



## “Arbeit und Innovation”: a learning path to the future of work

### Face to face with Kathrin Schaefers

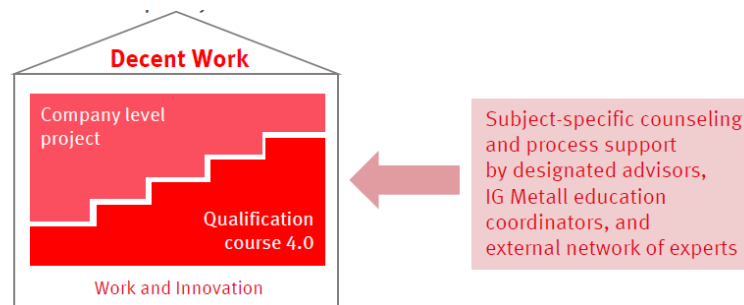
For eighteen months, from January 2018 to July 2019, the [Smart Unions for New Industry \(SUNI\) project](#), co-financed by the European Commission and carried out by an international consortium of workers' organisations and research institutes (including ADAPT), has investigated the role of trade unions in shaping digitalisation in Europe. As shown in [this infographic](#), all analysed trade union organisations (FIM-CISL in Italy, IF Metall in Sweden, IG Metall in Germany and UGT-FICA in Spain) share a similar approach to digitalisation, which is rather proactive and intended to anticipate and manage the upcoming transformation. However, the practices they perform in their respective institutional contexts are quite diverse and can be ascribed to at least four “shades” of union involvement in Industry 4.0: initiatives related to a logic of *membership* (e.g. trade union alliances, internal training, research) and meant to influence or empower trade union members and officials; actions linked to a logic of *influence* (e.g. lobbying, external communication campaigns, etc.) and intended to put pressure on external players; collective bargaining practices serving to perform trade unions' traditional regulatory function in the age of digital transformation; and multi-stakeholder innovation projects, where trade unions play a key role.

Whereas raising awareness and training programmes for the leadership and rank-and-file as well as collective agreements over the main labour implications of digitalisation are quite widespread among all countries involved, joint labour-management innovation projects are particularly developed in Sweden and Germany, where they are not performed occasionally but largely integrated in comprehensive institutional programmes. Two examples in this regard are represented by “Arbeit 2020” [*Work 2020*], initiated in 2015 in North Rhine-Westphalia by the regional structures of IG Metall, IGBCE (a German trade union in mining, chemical and energy industries) and NGG (a German union in food, beverage and catering industry) and “Arbeit und Innovation” [*Work and Innovation*], implemented by IG Metall from February 2016 to July 2019 and co-financed by the Federal Ministry of Labour and Social Affairs and the European Social Fund. Though having a different sectoral and territorial coverage, they are both intended to enable worker representatives to cope with digital transformation, while assisting them, via the support of both trade union and external experts, in experimental projects at workplace level. While “Arbeit 2020” has been the subject of [the interview](#) conducted in August 2018 with Patrick Loos (IG Metall North Rhine-Westphalia), in the following lines I will deepen the experience of “Arbeit und Innovation” through the words of Kathrin Schaefers from the secretarial body of IG Metall.

*Hi Kathrin, could you briefly describe “Arbeit und Innovation”? What were its main goals and fundamental steps?*

“Arbeit und Innovation” started in 2016 with the aim of empowering worker representatives and internal company experts to deal with digital transformation and its possible upheavals in workplaces. It was a praxis-oriented learning process, whereby a well-structured training programme was developed in tandem with and as a function of company-specific innovation

projects, whose implementation was ensured and supported via the involvement of IG Metall officials and external advisors. As a result, “Arbeit und Innovation” consisted of two interrelated parts: a qualification programme articulated in different modules; and the implementation of and support for company-level innovation projects accompanied by subject-specific counselling.



*Well, it sounds very interesting! Could you please detail the two parts of “Arbeit und Innovation”? What was the content of each training module? What were the objectives of company-level innovation projects?*

As regards the qualification part, a training course was organised and addressed to worker representatives and internal experts from selected companies. It was structured in five different three-day modules: “Innovation” (looking at useful innovation concepts and the role of worker representatives in innovation processes), “Participation and co-determination” (aiming at providing project management skills and competences on how to make sure workforce participates in and shapes the innovation process), “Technological change” (concentrating on the main characteristics of digital transformation), “Proactive process design” (intended to equip participants with the skills to analyse and develop work processes in digital contexts, and make them sensually experience the consequences of technological changes and develop design alternatives) and “Sustainability” (centred on the possibilities of long-term development of company-specific innovation projects). With the sole exception of the “Proactive process design” module, taking place in the Learning Factory at the Ruhr University of Bochum (a learning environment where processes and technologies are based on real industrial sites, enabling a direct approach on technological and organisational industry-related issues), every module was held at IG Metall training centres. Among all modules, the one held at the Learning Factory in Bochum was particularly important as it was developed in collaboration with the Chair of Production System and the Office of cooperation between the Ruhr University of Bochum and IG Metall: permanent partners in “Arbeit und Innovation”. The didactic approach underlying the module was based on repeated evaluation cycles. This means that participants were confronted with different implementation manners of new technologies (i.e. digital assistance systems), which they had to evaluate; in so doing, they developed different interpretations on the chances and risks potentially raised by these applications. The learning factory environment offered participants the opportunity not only to test digital tools but also to adjust technological systems and therefore acknowledge that they can produce different effects on employees. Later, participants were taught how to engage in digital process design at company level, by making use of legislative provisions (i.e. the Works Constitution Act) and company agreements<sup>1</sup>.

The analytical skills gained in these training modules were intended to serve also the implementation of company-level innovation projects, supported and assisted by IG Metall coordinators and a network of external and labour-oriented advisors throughout the course of

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<sup>1</sup> Further information can be found in M. Reuter et al. (2017), “Learning factories’ trainings as an enabler of proactive workers’ participation regarding Industrie 4.0”, in *Procedia Manufacturing*, Vol. 9, pp. 354-60.

“Arbeit und Innovation”. However, it is worth mentioning that the projects’ objectives were diverse across the companies involved, tackling many issues such as work organisation and working time, digital workplace design, technological innovation, data protection and skills’ development.

*How many companies were involved in “Arbeit und Innovation”? What were their main characteristics? Did you follow any particular criteria for their selection?*

More than 100 companies and around 700 people among worker representatives and internal experts appointed by the employer participated in “Arbeit und Innovation” from February 2016 to July 2019. The participation was open to companies of all sizes but in the end, mainly medium and large enterprises (including a group of multinationals e.g. Airbus, Bosch, Thyssenkrupp, Siemens, Volkswagen, etc.) joined the programme. They were distributed quite homogeneously across the country and covered different sectors from machine building to car manufacturing. The majority of companies were highly unionised with strong worker representation structures. As regards formal requirements to take part in “Arbeit und Innovation”, all interested companies were demanded to submit an application where certifying, among other things, that:

- they were covered by a collective agreement;
- they were willing to carry out innovation projects with worker representatives;
- they would have freed two employees from their working duties to participate in a training programme without reducing their salary;
- they would have covered the travel expenses of the employees involved in the training programme;
- they would have provided for the establishment of a steering group responsible for the management of the company-level project.

*Are there any relevant company-level experiences developed within “Arbeit und Innovation” that you would like to share with us?*

An extended list of company-level projects is available [online](#) in German. Among those experiences, I can mention two projects tackling respectively vocational training and lean production. The former was developed in a company specialised in manmade fiber spinning systems and texturing machines and aimed at modernising vocational training in the light of digitalisation. Therefore, the project consisted of different initiatives e.g. the digitisation of textbooks and teaching materials; the exploration, in accordance with the local vocational school, of innovative teaching methods and learning tools better aligned to Industry 4.0; and the integration of theory and praxis in qualification programmes centred on R&D and assembly operations. The latter project was instead carried out in an elevator company with the objective to enable worker representatives to keep the pace with the many issues raised by management e.g. lean manufacturing, paperless production, smart factory, etc. For this reason, the project allowed for: the installation of a paperless workstation; the strengthening of the cooperation between worker representatives and management in the design of a Manufacturing Execution System; the introduction of regular meetings between worker representatives, management and affected workers on the development of ongoing projects; and the drafting of a company framework agreement addressing the introduction of digital technologies.

*Are these projects still running today? Did you experience any trouble in their implementation?*

Some projects (especially those started in 2016) have been successfully completed, while others are still ongoing. By and large, regional networks have been established throughout Germany to make sure that projects’ results do not get lost. As regards your second question, the implementation of many company-level projects was very time and resource consuming. At the beginning, we

assumed that the steering groups would have finalised their work within a year but due to unpredictable circumstances (e.g. bankruptcies, staff dismissals, etc.), delicate collective bargaining rounds and worker representatives' elections, many projects took longer. We handled these problems quite well, but you cannot overlook them. Secondly, since these projects were generally large and ambitious, it was very hard to involve smaller companies. Finally, in those companies where we managed to have a meeting with management, we were sometimes confronted with an initial scepticism but after the first workshops, that feeling was generally erased: in the end, we were successful at convincing all stakeholders that the transformation we are in can only be shaped together.

*What have been the main lessons learnt from “Arbeit und Innovation”? Are you planning a continuation of the programme?*

First of all, the experience gained from more than 100 company-level projects carried out within the framework of “Arbeit und Innovation”, shows that the transformation of work can be shaped also in the interests of workers. Even more importantly, it shows that there is not “one-size-fits-all” solution to the issue. Quite the opposite. Every worker representative is required to develop a specific strategy carefully tailored to her company needs. This is very demanding, but the good news is that worker representatives are not left alone as they can count on the support of IG Metall officials and external advisors. In more detail, the lessons learnt are the following:

1. Participation of the workforce is essential to take advantage of digitalisation, as it implies the development of shared labour-management strategies, thus reducing the risk of fears and reservations on the side of workers.
2. The involvement of both management and worker representatives favours a smooth project design and implementation, especially by promoting a common understanding of socio-technical principles underlying the programme (according to which the implementation of Industry 4.0 solutions needs to include human-related and organisational issues). However, management and worker representatives' partnership in these projects does not change the fact that they have different interests: companies are primarily interested in strengthening their competitiveness, while employees and their representatives are concerned about safety, justice and self-determination at work. Good solutions for the workforce are thus dependent upon the ability of worker representatives to engage in confrontational relationships and even disputes if it is necessary. Overall, decent digital work is all about balancing “boxing” (fighting with management for alternative strategies) and “dancing” (seeking to develop common labour-management projects)<sup>2</sup>.
3. Comprehensive “transformation strategies” need to be developed with the involvement of all industrial relations actors, so that they can be applied coherently from corporate to workplace level.
4. Since the development of these “transformation strategies” is complex and challenging, further qualification for worker representatives is needed. We should therefore design tailor-made qualification programmes based on company specific needs. Collaboration with external players and notably with learning factories should also be encouraged, as they allow to produce practice-oriented knowledge that can be easily translated into the shop floor.

With reference to the possible continuation of “Arbeit und Innovation”, we do not want to start the same project all over again, but we are working on a follow-up initiative to ensure the sustainability of the previous one. Furthermore, we were able to conduct a light version of “Arbeit und Innovation” with a South African delegation of shop stewards. Within 5 days, we organised the training module in the Learning Factory in Bochum and we visited a German company involved in

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<sup>2</sup> See T. Huzzard (2004), “Boxing and Dancing – Trade Union Strategic Choice”, in T. Huzzard et al. (eds.), *Strategic Unionism and Partnership. Boxing or Dancing?*, Houndmills, Basingstoke: Palgrave, pp. 20-44.

“Arbeit und Innovation”. It was very interesting to realise that South African shop stewards had the same concerns and fears as German worker representatives!

*Thank you very much Kathrin, just one final question: if you were speaking with an Italian colleague willing to start a similar initiative, what would you recommend her?*

Well, we do not see ourselves in a position to give advice to trade unions abroad as each country and context are different. However, we do believe that a programme like “Arbeit und Innovation” could be helpful for workers in other countries as well. If I can make few suggestions to Italian colleagues:

- Get financing e.g. by taking advantage of the opportunities offered by the European Social Fund.
- Do not raise expectations that you cannot meet. There is not “one-size-fits-all” solution, as every developmental experience depends on how we shape it together.
- Involve workers in every step of the project: they are valuable experts!
- Seek the collaboration with external players and learning factories if it is possible, but do not delegate them the task to choose the perfect strategy and instead, engage with them in the definition of the most suitable learning path.

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