen in 1999. The group thus constituted is today Europe's number two steel producer (13 million tonnes), but only 19th worldwide, very far behind its two main European competitors, Arcelor Mittal, number 1 in the world with nearly 100 million tonnes, and Tata Steel, number 11 with 26 million tonnes of steel.

Thyssenkrupp is organised into 6 business units:

- "Steel Europe" and "Steel Americas" produce in particular flat carbon steel for the automobile industry; the "Stainless global" business unit, which produced stainless steel, has been sold ;
- "Elevator technology" makes elevators and related products, such as escalators, boarding bridges for aircraft, etc., and sees to the maintenance of its equipment ;
- "Component technology" provides components, particularly for the automobile industry but also for chemistry ;
- "Industrial solutions" groups the engineering activities provided by the automobile industry, chemistry, mines and shipbuilding ;
- "Material services" comprises the material distribution activities (metals and plastics in particular) and services, particularly logistics.

[1] Unless indicated otherwise, the figures in this note come from the annual accounts closed in September of the referenced financial year.

TABLE 1

DEVELOPMENT IN THE NUMBER OF EMPLOYEES PER BUSINESS UNIT

(in thousands)	2009	2010	2012	2014	2015	2016
Group including:	187.50	177.35	167.96	162.37	154.91	156.49
Component technology	27.97	29.14	28.01	28.94	29.63	30.75
Elevator technology	42.70	44.0	47.56	50.28	51.34	51.43
Industrial Technology	20.81	18.77	18.11	18.55	19.39	19.60
Material services	44.32	33.86	27.60	30.29	20.23	19.75
Steel Europe	36.42	34.71	27.76	27.86	27.60	27.56
Steel Americas*	1.66	3.32	3.99	3.47	3.73	3.85
Stainless Global	11.76	11.24	11.85	-	-	-
Corporate	1.87	2.60	2.80	2.99	3.00	3.55

*United States, Canada, Mexico, Brazil

Steel, which has played a historical role in the development and culture of the group, is nonetheless no longer its main activity. The two steel business units employed only 20% of its workforce in September 2014, largely exceeded by the elevators division (33% of the workforce).

It is worth noting that the group's activities and most of the business units are strongly geared to intermediate groups and the automobile industry. The composition of the Thyssenkrupp clientele has remained remarkably stable in recent years, in spite of the scope of the restructuring operations carried out during the same period.

TABLE 2

STRUCTURE (IN %) OF SALES PER CUSTOMER SECTOR

Customer sectors	2011	2016
Automobile	24	25
Engineering	11	8
Steel	18	14
Packaging	3	3
Energy and "utilities"	3	5
Construction	10	11
Public sector	4	5
Trade	14	12
Other	12	17
Total	100	100

Conversely, the group’s sites in each region have changed considerably, with the Asia-Pacific region ascending in terms of both absolute and relative value :

TABLE 3

WORKFORCE PER REGION

	2009		2013		2015	
	Number*	%	Number*	%	Number*	%
Germany	81.23	43.3	58.16	37.4	59.81	38.6
Europe, excl. Gr	42.29	22.6	29.92	19.1	30.41	19.6
NAFTA	27.43	14.6	20.56	13.1	21.42	13.8
South America	15.46	8.2	22.08	14.1	13.53	8.7
Asia-Pacific	18.48	9.9	24.91	15.9	28.34	18.3
Africa	2.60	1.4	1.22	0.8	1.39	0.9
Total	187.50	100	156.86	100	154.91	100

*number in thousands

Overall, Thyssenkrupp reduced its workforce by 17.4% (32,600 people) between 2009 and 2015. Most of this reduction has concentrated on Germany and the rest of Europe, where the workforce has been reduced by 26.4% (21,400 people) and 28.1% (11,900 people) respectively; the workforce of the Asia-Pacific region, essentially India and China, has gone up by 9,900 people, which offsets about one third of the drop in European employment.

MANAGEMENT OF THE GROUP

The management of the group as well as the shifts in its activity portfolio are guided by three criteria which are calculated and published for the year to come for each business unit; they pertain to earning before interest and taxes (EBIT), value creation[2] and the generated liquidity (measured by the free cash-flow (net cash-flow after investments)). These criteria seem to have different roles at this time: as rightly pointed out in the group’s publications, operating profitability is not a very good performance indicator when it comes to comparing the results of different capital-intensive activities; it should be noted that the created value has been systematically negative these last years, with the average cost of capital having always exceeded the return on capital employed. It is therefore likely that in the tense financial context that the group finds itself, the free cash-flow may well be the most crucial management indicator to guide its decisions. Nevertheless, the short-term objectives set for each business unit prioritise these criteria and define more specific ones; conversely, the amount of the variable remuneration of the board of management, which is far higher than their fixed remuneration, depends on these four ratios according to a specific grid for each.

[2] Value creation is a key concept of classical financial theory because it is deemed to be the performance indicator most widely used to guide the investor’s decision. It is defined as the difference between EBIT and the weighted average cost of capital (debt and equity); the cost of the debt is the sum of the interest of a risk-free debt (in general the sovereign debt) plus a risk premium, and the return required by the shareholders is the return from a perfectly diversified stock portfolio, plus a risk premium corresponding to the specific company risk. The cost of capital defined for each business unit of the group varies only slightly from one year to the next: in 2015, it was fixed at 9%, a rate that had not changed since September 2012, higher by 0.5 point from the rate of previous years, reduced to 8% in 2016. The rate of the best business unit, Elevator Technology, is 7.5%, and that of the business unit most at risk, Steel Americas, is 10%. The average cost of capital for the entire group, which therefore appears as relatively high, reflects a high future return requirement from the shareholders and/or their observation of a level of risk for the group’s activities which would remain sizeable, higher than that which the group seems willing to admit.

TABLE 4

DEVELOPMENT OF THE GROUP'S KEY MANAGEMENT INDICATORS

(€ million or %)	2010	2011	2012	2013	2014	2015	2016
Net turnover (€ billion)	42.62	49.09	47.05	39.78	41.21	42.78	39.26
EBIT (€ billion)	1346	-988	-4370	-552	1145	1050	1189
Capital employed (€ billion)	20.77	23.22	21.49	14.59	15.85	16.11	15.93
ROCE*(%)	6.5	-4.3	-20.3	-3.8	7.2	6.5	7.5
Average cost of capital (%)	8.5	8.5	8.5	9.0	9.0	9.0	8.0
Val. created/destroyed	-419	-2962	-6197	-1865	-282	-389	-85
(€mil.)	-1538	-1995	-2590	-625	-3577	65	
Free cash-flow**(€ mil.)	553	424	854	1221	1054	597	191
Cash-flow from	12.31	9.54	8.51	9.10	11.75	8.87	12.01
investments							
Market capitalisation (€ bil.)							

*Return on capital employed **Free cash-flow before investment proceeds[3]

The management system of Thyssenkrupp is therefore strongly characterised by the quest for profitability for its shareholders, the parameters of which stem from three constraints: the composition of its shareholding, the deterioration of its profitability, and the scope of unfortunate investments.

The shareholding of the group is highly dispersed and comprises only two significant shareholders :

- The Alfried Krupp von Bohlen und Halbach Foundation, which comprises the stake of the founding families, though a minority shareholder, seems to play an important role in the management choices of the group. This power is based on its position as the group's principal shareholder -- a position it had to agree to reduce so as to be able to accept the sizeable increases of capital that reduced its stake[4]: This stake, which stood at 25.3% of the capital in 2012, dropped to 23% in 2014. Moreover, the foundation's weight was reduced in 2011 by the disposal of 9.84% internally held shares on the market to strengthen the cash position of the group (€1.6 billion) ;
- In December 2013, the family holding company, which was not able to participate in the increase of capital of €880 million due to the deterioration of the group's financial situation, was forced to accept the entry into the capital of Cevlan, a Swedish activist fund.[5] Since its arrival, the stake of the fund has gone, through several stages, from 5.3% to 20% of the capital, i.e. nearly the same level as the foundation. Cevlan has had a seat on the group's supervisory board since January 2015[6] ;

[3] The free cash-flow represents the surplus liquidity generated by the company's activity, after the financing of its investments, and the variation of its working capital requirement (variation of stocks and net trade credits). This available cash-flow can be used by the company to increase its equity or pay its debts.
[4] In January 2014, the management board was authorised, in agreement with the supervisory board, to issue convertible bonds, on condition of not exceeding a ceiling of €500 million, while the management board was granted the right to limit subscriptions it did not consider suitable.
[5] Cevlan capital was created in 2002. It holds a diversified portfolio of shares in European companies, which it changes rapidly, because it keeps its stake for 5 to 7 years. It has a reputation of pleading, in companies in which it is present, for a rapid restructuring through the disposal of loss-making activities. According to the press, Cevlan defends the idea of a sale of Thyssenkrupp's steelmaking activity and a demerger of the lift activity (a spin off?).
[6] It should be noted that the Commerzbank holds a 2.49%stake in the capital of Thyssenkrupp.

The profitability situation of the group, which explains the low dividends at the present time (cf. Table 5 below), is due to three factors :

- *The crisis of the Eurozone of 2008-2009 which* caused the collapse of the group's turnover. In 2010, the turnover dropped by 21.7% compared to its 2008 level, with sales taking the hardest hit in Germany (-27%) and in the rest of Europe (-25%), which could not be offset by the weak progress in the Asia-Pacific Region (+3%) ;
- *The failure of the new steel plants created in Brazil and the United States* amplified the difficulties of the group even further, all the more so as it was late in becoming aware of the problem, due to insufficient reporting from the managers of the Brazilian plant which, according to employee representatives, was because the management of the group has difficulties accepting the failure of its decisions.[7] Be that as it may, investment in the two plants, which had been evaluated at €6 billion in 2006, had to be revised upward to €8 billion in 2008, and then €12 billion in 2013 ;
- *The collapse of steel prices* caused by Chinese exports at dumping prices is weighing on the group's financial recovery at the end of the period.

TABLE 5

DEVELOPMENT OF THE GROUP'S FINANCIAL SITUATION

(September data)	2008	2009	2010	2011	2012	2013	2014	2015	2016
Net result (€ billion)	2.28	-	0.93	-1.78	-5.04	-1.58	0.20	0.27	0.26
Investments (€ billion)	4.28	1.87	3.52	2.77	2.20	1.41	1.20	1.24	1.39
Dividends (€ million)	603	4.08	209	232	-	-	62	85	85
ROE* (%)	27.6	139	10.9	-15.2	-112	-65.6	13.4	14.7	25.0
Equity (€ billion)	11.49	24.4	10.38	10.38	4.53	2.51	3.20	3.3 1	2.61
Net financial debt	1.58	9.70	3.78	3.55	5.80	5.04	3.68	3.42	3.50
Equity ratio** (%)	27.6	2.06	23.8	23.8	11.8	7.1	8.8	9.3	7.4
Gearing***(%)	13.8	23.4 21.2	36.4	34.5	128.1	200.6	114.9	103.2	134.2

*Return on equity ** Equity/balance sheet total ***net financial debt / equity

Even though they have not really imperilled the cash position of Thyssenkrupp, in spite of the externalisation of a constantly negative cash-flow since the crisis (Table 4), these three shocks have, owing to the sharp deterioration of profitability, caused a collapse in equity which has gone from €11.5 billion in 2008 to 2.5 billion in 2013, a level scarcely exceeded in 2016, which cancels an improvement noted in 2014-2015. As we have seen, owing to its shareholding structure, the group was not able to raise capital to offset its losses, and had to resort to regular bond issues and bank debt, but within limits defined strictly by the banks, which are worried about the group's future.[8] It should be noted that the cost of the debt paid

[7] Die Zeit on line of 5 July 2012 provides a powerful description of the Brazilian adventure of Thyssenkrupp as a "story of megalomania, bad management and pollution," and as the final attempt of the German group to reposition itself as a major steel group capable of vying with its two main European competitors, Arcelor Mittal and Tata Steel.

[8] The group's bank lines of credit are subject to a covenant that limits the group's gearing to 150%. In 2013, when the gearing reached 200%, Thyssenkrupp had to renegotiate its line of credit of €2.5 billion in return for getting the gearing back to a level acceptable by the bankers. At the same time, the group's rating was downgraded, which did not prevent Thyssenkrupp from issuing bonds (€1.25 billion in February 2014 and €1.35 billion in February 2015) , but prevented it from benefiting fully from the drop of interest rates, in particular because of the drop of its rating and the uncertainty about its financial recovery. It is worth noting that in February 2016, Moody's lowered the group's long term rating to Ba2, with stable prospects, based on the development of steel prices and the Brazilian recession. The ratings by Standard and Poor's and Fitch remained unchanged at BB and BB+ respectively. The sizeable increase of the gearing noted in 2016 is essentially due to the reassessment of the group's pension commitments (in particular as regards German employees) owing to the drop in the actuarial rate used to calculate them.

by the group remains acceptable for a company with a "non-investment grade"[9] rating. The group's restructuring operations therefore have every chance of being continued in the coming years, as shown by the persistent differences between the most and the least efficient business units[10] :

PROFIT MARGIN PER BUSINESS UNIT

	2014	2015	2016
Group	2.8	2.5	3.0
of which:			
Component technology	3.8	4.4	3.7
Elevator technology	7.5	9.2	10.3
Industrial technology	6.7	6.8	5.8
Material services	O.7	-0.3	0.6
Steel Europe	2.2	5.9	4.1
Steel Americas	-3.1	-8.3	-1.5

The recovery of the group: an unchanged strategy but based, since 2011, on restructuring decisions and significant disposals of activity.

The losses registered in 2011 and 2012 by Thyssenkrupp have not changed its main strategic lines, namely to :

- Build a diversified group in terms of its activities and geographic sites (in particular in Asia and South America) ;
- Obtain more productions that are more technical and more specified according to the particular needs of major customers ;
- Disengage from the more capital-intensive activities and shift to service and engineering activities in particular.

The group pointed out in its annual report of 2015 that "diversification was not an objective in itself, but a means to seize growth opportunities and boost the stability of [its] activity in a volatile environment." This strategy explains that the group disengaged from its activities for carmakers in developing countries (see below) and invested in the same customer sectors in emerging countries.[11] These strategic approaches, intended to enable it to achieve higher and more stable profitability more rapidly, require maintaining a sizeable level of investment and research and development, which was not possible during the period under review.[12] To turn its situation around, Thyssenkrupp set more rigorous profitability requirements for its business unit, by adding to its traditional management criteria the objective of coming systematically up to the level of its most efficient competitors (benchmarking) and reinforcing the synergies between the group's business units, thereby strengthening the centralised nature of its management.[13]

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[9] In 2014, Thyssenkrupp launched successfully a 5-year bond issue at 3.12%, in 2015 at 1.76% and in 2016 at 2.75%.

[10] The composition of the business units having been extensively changed during the period under review as have the definitions of accounting concepts, albeit to a lesser degree, it is not possible to produce a coherent record of the profit margins over a long period. As noted above, the return on capital employed is conceptually a better indicator than the profit margin, but its interpretation has been complicated by the sudden changes of policies pursued by certain divisions concerning stocks and trade credits.

[11] In 2015, it was decided to create three plants in China for the production of springs and stabilisers (Chengdu), chassis (Shanghai) and cylinders (Changzhou), a plant of cylinders in Brazil and a plant of axles in Mexico for Volkswagen.

[12] The group's investment capacities were more than saturated until 2012 by the weight of investments in the Brazilian and American steel plants.

[13] The group's business units report directly to the group's general management, the support functions (accounts, real estate, and human resources in particular) are only partially carried out by the divisions, and are largely centralised. Moreover, the

In May 2011, a rigorous plan to dispose of activities deemed insufficiently profitable and savings to be carried out on the activities has been adopted. Christened “Impact,” this plan has to reduce the group’s turnover by 23% and its workforce by 35,500 by comparison with 2010 over a relatively short period of five years, and to impose drastic savings on the activities retained pertaining to the costs and capital employed. According to the group’s accounting figures, the turnover and employment objectives set in 2011 were not reached, but the savings target was not only reached but also exceeded (€1 billion in 2015 for a target of €850 million). In fact, the disposal[14] and restructuring operations of the group pertained particularly to reducing the capital employed (cf. Table 4) which in two years, from 2011 to 2013, dropped suddenly from 37%, i.e. nearly €9 billion, obtained by taking action on the components of that capital, fixed assets and circulating capital.

As of 2011, the group posted the new asset disposals it was planning, which supplemented the disposals already programmed. In spite of the scope of these operations, it refused to sell off its assets, preferring to keep them, and even to invest to modernise and hope for a subsequent disposal. The most important disposals were as follows :

- Metal forming (car components, 5700 employees), sold in July 2011 (outside the Impact plan) to Gestamp Automocion ;
- Xervon (scaffolding, insulation, 9300 people) sold in August 2011 (outside the impact plan) to the German company Remondis ;
- Blom+Voss (components and maintenance of vessels) (1600 employees), sold in part in 2011 to the Star Capital fund, which resold them subsequently to the German company Lurssen, which continues the specialisation in the naval sector for military activities (construction of surface vessels and non-nuclear submarines and world leader of the Kingspan sector) ;
- Sale in 2013 of Thyssenkrupp Construction Group, which was loss making (European number 1 in insulating sandwich panels) ;
- Sale in July 2014 of the group’s Swedish shipyards for submarines to the Saab Group and German yards in Emden to Seafort Advisors[15] ;
- Automotive System, a Brazilian subsidiary of the Bilstein Group, sold in December 2011 to Cosma International ;
- Waupaca (foundry in the United States, 3000 people) sold in July 2012 to KPS Partners
- Tailored Blanks (tailored blanks in steel for the automobile industry, 900 persons), sold in September 2012 to WISCO (Wuhan Iron and Steel Corp.) ;
- Berco group (Italy, chassis and undercarriages for construction site machinery) put up for sale in September 2014 ;
- Announcement in September 2014 of the restructuring (outside of the Impact plan) of the Angers elevator plant (France) leading to 258 job cuts out of a workforce of 442 employees; Angers must lose a part of its activity (fine sheet metal) to refocus on

group recently created search functions for synergies concerning the research and development activities or geographic sites of each business unit.

[14] In essence, the disposal objectives were set before 2014 as shown by the accounting standards (IFRS) which since 2013 require the company to report separately the turnover and result of the activities pursued and activities abandoned during the financial year. Since 2014, the data concerning the activities pursued are practically identical to those of the group, which tends to show that the disposals of the group now tend to be programmed according to opportunities.

[15] The sale of the Swedish shipyards is not in line with the specialisation objective of the ship building activity for the military sector. This sale was carried out under pressure from the Swedish government which reproached Thyssenkrupp of reserving its contracts of sale for submarines for its German shipyards, to the detriment of Swedish shipyards (Kochum) acquired in 2005. The French company DCNS (12000 employees) is a candidate for a merger with Thyssenkrupp Marine Systems (8300 employees), unsuccessfully so far, but a merger with the German shipbuilding yard Urssen has been mentioned. On the export front, TKMS holds 60% of the world market for submarines and 25% for surface vessels.

engineering, follow-up of orders and the after-sales service concerning France and Belgium[16] ;

- The sale of the French company THK Hugo (magnetic sheet plant at Isbergues, 550 employees) had been considered since January 2013 due to the keen Chinese competition on medium-range products, speciality of THK UGO. The disposal could not go through because of lack of buyer, and in January 2015, an agreement to continue the activity was signed with the trade unions (see below), accompanied by an investment programme of €4.5 million intended to improve the production and a drop in the price of semi-finished products supplied by the group to the French company. It should be noted that Thyssenkrupp has two other magnetic sheet plants, one in Germany (580 employees) and the other in India (500 employees).

The restructuring operations for three business units did not go exactly as planned in 2011 :

- Stainless Global, stainless steel business unit, rechristened Inoxium, valued at €2.7 billion in 2012, was ceded to the Finnish company Outokumpu in exchange for a 29.9% stake of the Finnish company in Thyssenkrupp. The Finnish company now holds more than 50% of the European stainless steel market. Nevertheless, owing to the dominant position thus acquired by Outokumpu, in 2014, the European competition authority asked it to dispose of two companies ceded by ThyssenKrupp, VDM (2083 employees) and the Italian company ASF (Accial Speciali Terni). Because of a lack of buyer, the latter must take back its two former subsidiaries and, in order to comply with the European decisions, must break all contact with Outokumpu. VDM was resold in April 2015 to the British fund Lindsay Goldberg , and ASF - Acciai Speciali Terni- (1500 employees) remains in the lap of ThyssenKrupp, with the production of stainless metal strips being concentrated in the Italian plants of Terni (2600 employees), where 20% of the jobs will have to go[17] ;
- Steel Americas: The disposals in this business unit did not go according to plan either. Only the American steel subsidiary TK Alabama could be sold for €1.3 billion in February 2014 to a consortium that comprised Arcelor Mittal and Nippon Steel Sumimoto Corp. Thyssenkrupp had to retain its Brazilian plant CSA –Companhia Siderurgica doo Atlantico- and in 2016, acquired for €1 the 26.7% stake of the capital held by Vale. It is worth bearing in mind that the two plants were still estimated at €3.9 billion in Thyssenkrupp's accounts in 2012, compared with a final investment of €12 billion, including €4.9 billion for the Brazilian plant… Nevertheless, the contract of sale with its former American subsidiary TK Alabama limited the unfavourable consequences of retaining the Brazilian plant. The latter had initially been designed especially to supply the American plant with semi-finished products (slabs). The consortium had undertaken to acquire temporarily, until 2019, 40% of the tonnage produced by the Brazilian plant (5 million tonnes). CSA thus acquired a certain visibility for the short term which will perhaps enable Thyssenkrupp to find a buyer for it (negotiations are currently under way, according to the Wall Street Journal) ;
- Steel Europe: The Impact plan had provided in 2011 to reduce the business unit's production capacities by 1.4 million tonnes by the programmed closing of the Krefeld steel works at the end of 2013 and Bochum in 2016 (the 600 redundant positions

[16] The Thyssenkrupp elevator business unit (world's number 4 producer), although highly profitable, is in search of a business plan that would improve its European results even more. Thus in 2006, it had planned to restructure production by having each plant specialise in one elevator element. In 2010, a new plan was devised which concentrates the production activity at the German site of Neuhausen and in 2014, a new business plan (ENMR project) provides for production in three plants. It is a project which seems to have inspired the restructuring of the Angers plant which sees a part of its activities transferred to the German plant of Neuhausen and another part to the Spanish plant of Mostolen.

[17] In September 2014, Pope Francis sharply condemned the social policy of Thyssenkrupp concerning this company.

having to be reclassified in the group) as well as Swedish cold rolling activities. In 2013, the group stepped up the pressure on Steel Europe under a new programme known as "Best in class reloaded"[18] which provided for the improvement of the technical efficiency of the existing hot rolling mills and the relocation of the cold installations of Duisburg… In all, the new programme sets an objective to reduce the business unit's production capacity by 3 million tonnes and to cut 1800 jobs, which brings the number of jobs that have to be done away with to 3800, i.e. 14% of the business unit's workforce.

A FRAGMENTED SOCIAL MANAGEMENT OF THE RESTRUCTURING OPERATIONS ?

The social management of Thyssenkrupp could not be examined from an exhaustive inquiry into the negotiations and agreements covering the entire group, because of lack of sufficient information. Nevertheless, a certain number of recent conflicts and agreements, which are presented below, set out contrasting situations according to the geographic sites of the entities concerned, revealing a tension between the unified and centralised management of a multinational group and the social negotiation bodies, the scope of which is limited by the legal powers of the restructured subsidiaries. In fact, the organisation of the group provided for four decision-making bodies: the group itself (supervisory board and management board), the business units, the geographic managers, and finally the subsidiaries apply the decisions of the three preceding bodies.

- *Emerging countries* constitute the only case, as far as we know, of a world social negotiation carried out at group level, freed from the legal (and geographical) boundaries of the subsidiary. The denunciation by certain NGOs of the social conditions imposed on certain plants of the group located in emerging countries, in particular Brazil and Peru, have probably facilitated the opening of negotiations that define the social minima at world level, but concerning de facto only emerging countries. In March 2015, Thyssenkrupp signed a world agreement in particular with IG Metall, the Hans Böckler Foundation and IndustriALL[19] concerning the respect of the social rights of workers in 80 countries where the group is established. These rights must respect the minimum standards defined by the International Labour Organisation and the UN conventions. The agreement provided for the creation of a joint international committee that must be kept informed of complaints concerning the application of the agreement, and granted its members the right to go and inquire on site. It should be noted nonetheless that even in Europe, the working conditions deteriorated profoundly locally in the periods preceding a restructuring or disposal, as was the case of the steel plant in Turin, where an agreement to close it had been signed with the trade unions in July 2007[20] ;
- *In Germany, in 2008, an agreement to maintain senior citizens in employment* was signed, first on a regional basis (Rhineland Westphalia), then extended to the national level. The purpose of this agreement was to improve the working conditions according

[18] IG Metall reproached the management of Thyssenkrupp for having announced this plan through the press even before it was presented to the supervisory board and to employee representatives. Nevertheless, this plan ended up being accompanied by an agreement that defined the social arrangements (cf. below).

[19] Created in June 2012 and headquartered in Geneva, IndustriALL Global Union brings together the world trade union federations of the metallurgy, mining, chemistry, energy and textile/clothing sectors.

[20] In December 2007, an explosion in the Turin steel plant, where the workforce had been reduced by 380 workers to 270, claimed 7 fatalities and caused great distress in Italy. The documents seized by the Italian judicial authorities showed that the safety standards were no longer complied with at that plant, the closing of which was a condition of survival for another steel plant of the group, that in Termi (3500 employees). The judicial authorities considered that the management errors were of exceptional severity, and consequently, sentenced the general manager of THK Italy to 16.5 years in prison for culpable homicide, and 5 other executives for manslaughter. The sentences were upheld in appeal.

to age and lead to a gradual reduction of the activity of old workers so as to promote the rejuvenation of the workforce. To that end, a special fund was created to finance actions for senior citizens, fed by contributions from the company and the employees. Each company of the group is thereby required to conduct a 5-year projection on the qualification needs and to define the measures to be put in place ;

- *In the German steel industry,* where restructuring operations have resulted in a substantial reduction of employment, agreements were signed to reduce redundancies in exchange for reductions in wages and working time. Nevertheless, the social climate was less easy than would first appear from the large spans of these agreements. IG Metal noted and denounced that the general management of the group could announce publicly restructuring decisions before consulting the supervisory board and the trade unions. It should also be noted that these agreements caused an unusual erosion in the number of elected representatives of IG Metall (during the elections of March 2015, it lost 4 of the 26 seats out of the 30 it held).

In connection with the plan to restructure the German steel industry announced in 2013, in September of that year IG Metall signed a collective agreement[21] on the procedures for 1300 redundancies over 5 years, which provides :

- For employees covered by the collective agreement, the reduction of the working time from 34 to 31 hours as of October 2013, then a gradual return to 35 hours as of October 2018 to be attained by 2021 ;
- For employees not covered by collective agreements, their wages will be reduced by 2.44% and their holidays by 8 days ;
- Partial early retirement schemes for a period of 6 years and part-time contracts will be implemented and expenses relating to internal mobility will be assumed by the company ;
- The apprenticeship contracts will no longer lead systematically to hiring in the group.

In Europe, outside Germany, negotiations were apparently more difficult than in Germany, and at times managed to mobilise the governments and elected officials, even the Pope (cf. note 17).

- Thus, in Italy, as we have seen, the activity of the two blast furnaces of AST in Terni, which were to be closed (as announced in October 2014), was finally saved, after the intervention of the Italian government, and their level of production was maintained for four years, particularly through the transfer of the steelmaking activity in Turin to Terni. On this basis, an agreement signed in December 2014, reduces the workforce by 290 persons, with departures of employees carried out strictly on a voluntary basis. The Terni plants will be modernised at the price of an investment of €110 million. Nevertheless, a 40-day conflict, mobilising CGIL, CISL and UIL, erupted concerning subcontracting, deemed to be treated particularly badly, especially when compared to the practices of the group in Germany ;
- *In France,* two significant conflicts have taken place, one driven by the CGT and the other by the CFDT: - The first conflict concerns the elevator plant in Angers. It mobilised the local public authorities and was raised in the Chamber of Deputies. The CGT denounced the ill will of the Thyssenkrupp subsidiary to discuss the restructuring of the elevator business unit, refusing to provide the accounting firm Secari,

[21] The content of this agreement was communicated to us by Syndex.

commissioned by the works council, with the necessary information[22], then to put the report of that firm on the agenda. The services of the ministry of labour intervened to break the impasse in the negotiations and to reach an agreement which was approved on 5 March 2015. This agreement guarantees that the jobs preserved will be kept for at least 3 years, and that the subsidiary of Thyssenkrupp will inject €1 million in the Angers basin revitalisation fund ;

- The second conflict concerns the plant in Isbergues (Nord Pas de Calais), managed by THK UGO, the disposal or closing of which had been announced since January 2013. The negotiations led to a defensive agreement to maintain employment for 3 years. Signed in September 2015, this agreement pitted strongly the CFD, which was favourable to it, against the CGT, which was very hostile. The conflict between the two trade unions was settled by a referendum among the workers, who came out in favour (thanks to the support of the managerial staff, 90% of whom voted for the agreement). In return for maintaining employment, working time was reduced by 10 to 16 days depending on the categories of employees, while the weekly working time was increased from 32 to 35 hours, or from 35 to 37.5 hours. Depending again on the category of employees, these additional hours will be paid, which will offset the abolition of the 13th month of pay. It is worth noting that out of the group's three magnetic sheet production sites, the workforce was reduced from 500 to 350 employees at the Indian site, while on the German site (580 employees), IG Metall signed, a few months before the French agreement, a defensive agreement similar to that of the French site: an increase in working time from 35 to 39 hours, and the abolition of 50% of the 13th month.

THE RESTRUCTURING WAVE DOES NOT SEEM TO BE OVER

The Impact restructuring plan was completed in 2016 -- successfully, according to the Group, which underscored that savings had amounted to €1 billion in 2016, thereby exceeding the fixed target of €850 million. Thus, in May 2016 the Krupp Foundation announced that it would give the group free rein to restructure, for the long-term, even if it meant getting out of steel making. Heinrich Heisinger, the group's CEO, then confirmed at a press conference that "to state that it would be possible to continue in the next five to six years without reductions of activities, would not be telling the truth". The group has moreover set a medium-term objective for its operating profit of €3 billion, which represents a nearly 30% increase from the level attained in 2016. The group's steel and engineering activities seem particularly concerned by the restructuring operations to come.

The main uncertainties have to do with the *future of the steel activities.* In April 2016, IG Metall expressed its concern by organising a national action day entitled "Steel is the future" which brought together 45000 employees,[23] 16000 in front of the main Thyssenkrupp site. In May 2016, Thyssenkrupp announced a reorganisation of its steel and engineering industrial sites: the steel activities will be divided into two entities, with steel production upstream, and steel processing activities, whose future seems less certain, downstream. The Group admitted that it was considering a restructuring of steelmaking at European level, which "made absolute sense," and that it was in discussions with Tata Steel (11000 people in Europe after

[22] The argument of the Angers subsidiary was geared to its forecast that, if a restructuring was not carried out, the accumulated loss from 2013 to 2013 would amount to €20 million. For their part, the employee representatives disclosed the need to modernise the equipment, the computer problems and the refusal of the group to boost production in Angers, which explains the 26% drop in turnover in 6 years.

[23] The German steel industry employs 85,000 people. This movement challenged in particular the lack of a real response to the dumping prices of Chinese steel exports.

the sale of its long steel products in November 2016 to the British fund Greybull Capital[24]) -- 500 jobs in the United Kingdom and 9000 in the Netherlands.[25] Nevertheless, the discussions would hit a snag on the resorption of the imbalance of the retirement system of the British employees of Tata Steel and on the uncertainties relating to Brexit. For his part, the chairman of the Thyssenkrupp works council, Günter Back, considered that a rapprochement with Tata Steel did not address a need of the Thyssen group[26] and that the group's management board had not dealt with the substance of this issue. He considered that the group no longer respects its tradition of consultation with employee representatives, and seems only to imply that site closures and redundancies are foreseeable, whereas agreements currently in force preclude them until 2020.

The "Industrial Solution" division, which carries out the *engineering activities*, is going to put in place a plan christened "Planets" to bolster its growth and profitability by giving preference to its more profitable sectors and by integrating better the Marine Systems business unit, whose manager had been dismissed after the failure of the sale of submarines to Australia. The chairman of this division pointed out that he wanted the share of the most profitable service activities, which stand at 13% at present, to about 1/3, without fixing a timetable, by redeploying the workforce, which is too concentrated in Germany, abroad, in order to move closer to its customers. The employee representatives are consulted on these projects and on the possible job cuts.

Even the "Elevators" business unit, the most profitable of the group, will have to improve its profitability: its profit margin will have to go from 11% in 2015 to 15% by 2020, by reducing the number of its models and developing its service activities in emerging countries.[27]

[24] The activities acquired by Greybull, a fund specialised in the takeover of companies in difficulties, were rechristened British Steel, the name of the former British steel group. This fund thus acquired one of the two major British steel sites, that of Scunthorpe; the second, Port Talbot, with a huge deficit, is still held by Tata Steel, and has been put up for sale; the third major European steel site of Tata Steel, Hoogovens, which is highly profitable, is situated in the Netherlands and had been acquired by the British company Corus, itself a result of the merger of British Steel and Hoogovens; the Indian Group Tata rechristened Corus to Tata Steel after its takeover.

[25] In November 2016, Tata Steel announced that it was on the point of disposing of its "special steels" activities in the United Kingdom (1700 people) and that it was in exclusive negotiations on the matter with Liberty Group. It should be noted that this segment of activity is strongly geared to the automobile industry, like Thyssenkrupp.

[26] He declared to the DPA agency: "We are one of the best in Europe. Why should we go in with someone of a lower level?"

[27] The dissolution of the elevator cartel in 2013 may have made the sector more competitive. This cartel grouped the four major world manufacturers: OTIS, Schindler, Krone and Thyssenkrupp; they were convicted in 2007 for an arrangement which lasted at least from 1995 to 2004, and the fines were upheld by the European Court of Justice in 2013. The fine for the German Group was €480 million.