

Industrial relations for a green economy

Innovative bargaining processes for a sustainable growth and a quality employment



Project VS/2014/0405 co-founded

by

DGESAI - DG EMPLOYMENT, SOCIAL AFFAIRS and INCLUSION

CASE ITALY Arvedi

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PRESENTATION (IDENTITY CARD OF BEST PRACTICE)

- **Name of initiative/project/intervention/agreement**

Case-study of Arvedi S.p.A, Steel production, doubling of factory space, innovative production, participatory process.

Participatory process that has resulted in the factory doubling in size and the use of environmentally sustainable technologies with international patents in the Cremona factory in Lombardy.

- **Short description**

The situation of steel production in Italy is a unique one. Traditional factories are going through a severe crisis and are being criticised for their impact on the environment and the health of residents and workers (Taranto, Piombino). The case of Arvedi is particularly significant because it demonstrates that, despite the limitations, a different and environmentally sustainable way of producing steel in Italy is possible. The case-study refers in general to the steel production technologies (secondary steelmaking, without blast furnace), and specifically to the participatory process and to the autonomous and central role of the trade-union in the authorisation and approval (institutional and non-institutional) process of doubling the size of the production plant at Cremona. The factory features extremely innovative technology and very high levels of environmental protection. The trade union's role has been one of commitment to acting as a link and communicating with the residents, the healthcare authorities and some of the resident committees and environmentalists.

- **Geographical, territorial and sectoral location**

Municipalities of Cremona and Spinesco (Lombardy, Italy).

- **Period of activity**

From 2005 to date (Factory was commissioned in 2010).

- **Players/organisers**

The project organiser is the company management with the support of the unitary union representative bodies (RSU) and the local trade unions.

- **Players/partners involved and their main roles**

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Giuseppe Sbaruffati, Cremona CISL – Union representative for the issues involved in doubling the size of the factory.

Mario Caldonazzo, Managing Director Arvedi S.p.A.

Giorgio Luzzari, Arvedi S.p.A. Protection and Prevention Service Manager

Alessandra Barocci, Arvedi S.p.A. Environmental Consultant

▪ **Types of beneficiaries (direct/indirect)**

A total of 1400 people are employed at the two factories in Cremona.

The new factory has hired 680 people (on permanent contracts after a trial period of one year).

▪ **Human resources and their competencies**

▪ **Indicators for monitoring and evaluating activities**

The environmental monitoring at the Arvedi factories involves monitoring the air, ground water, surface water, waste, radioactivity and noise, as well as biomonitoring of the flora and fauna in the surrounding woodland.

Summary

▪ **Starting-point of the initiative/project/intervention as related to the local context (social, economic, political, etc.)**

The Arvedi group was founded in 1963 by Giovanni Arvedi (still at the helm of the company today). Arvedi built a secondary fusion steelworks in Cremona (the raw material is not the mineral as in the steelworks at Taranto and Piombino, but scrap sourced in Italy and abroad).

The factory produces hot laminated steel coils, carbon steel tubes, relaminated stainless steel, and other steel products. The company built two adjacent factories in Cremona in 1994 and between 2008 and 2010, and has other factories in Italy.

Current production is 3 million tons of coils a year (maximum capacity is 4 million tons).

▪ **Description of the socio-economic and territorial context in which the initiative is based**

The two factories are located adjacent to each other in the province of Cremona, but in two different municipalities: Cremona and the small town of Spinadesco. In the latter municipality there were difficulties due to opposition from local residents and the authorities to doubling the size of the factory.

The factories cover an area of 690,175 m² of which 162,000 m² are grass and woodland (147,705 m² of 'filter' woodland).

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- **Is it possible to describe the ‘philosophy’ inspiring best practice?**

At the end of the 1980s the company developed a project for a major innovation in steelmaking. This new technology is called ISP (In-line Strip Production), and was then patented by the Arvedi group in the major industrial countries with the aim of building a technically and economically efficient casting and lamination plant, including of small dimensions for flat products in fine coils of a high quality. Using this technology it was possible to develop a new plant for the manufacture of quality flat products with a much more compact layout, which is efficient, manageable, flexible, ergonomic and environmentally compatible due to its smaller dimensions and especially its significantly lower energy consumption.

In 2009 construction of the new plant began, based on the Arvedi ESP (Endless Strip Production) technology. This was a direct development of the previous ISP technology with a fundamental innovation: a continuous casting and lamination process. The best practice lies in the production methodologies, involvement of the workers and the gradual process of acceptance by the public of the doubling in size of the factory (using the ESP process) with an active and central role of the trade union and workers’ representatives in providing information about the production conditions and environmental impact.

- **What problems/general needs is the intervention trying to address? What specific needs?**

From the trade-union point of view: frank and open relations with Arvedi. The trade union was unequivocally enthusiastic in its support for the investment in doubling the production of the steelworks. The trade union was in full agreement with the decision to double the size of the Cremona factory. Several stages were jointly managed, including an additional company/trade-union procedure on additional safety regulations for the construction of the new plant, also for contractors and sub-contractors. The trade union’s interest was in the positive effects on job creation as well as the added value of the technology innovation in the province of Cremona. With regard to the environmental issues, the trade union fought for the investment also in discussions with a local committee that was vigorously opposing investment in the steelworks in very strong terms and was conducting a disinformation campaign involving the media. The trade union, workers’ representatives (over 50% of the company’s employees are trade-union members, and this applies also to young people newly hired) and the company worked together with respect for their reciprocal roles on an information campaign that would explain the environmental and employment-related conditions underlying the investment. All of which took place after a number of meetings with the company management to discuss the environmental and manufacturing issues. The data provided by the company was checked by the trade union and the public bodies (ARPA and AUSL) responsible for the permanent monitoring of emissions. The metalworkers’ trade unions organised a trade union meeting at the Sports Centre which was very well attended, involving residents, families, medical authorities and monitoring bodies. The public meeting played a crucial role in affecting public opinion about the factory development.

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680 people were hired in a period of crisis. The role of the autonomous, independent trade union has a significance, particularly when taking into consideration the history of industrial relations in the company and the results of a positive dialogue consolidated over the decades.

- **What goals/objectives is the intervention aiming to achieve?**

Acceptance of the investment by public opinion.

Permanent monitoring and control of the environmental and health and safety conditions.

Simplification and shortening of the production cycle.

Energy saving and reduction of the environmental impact.

Reduction in capital investment and running costs.

High quality production and new product types.

Flexible production.

- **What activities/tools make up the initiative?**

The Arvedi group developed the two different production technologies that are absolutely innovative patented technologies in the production of secondary steelmaking (described above). The first technology is ISP (In-line Strip Production), based on extremely compact steel casting, and the second, more recent technology is ESP (Endless Strip Production), developed for the second factory. The installed power and fully continuous cycle allows reduction both of the footprint and energy consumption. The objectives are to increase productivity, cut costs and reduce the overall environmental impact. The patent is for the continuous passage of molten steel through the lamination process. As we have mentioned, there is no heating furnace in ESP, which is a considerable advance in terms of the environmental emissions.

- **How can the actions implemented increase knowledge and problem-solving tools?**

Knowledge of the technology model and its applications in the steelmaking sector.

Role of the trade union in the process of doubling the size of the plant and relations with residents and environmental associations.

Company/trade-union procedure for monitoring emissions and health and safety inside and outside the plant.

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- **What are the most innovative aspects of the initiative in terms of its local context, and why?**

One particularly important aspect was the creation of an Arvedi observatory by the Municipality of Cremona when the first plant was built in the 1990s.

When the second, disputed production plant was proposed, the observatory was reinforced.

The observatory involves all the municipalities affected, the provincial government of Cremona, all the political parties, the company, trade-union representatives, environmental associations and local committees.

The observatory has played an important role in overcoming a series of disputes (including some appeals to the administrative courts) by the committees, particularly with regard to the construction of the second plant.

There has been a gradual improvement in relations between the players involved, and active cooperation between them, particularly in order to mitigate the objective environmental issues relating to noise pollution (effects that were most noticeable outside the factory).

In addition, the environmental footprint for every ton of steel produced in the plants is measured with considerable attention being paid to social responsibility towards the local area.

The company's initiative to measure the plant's environmental footprint is an interesting one.

- **What are the 'internal quality factors' of the initiative (sustainability, internal effectiveness, efficiency)?**

Independent environmental monitoring (air, ground water, surface water, waste, radioactivity, noise and biomonitoring).

Moreover, the residues (landfills) are the property of the company (an anti-economic choice, but a necessary one in order to have total control over the chain of waste).

Monitoring of people's state of health, 2012-2013 survey of the health of all the company's employees carried out with the collaboration of two leading healthcare institutions in Cremona.

- **Can the initiative be reproduced in other contexts?**

It is important to distinguish between the part relating to industrial relations and joint consultation at the local level and the part relating to technological innovation in order to be able to answer the question as to whether the best practice can be transferred/reproduced. Certainly in terms of industrial relations and the trade union's role in the debate with institutions, resident committees, environmental associations the initiative can be transferred to similar contexts and reproduced in different contexts. However, the prior history of industrial relations and the trade union's role are extremely relevant.

As far as technological innovation is concerned, it is certainly an interesting example along with the issue of corporate social responsibility in the local area.

However, it should be emphasised that the specific production systems have been patented by the Arvedi company and therefore are only consistent with the company's presence in other production contexts.

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- **List the initiative output (e.g. website, documents, brochures, etc.).**

Website: www.arvedi.it

Trade-union leaflets and documents

Brochures produced by the company

Slides and documents of the independent environmental monitoring authorities.

- **Conclusions**

Despite its exemplary and exceptionally positive environmental impact and trade-union and local relations there are some critical issues that should be listed in the conclusion.

The Arvedi case is also linked to the charismatic figure of its founder and owner Giovanni Arvedi.

There are uncertainties about how the company will be passed on to the next generation.

Another issue is the global crisis that has also affected steel production, so the new plant is not working to capacity, also due to some dumping practises implemented by other manufacturers less sensitive to environmental issues and the quality of the production chain.

Finally, there is the objective problem of noise pollution, which is particularly noticeable outside the plant and still needs to be definitively resolved, as do the health and safety conditions in the company where, despite the extremely high quality of the standards adopted, there are still situations in which it has not been possible to achieve full compliance (viz. the mortal accident in the steelworks in spring 2014).