

Sectoral Human Capital Study II (BBKLII)

Material recovery sector

Survey results
– 1st edition

About the study



Project name

Sectoral Human Capital Study II – Materials recovery sector – 1st edition

Study Objective

To increase the knowledge about the current and future demand for skills in the material recovery sector



Respondents

qualitative study: employers, industry experts, educational institutions, recruiters, labour market analysts

quantitative study: employers from the material recovery sector (excluding the self-employed) and employees working in key positions

Research dates

1st edition of the study

November 27, 2020 – December 23, 2021

including quantitative research

July 21, 2021 – September 7, 2021

About the sector

Entities involved in the processing of municipal waste



sorting plants



paper mills



composting plants



plastic processing plants



biogas plants



incineration plants



glass and ferrous
metal ironworks

The sector comprises **2.9 thousand enterprises**:

- » **53%** – waste collection entities
- » **13%** – waste processing and waste treatment entities
- » **33%** – raw materials recovery entities

(ZUS data 2020, excluding the self-employed)

Size of enterprises in the sector:

- » **87%** – micro-enterprises (much less compared to Polish enterprises overall)
- » **10%** – small enterprises
- » **3%** – medium and large enterprises

(Statistics Poland data, REGON July 2021)



Key business processes and key positions

Collection and transport of waste

- foreman / shift master / shift manager
- trader
- driver
- maintenance worker / service technician / mechanic
- sorter
- waste loader
- logistician / freight forwarder / dispatcher

Storage

- foreman / shift master / shift manager
- technologist / traffic engineer
- operator of specialty machines and devices
- logistician / freight forwarder / dispatcher
- warehouseman

Preparation of waste for reuse or recycling

- foreman / shift master / shift manager
- technologist / traffic engineer
- driver
- operator of specialty machines and devices
- maintenance worker / service technician / mechanic
- sorter

Waste processing

- foreman / shift master / shift manager
- technologist / traffic engineer
- operator of specialty machines and devices
- maintenance worker / service technician / mechanic

Waste transfer

- foreman / shift master / shift manager
- trader
- driver
- operator of specialty machines and devices
- logistician / freight forwarder / dispatcher
- warehouseman

Two additional key position – **plant manager, environmental protection specialist** – are also connected with all 5 processes but indirectly not directly

Balance of competences (skills) for the three categories of positions

Key positions have been grouped into managerial, specialized and non-specialized

Managerial positions



plant manager



foreman

Specialized positions



environmental protection specialist



logistician



trader



maintenance worker



technologist

Non-specialized positions



driver



sorter



operator of specialist machines and devices



warehouseman



waste loader

The conducted analysis made it possible to identify

- » areas of skills, mismatch
- » availability of skills on the market
- » skills whose importance will change in the next 2 years



Balance of skills for managerial positions

Skills most important in managerial positions

- » social skills
- » organizational skills
- » knowledge about plant's operation

Difficulty in acquiring skills for managerial positions was assessed as moderate

Difficult acquiring skills affected



42% of skills identified for the plant manager



7% of foreman's skills

Skills whose importance will grow in the next 2 years

- » plant manager: knowledge about circular economy and the European Green Deal
- » foreman: knowledge how to process waste, independence

Balance of skills for specialized positions

Skills most important in specialized positions are specific skills that enable appropriate performance of tasks at work

In the case of specialized positions, **difficulty in acquiring** skills was assessed as high

This group includes positions characterized by the biggest number of skills that are difficult to acquire. They are as follows:



100% of skills identified for environmental protection specialists



93% of technologists' skills



86% of logisticians' skills



53% of traders' skills

According to employers, **the importance of specialized skills which enable efficient performance of tasks at work will increase significantly** in this group in the next 2 years



Balance of skills for non-specialized positions

Skills most important in non-specialized positions

- » social skills revealing the attitude to work
- » easy-to-acquire specialized skills for the particular positions

Difficulty in acquiring skills for non-specialized was assessed as low

Key positions for which difficulty in acquiring skills was not identified



sorter



driver



waste loader

Key positions for which only a few difficult-to-acquire skills were identified



operator (12% difficult to access skills)



warehouseman (5%)

Among skills identified for non-specialized positions, **we do not see forecasts indicative of growing importance of skills in the next 2 years**

Demand for employees

19% of the sector employers looked for workers between July 2020 and July 2021

Of the recruiting employers

- » 12% did not manage to hire anybody
- » 40% had difficulty hiring new people

Most demanded employees



sorter
(40% of employers' indications)



waste loader
(28%)



driver
(23%)

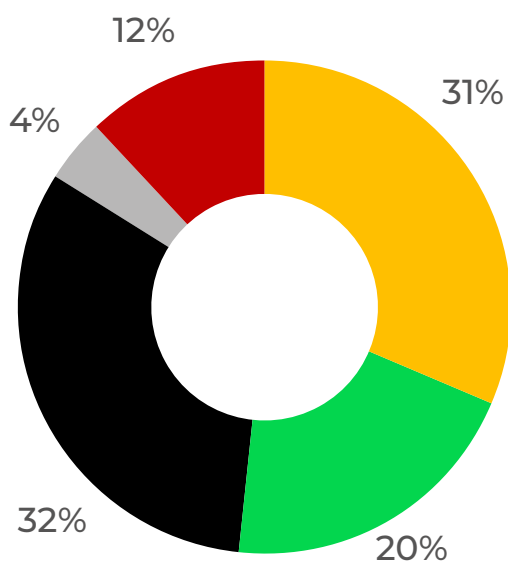


warehouseman
(16%)



Employment forecast on key positions

- » 8% of employers expect employment growth in the next 12 months
- » 81% of employers believe that in the next 12 months the total number of employees in their companies will not change
- » 18% of employers expect employment growth in the next 2 years
- » 68% of employers believe that in the next 2 years the total number of employees in their companies will not change



Recruitment results broken down into numbers of employed workers (between July 2020 and July 2021)

31% 1 person

20% 2 persons

32% 3 or more persons

12% no new persons

4% don't know

Source: Own study based on BBKL II material recovery sector – 1st edition 2021 (n=166)

Evaluation of employees' skills

58% of employers evaluate their employees' skills, of which

- » 29% run systematic evaluations (at least annual)
- » 29% run occasional evaluations (less than once a year)

Methods of employees' skills evaluation most frequently used by employers

- » 69% interview with supervisor
- » 17% descriptive information
- » 16% evaluation of the achievement of goals
- » 12% obtaining information from employee's colleagues, superiors, subordinates, customers, etc.

According to a vast majority of employers (95%), the skills of their companies' employees are satisfactory, with 61% of employers admitting they are fully satisfactory

Measures implemented by employers if employees lack skills

- » 65% of employers train current employees
- » 26% of employers hire new people with the required skills
- » 16% of employers hire new people, who are then trained
- » 15% of employers reorganize the company to take advantage of existing employees' skills
- » 12% of employers do not take any action





Development of employees' skills

68% of employers have developed their employees' skills during the last 12 months
(development activity index)

Methods of developing employee skills in the workplace – most often listed by employers

- » Instruction on how to use new equipment, machines, software - 43%
- » Internal courses and training, carried out by company employees - 27%
- » Job rotation - 26%
- » Courses and training provided by an external company - 25%
- » Direct observation of another employee's work - 22%

Development of skills of employees working in key positions

Depending on the position, between 23% and 30% of the surveyed employees working in key positions developed their professional skills in the workplace in the last 12 months

Only every fifth surveyed employee plans to develop their skills and knowledge in the next 12 months, by participating in various forms of training and development

Development of skills is more likely to be planned by people working in specialized positions, who are required to have specific skills (technologists, logisticians)

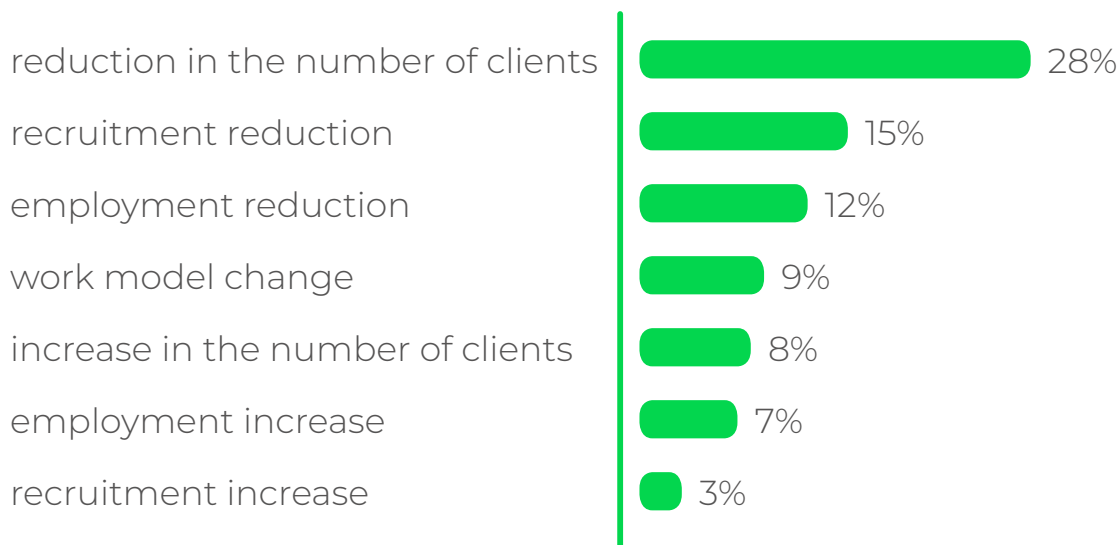
Employees working in non-specialized positions less often choose to develop their skills

Pandemic's impact on the sector

38% of employers noticed negative effects of the pandemic

Negative impact of the pandemic was most likely to be reported by entities involved in the recovery of raw materials (**43%**) and representatives of medium-sized companies (**46%**)

Changes in companies resulting from COVID-19 pandemic



Consequences of COVID-19 pandemic for companies

- » **72%** the need to adapt company's procedures to health and safety requirements
- » **51%** staff shortages resulting from employees being quarantined
- » **44%** increase in company's operating costs
- » **41%** problems with suppliers or customers
- » **36%** financial liquidity imbalance

Source: Own study based on BBKL II material recovery sector – 1st edition 2021 (N=809)



Full survey results are discussed
in the study

Sectoral Human Capital Study II
Materials recovery sector

Report from the first edition
of the survey (in Polish)

 [Unique monitoring, on the Polish and
European scale, of the demand for skills
on the labor market](#)