

Future of Work and Industry 4.0 in the face of multiple drivers of change:

Terms of Reference for General Survey and Research – Call for Tenders

BACKGROUND

The economic, political, social and organizational challenges revealed by the multiple crises of year 2020 make it clear that there is a need for further understanding and articulation of the various drivers of change through research, survey and trade union participation through different tools.

Particularly in the context of the COVID-19 pandemic, changes have been accelerated and need to be carried out with some order linking the effects of COVID-19 pandemic, climate change, Industry 4.0 / digitalization, global pandemics, changing global trade relations.

The future of work and the consequences of digitalization/industry 4.0 and GreenTech as industry's contribution to tackling the climate crisis are critical areas for IndustriALL Global Union's sectors in manufacturing, energy and mining. The organization uses the term Industry 4.0 to describe a basket of technologies and work structures that are rapidly transforming the world of work as well as the working relations. These include advanced digitalization, the use of Artificial Intelligence in design and production of goods, semi-autonomous and interconnected machinery, advanced robotics, 3D printing, platform work, work in the gig economy and crowd work.

If we can accompany the implementation of these new technologies properly, we can help to create quality work with reduced working time and improved occupational health and safety. Among IndustriALL's strategies for Industry 4.0 paramount are:

- the demand for full participation of workers at global, regional, national and company level discussions on Industry 4.0 implementation and use
- the protection of human and workers' rights, particularly rights to information and consultation, training and education, and privacy, including ownership of own data and the right to deletion of (wrong or illegally acquired) data
- a Just Transition for workers, their families, and the communities that depend on them, through the transformation

The actual crisis (partly linked to the pandemic) did not trigger but certainly accelerate the processes we describe above.

Review over already existing knowledge in the organization that can be in parts used as framework for future research:

IndustriALL Global Union already has policy papers and/or guidance documents on some of these drivers:

- Industry 4.0 / Digitalization: With a specific report prepared by an experts' group from the affiliated organizations with the title of "[The Challenge of Industry 4.0 and the Demand for New Answers](#)" and discussed by a global conference, IndustriALL Global Union has developed its position in this field.
- Future of Work: In order to understand and to respond effectively to the new challenges in the world of work around the International Labour Organization's "Future of Work initiative",

in order to be able to advance its mandate for social justice, IndustriALL has developed its own "[Future of Work](#)" document.

- *Just Transition*: For preparing itself and its affiliates for the global transformation driven by "climate change and Industry 4.0", IndustriALL Global Union has prepared its "[Trade Union Guidance for Just Transition](#)".
- *GreenTech*: In anticipation of the challenges linked to the climate change and the responses given by IndustriALL's sectors, namely the Mechanical Engineering, IndustriALL Global Union has adopted the [GreenTech Manifesto 2020](#)

OBJECTIVE

With the support of Friedrich-Ebert-Stiftung (FES), IndustriALL conducts a project on "The Future of Work and Just Transition in the Face of Multiple Drivers of Change". Within this project, IndustriALL Global Union will focus with this research at hand on Industry 4.0 as one of the important drivers of industrial production and services. This research will be followed by online experts' meeting(s) with the participation of affiliated trade unions and Regional Offices staff.

This part of the research is meant to be complementary to the research on other items. Objectives here are:

In General:

- Summarize and up-date the knowledge that already exists within IndustriALL, along with examples and good practices from countries where positive experiences have been made:
- This may be existing social dialogue structures over tackling the changes in industrial settings or
- "Round table" systems or social dialogue on multinational levels (i.e., European Union)
- Also, legislation (labor or social rights or other legislation) covering the challenges that arise from the changes linked to digitalization
 - Create a series of tools and pathways that help unions defend workers' rights vis-à-vis companies and governments.
 - Research on successful/promising trade union practices to tackle the changes: Make best practices available for exchange and learning processes

We expect a comprehensive report that summarizes and explains the research results. Also, if there is data (i.e., about expected decline of sums of less required man-hrs or FTE's in industrial production or ratio/share of job losses/gains), we expect a collection of these data. Finally, presentations over the research results that can be used also for training purposes shall be produced. These documents shall serve the following purposes:

- Training manual for trade union leaders in the sectors and in the regions ("a guide towards capacity building")
- Collection of training materials (presentations, slides, explanatory notes) on latest development in the sectors, but more important in the different regions) that can be used by spreading the knowledge in the regions and exchange good practices.

TOPICS THAT THE SURVEY AND RESEARCH SHALL COVER

The general survey and research have to analyze:

1. Industry 4.0 and the status of introduction of related technologies and production (and services patterns) in different regions (Europe, South Asia, South East Asia – including Japan - , Latin America and the Caribbean)
2. Implications for the future of work with a view to the changes in the last years, reflecting namely the findings of the document of IndustriALL dated November 2017. This refers explicitly also for new forms of work like “working in the gig economy”, “platform work” and “crowd work”
3. Potential impacts of Industry 4.0 on IndustriALL’s most affected sectors (ICT-Electronic, Mechanical Engineering, Automotive) and in the above-mentioned regions. This set of questions is referring to
 - Working relations – CBA relations, remote work and new forms of work and collective representation of workforce –
 - “Big Data”: How to ensure data security and private data possession (potentially compromising privacy rights of workers, customers and their families through collecting data by the MNC’s) - and how to ensure the “right to disconnect”?
 - Potential for reduction of workplaces (share of increased automation and employment trends (decline of man-hours needed for a given production volume?))
 - Future qualifications needed > up-skilling and re-skilling needs for existing workforces
 - Different “Speeds” of introduction in global North and South > consequences for workplaces and trade union practices
4. Good practices – where and how did trade unions manage to tackle the changes, related to the new production and working patterns
 - **On political level** (i.e., “round-table-talks, tri-partite social dialogue in the reviewed regions and countries:
 - Do these institutions exist?
 - Are trade unions involved
 - How (if) are union representatives trained for the task to protect workers’ rights in these units?
 - Legally binding Information, consultation and co-determination means
 - **On sectorial or company (MNC) level:**
 - Collective Bargaining in the shadow of digitalization (sector, MNC, Country) Safeguarding jobs, agreements regulating qualification schemes or similar
 - Working time and Remote work regulations (i.e., working time reduction in order to re-distribute the man-hours)

REGIONAL DIMENSION OF THE RESEARCH:

Regions of more intensive review within this research will be (as laid out above):

1. Europe (namely the area of the European Union)
2. Latin America and the Caribbean
3. South Asia (India, Sri Lanka, Bangladesh, Pakistan)
4. South East Asia (namely Indonesia, Vietnam, Philippines, Thailand, Japan)

METHODOLOGY

A work-calendar will be fixed at the beginning of the activity between the researcher(s) and IndustriALL.

During the preparation of the research paper, there will be regular consultation and interaction between IndustriALL and the researcher(s) selected, to verify that the work is proceeded as planned.

In addition, this communication serves the purpose to make sure that possible new findings are pursued and/or investigated properly when they occur during the research process.

Most important is the integration/participation of the regions in the research. Therefore, the researcher(s) will have regular consultation/interviews with the regions in order to be aware of the different needs in different regions and also monitor the differences between the regions.

Proper controlling (planning and steering will be introduced, with fix milestones. At these milestones, the researcher(s) will prepare brief summaries with the latest work done in order to enable the partners to properly weigh the findings and decide whether to continue on this path or eventually change direction.

Final document will be handed over on 15th October 2021 the latest to the responsible partner at IndustriALL so that they have enough time to evaluate it and make any necessary clarifications.

ELIGIBILITY CRITERIA FOR THE RESEARCHER(S)

- It is necessary that the person(s) who will carry out the work have an in-depth knowledge about the future of work and Industry 4.0.
- Researcher/s should be academics with trade union background and experience preferred with additional profile
 - Preferably with in-depth knowledge about industry 4.0 implication/s in different regions, especially in the Global South
 - Trade union work in industrial sectors environment
 - Basic knowledge about the new/latest technological development in order to classify the trends
 - Interest in “shaping the future”
- Excellent research and writing skills (in English) required
- The researcher/the research team must be able to conduct interviews in French, English and Spanish.

The expert(s) will focus on labor and trade union point of view in a way to be able to develop key points for future of work and Industry 4.0. Therefore, it is important that the expert(s) have knowledge and sensitivity about labor issues, including fundamental rights, trade union work and structures. It will be a comparative advantage for the expert(s) to have contacts and links with national and international trade unions and relevant organizations working on these issues. Also, some insight in the developments in the global South are advantageous.

RIGHT OF USE

IndustriALL, the Friedrich Ebert Stiftung who is supporting this research, and any third party will be entitled to reproduce the comprehensive report, the set of data and the presentations as a whole or in part and as often as required including the usage online.

DEADLINE FOR SUBMISSION OF THE OFFER AND BINDING PERIOD FOR THE OFFER

Please submit your tender in English and in writing (via e-mail or postal mail) by July 15th 2021 12:00 o'clock (Geneva Time). Tenders received after this deadline cannot be evaluated. Your tender must be valid until at least August 1st 2021 (tender validity period).

AWARD CRITERIA

The tenders are evaluated according to the following award criteria:

- Quality of the offer (60%)

- The quality of the offer will be evaluated based on past products or services, level of knowledge as well as on how the expert plans to deliver the requested performance.
- Cost: (40%)
 - The cost offer will be evaluated by measuring the offered services against the price. The maximum budget for this research is 15.000 €, quotes will be measured by the best price/service ratio.

CONTENT OF THE OFFER (60%):

Please submit together with the expression of interest in the tender cover letter (One-page maximum) the following information:

- Please provide a list of relevant researches you have conducted on industry 4.0 and the future of work and two samples of these researches.
- Provide also information on other relevant activities (2-3 lines max/ each activity) that you have conducted (that are not researches or trainings) that can help evaluate your level of knowledge on industry 4.0 and the future of work
- List of trainings you have developed and conducted on industry 4.0 and the future of work: Please provide a list of relevant trainings that you have developed and conducted on industry 4.0 and the future of work with trade unions. Please provide a sample of a training module you have developed. You can also provide a list of additional trainings you have conducted with other social partners (if any) on industry 4.0 and the future of work).
- List of activities conducted with global labor movement
- Please provide information on relevant activities (2-3 lines max/ each activity) that you may have conducted with Global Unions, or with MNCs.

FINANCIAL OFFER (40%)

Please provide a financial offer with a basis for calculation (e.g., 50 working days at 300 €/day). Please indicate your net price (i.e., excluding VAT).

GENDER DIMENSION

IndustriALL Global Union strives to increase the number of female researchers and activists in academia, science, trade union education and activism. Applications from female researchers are therefore explicitly welcome. Applicants will be notified accordingly.

EXPECTED DATE OF AWARD FOR THE CONTRACT:

31st July, 2021

If you have further questions, please do not hesitate to contact Matthias Hartwich at IndustriALL hartwich@industriall-union.org