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PRESENTER
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CLUSTERO

Value Chain in Eco-construction: Romanian Case

SCOM meeting DanuBioValNet

Stuttgart, December 4, 2017

Project co-funded by European Union funds (ERDF, IPA)

Romanian framework for bio-based industries

- Large variety of natural resources (forests, natural gas, fertile agricultural lands, brown coal and lignite, crude oil, salt, mineral, silver, gold and hydrological networks)
- Unused technical energy production potential from renewables is of around 8,000 ktonnes, which includes 47% biomass and biogas, 19% solar, 19% wind, 14% hydro and 2% geothermal energy
- **Regional VC Mapping:** for the final selection from the three VCs to be mapped in detail, **Romania** selected (as agreed in Prague) **Eco-construction**

Project co-funded by European Union funds (ERDF, IPA)

List of Romanian cluster initiatives for bio-based industry: Eco-construction

- PROWOOD (primary biomass sector) – Silver label
- ROSENC (Renewable energies; ECO BORDEI) – Silver label
- Builders Guild Iasi (eco construction) – Bronze label
- Construct Cluster Oltenia (eco construction) – Bronze label
- Clusterul Lemnului Bucovina

Project co-funded by European Union funds (ERDF, IPA)

Regional Report – Eco-construction in Romania
Overview of the results

- Five (5) end-market firms which are members in four (4) clusters were interviewed:
- One of the clusters covers the whole eco-construction value chain and representatives of two of its firms were interviewed.
- One of the firms is producing building materials and is member in an eco-construction cluster.
- One firm is producing log houses and is member in a wood cluster.
- One of the firms in producing low carbon footprint houses - earth is member in a cluster in the fields of renewable energy, energy efficiency and the new sustainable energy.

Value chain in Eco-construction

LOGS | TIMBER | SOLID WOOD PANELS | WOOD FLOORING | DORS AND WINDOWS | FURNITURE

3 (2 PRO WOOD, 1 SUCEAVA WOOD)

1 CCO

BIOMASS | INSULATION MATERIAL | FACADES | WOODEN ROOF | PREFRABICATED HOUSE

3 (2 PRO WOOD, 1 SUCEAVA WOOD)

1 CCO

1 (ROSENC – EcoBordei)

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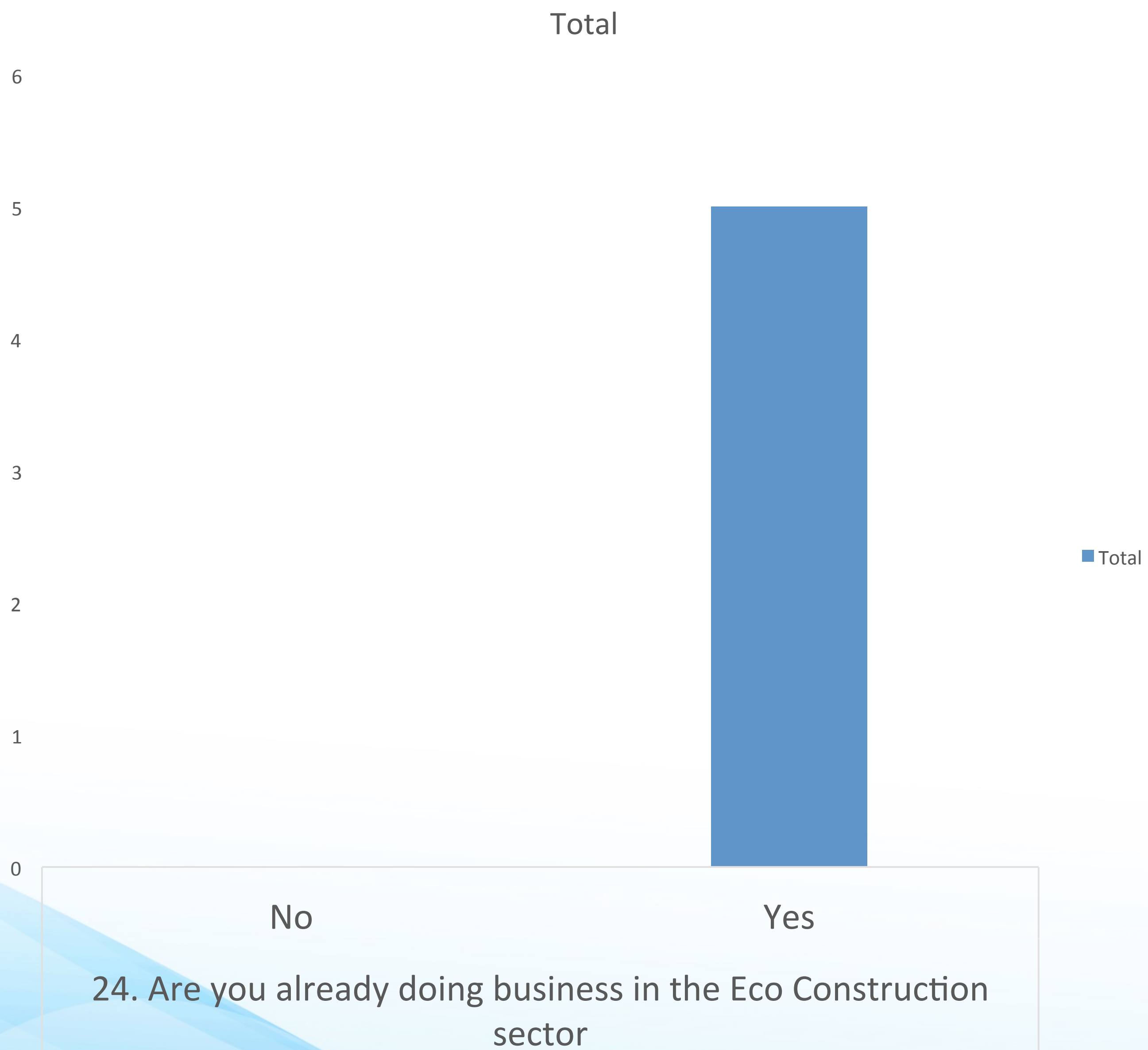
General information: Q24

Already doing business in the Eco Construction sector (Question 24):

There is a unanimous positive answer to this question, all the interviewed firms are in the eco-construction sector.



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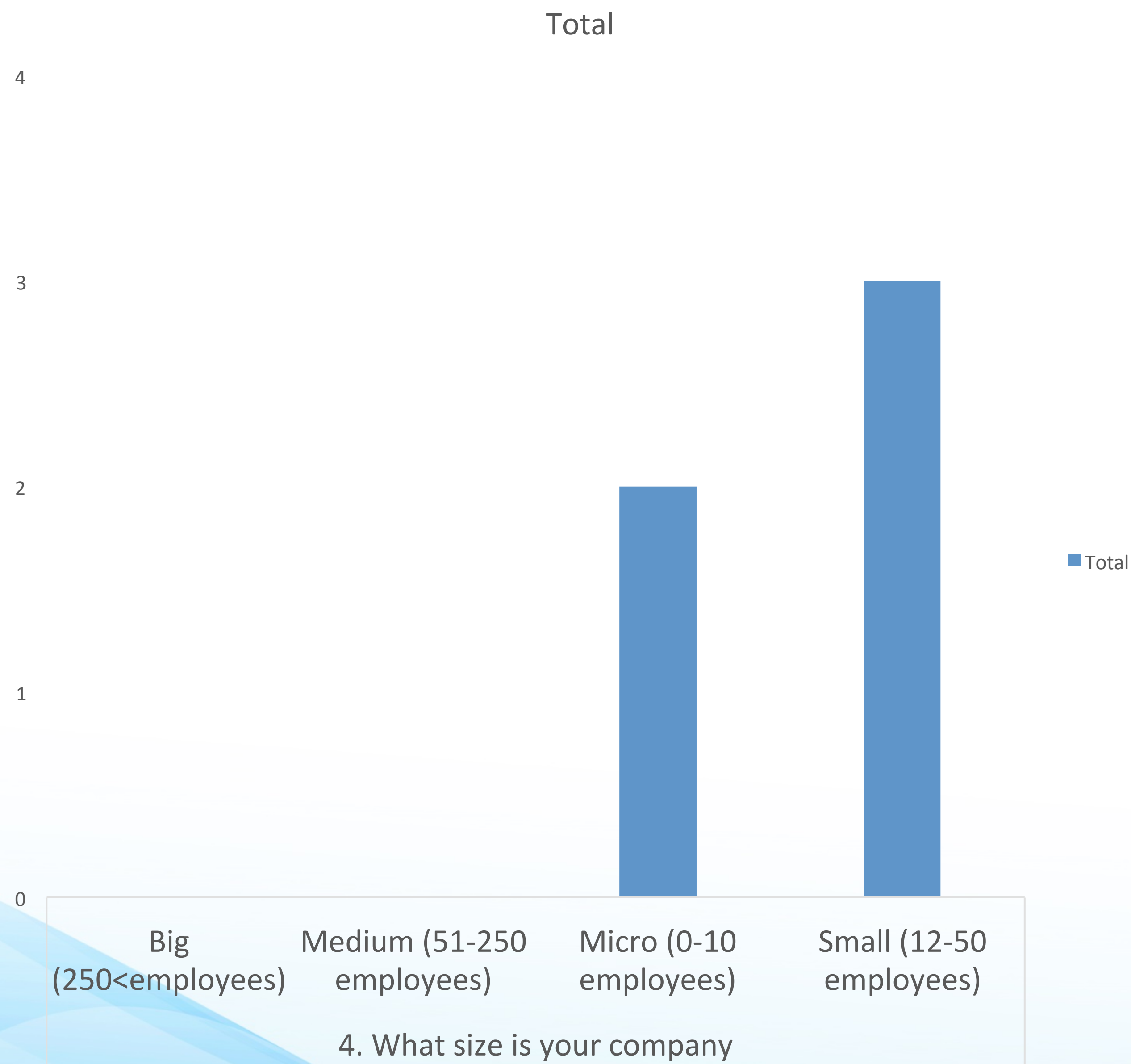
General information: Q4

Size of companies (Question 4): Two companies are micro, while the other three are small. No medium or big companies were surveyed.



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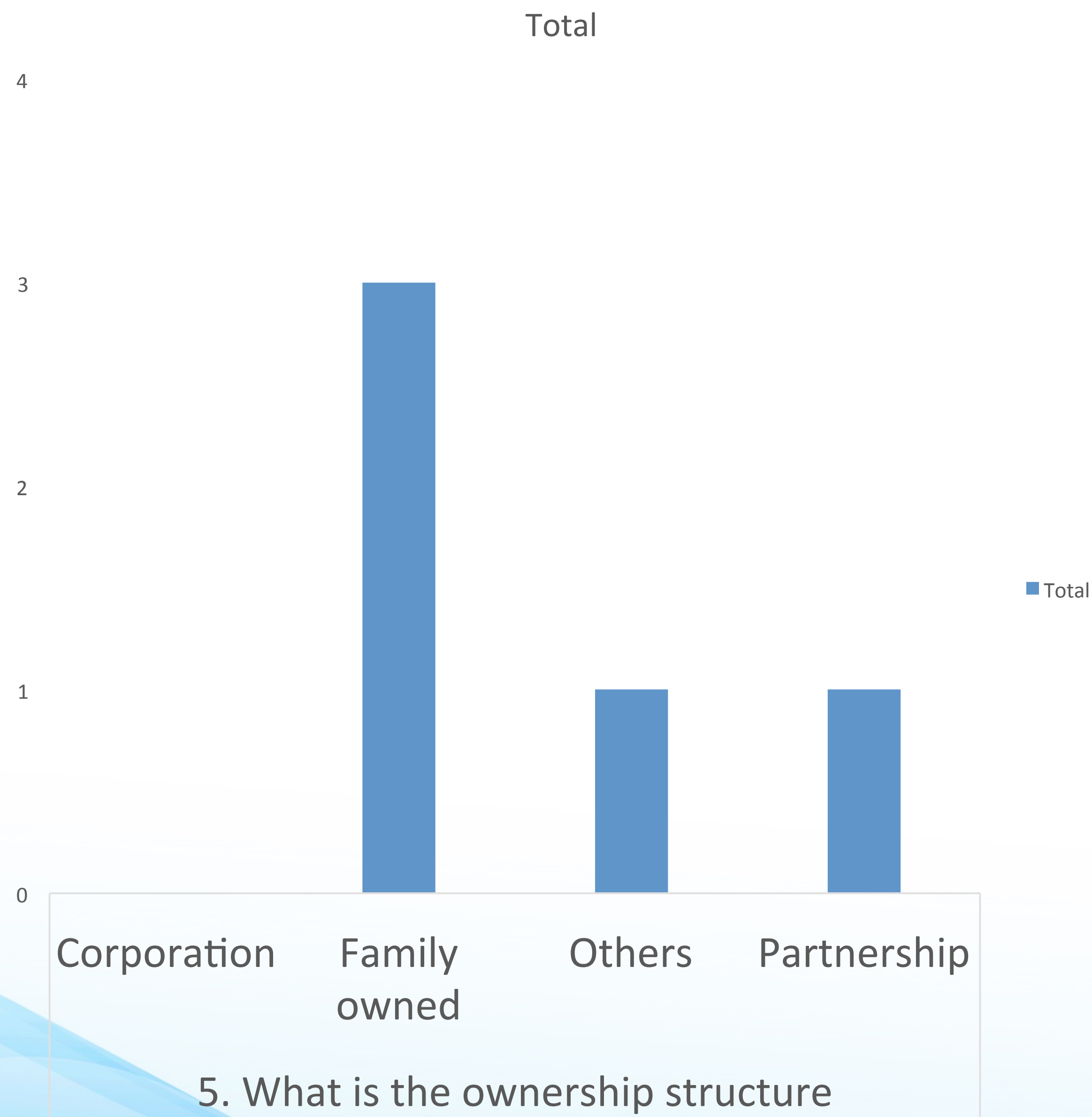
General Information: Q 5

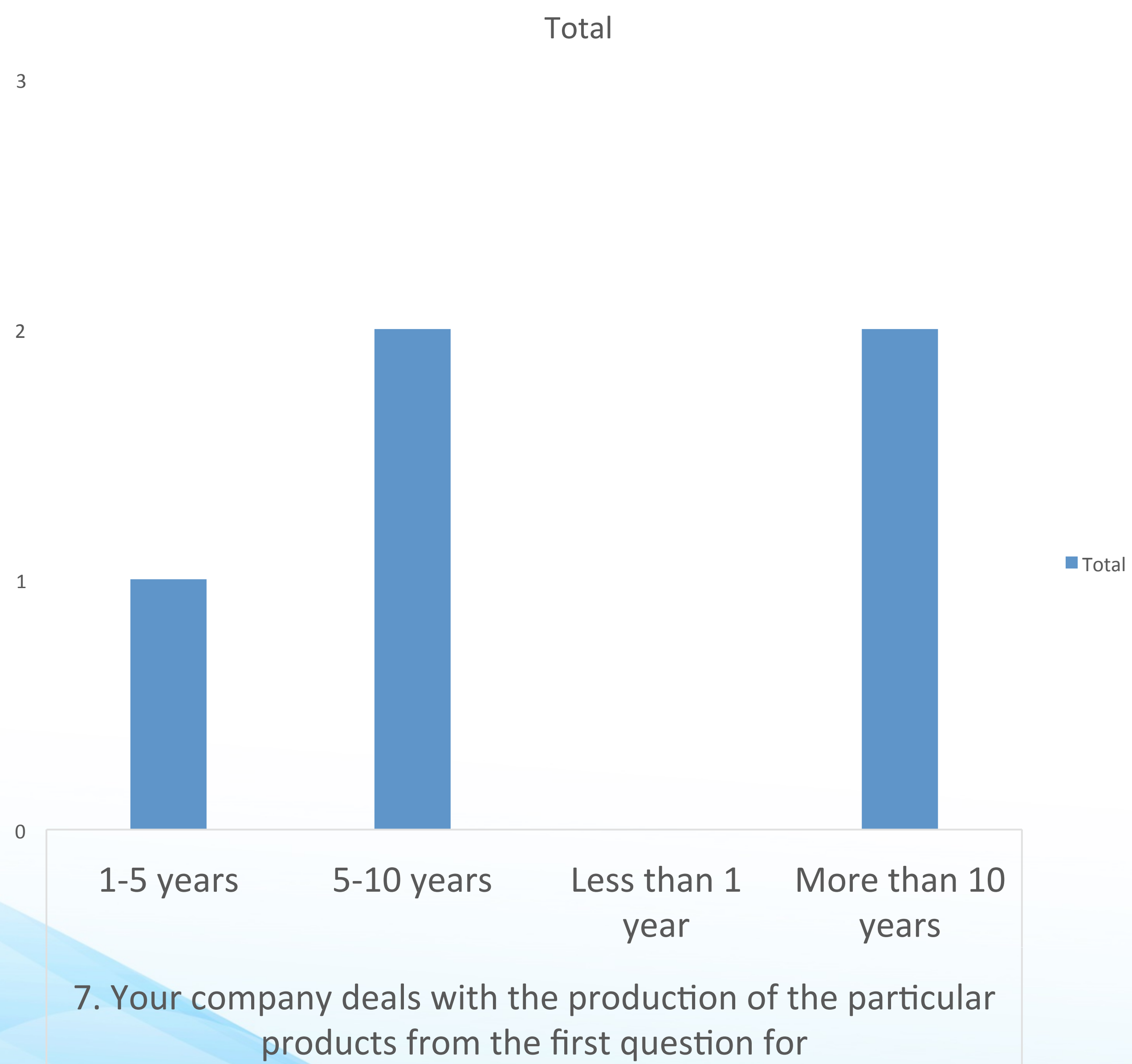
Ownership structure (Question 5): The companies are family owned, one is a partnership and one company



Project co-funded by European Union funds (ERDF, IPA)

General information: Q7

Experience in producing the listed products (in years) (Question 7): Two firms have more than 10 years of experience, two between 5 and 10 years and only one has less than 5 years of experience.



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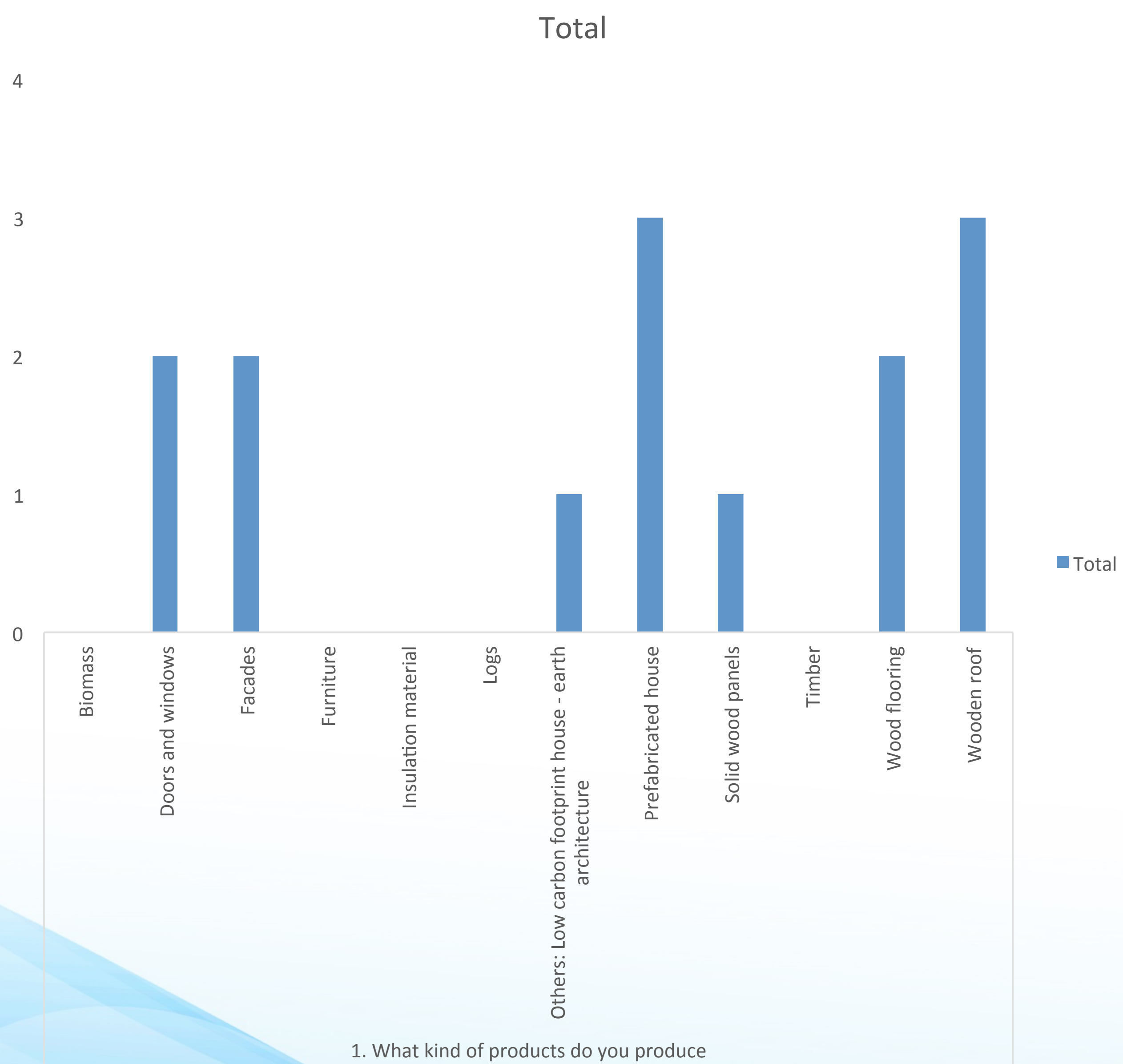
General information: Q1

List of products (Question 1): More often the firms produce wooden roofs and prefabricated houses (3/5), then wood flooring, doors and windows, and facades (2/5) and only one firm produces solid wood panels and another one produces low carbon footprint house - earth architecture. No production of logs, timber, furniture, biomass and insulation material.



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General information: Q20

- **Available substitutes for their product** (Question 20):

Firm 1: Yes, but not eco (Iron/PVC)

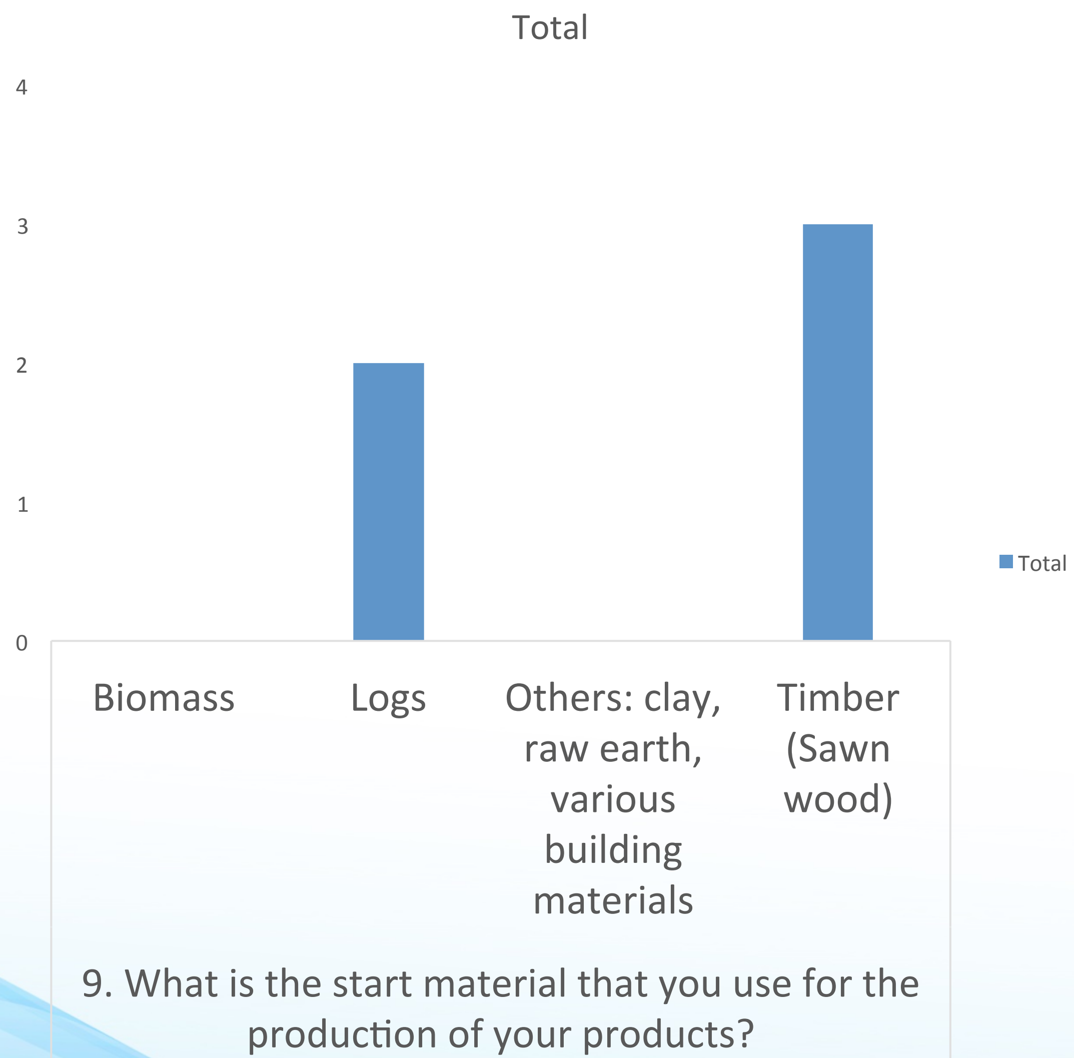
Firm 2 and 3: Other type of prefabricated houses

Firm 4: Their concept is unique in Romania;

Firm 5: Other type of prefabricated houses.

General information: Q9

List of start material used (Question 9): One firm use as start material both logs and timber, two use only timber, one uses only logs, while one firm did not specify it.



General information: Q14; Q8

PRODUCT QUALITY

- Organizing product quality management (Question 14): With respect to the management of the product quality, most of the firms have their own quality measures (4/5), while one firm relies on the quality measures of suppliers.
- Quality certification (Question 8): Two firms plan to introduce certificates in less than 2 years, one works with ISO, while two of them have no quality certificates.

General information: Q2; Q32; Q3; Q22

BUYERS

- List of buyers (Question 2): All firms sell their products to the end customers, while only one of them sells also to retail, wholesale and contracts/projects.
- Ways to get new cooperation with customers (Question 32): All the firms get new customers through direct contact (5/5). Also online platforms are important (3/5). Trade fairs in Romania are not widely used for this field of eco-construction (1/5).
- Export (Question 3): Only two firms export 30% of their production, both of them to Germany, while one exports also to Italy and Macedonia.
- Most sophisticated client-country (Question 22): Firm 1: Germany; Firms 2 and 3: NA; Firm 4: France; Firm 5: Italy.

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Suppliers of the source material

Q10; Q13; Q11; Q12

- **Main source of wood raw material (input)** (Question 10): For two of the firms, the main source for the wood raw material is state owned forests. One of these firms, is using also wood from private forests and imported. The rest of three firms have only one source, namely private forests (1/5) or an 'other' unspecified source (2/5).
- **Firm's prognoses for the future regarding source material for their product** (Question 13): The prognoses are moderately positive (3/5) that will be enough logs for all sawmill capacities installed in Romania and enough source material (other than logs) for all the firms in the field (the respondent and the competitors). One firm did not answer this question and two of them had mixed options (one YES and one NO).
- **Key requirements when purchasing wood raw material** (Question 11): In what regards the key requirements when purchasing wood raw material, all firms look first for quality (ranked 5 by 5/5). Also, highly ranked (5) are quantity, reliability, and on-time delivery. Second highest ranking (4) are on-time delivery, price and the payment mechanism. Lowest importance have packaging (rank 2) and certificates (rank1). The payment mechanism is ranked lower (2) when quality and price are ranked higher (5 and respectively 4).
- **List of the current obstacles to obtain more material** (Question 12): Firms have to overcome different obstacles in their current activity. The high ranking (5 and 4) obstacles are the availability of the raw material, its quality and its price. Other obstacles of decreasing importance are the payment deadlines and the lack of a certificated source material.

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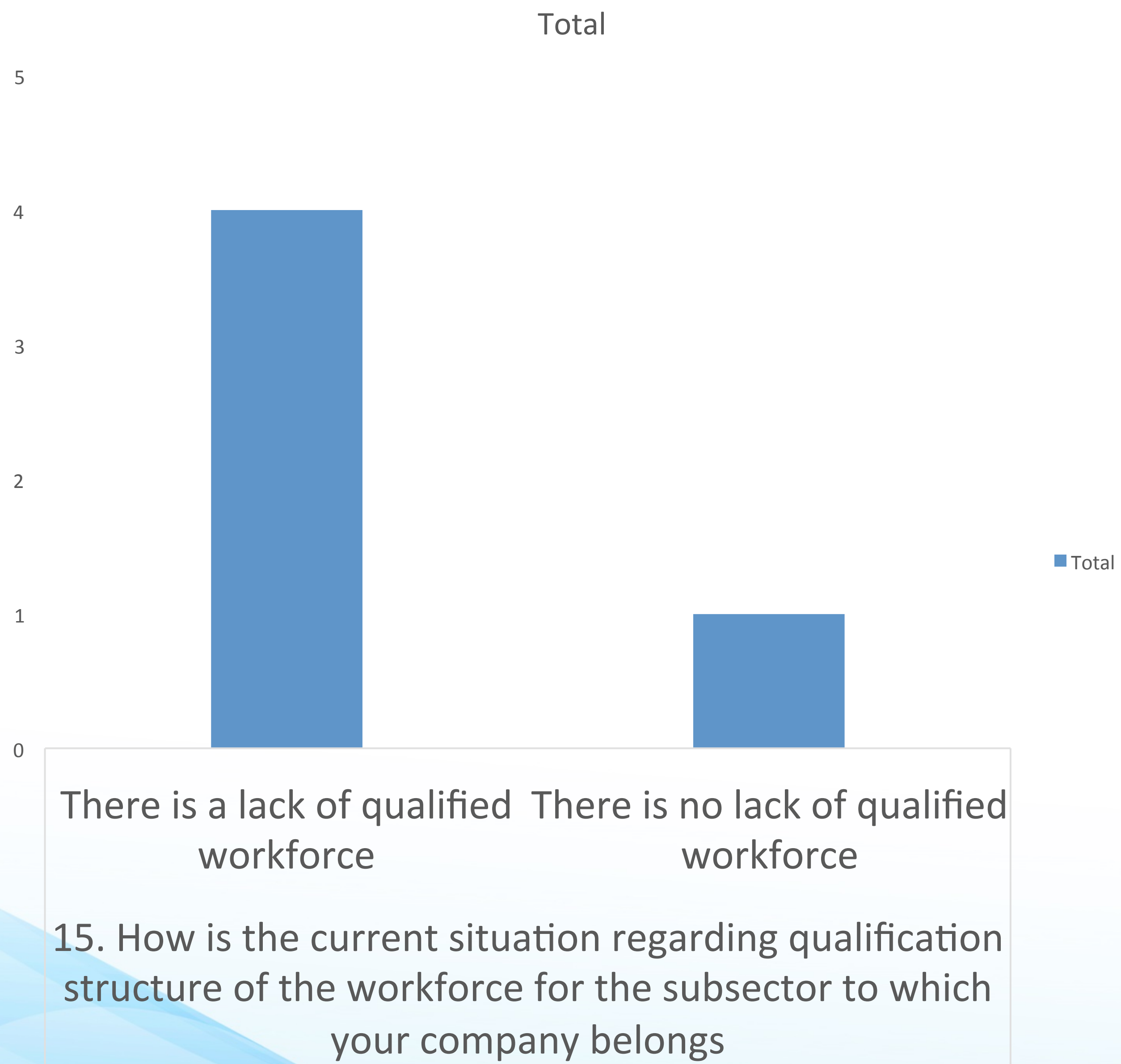
Quality and Labor Force: Q15

Qualification structure of the workforce for their subsector (Question 15): Most of the producers (4/5) face a lack of qualified workforce.



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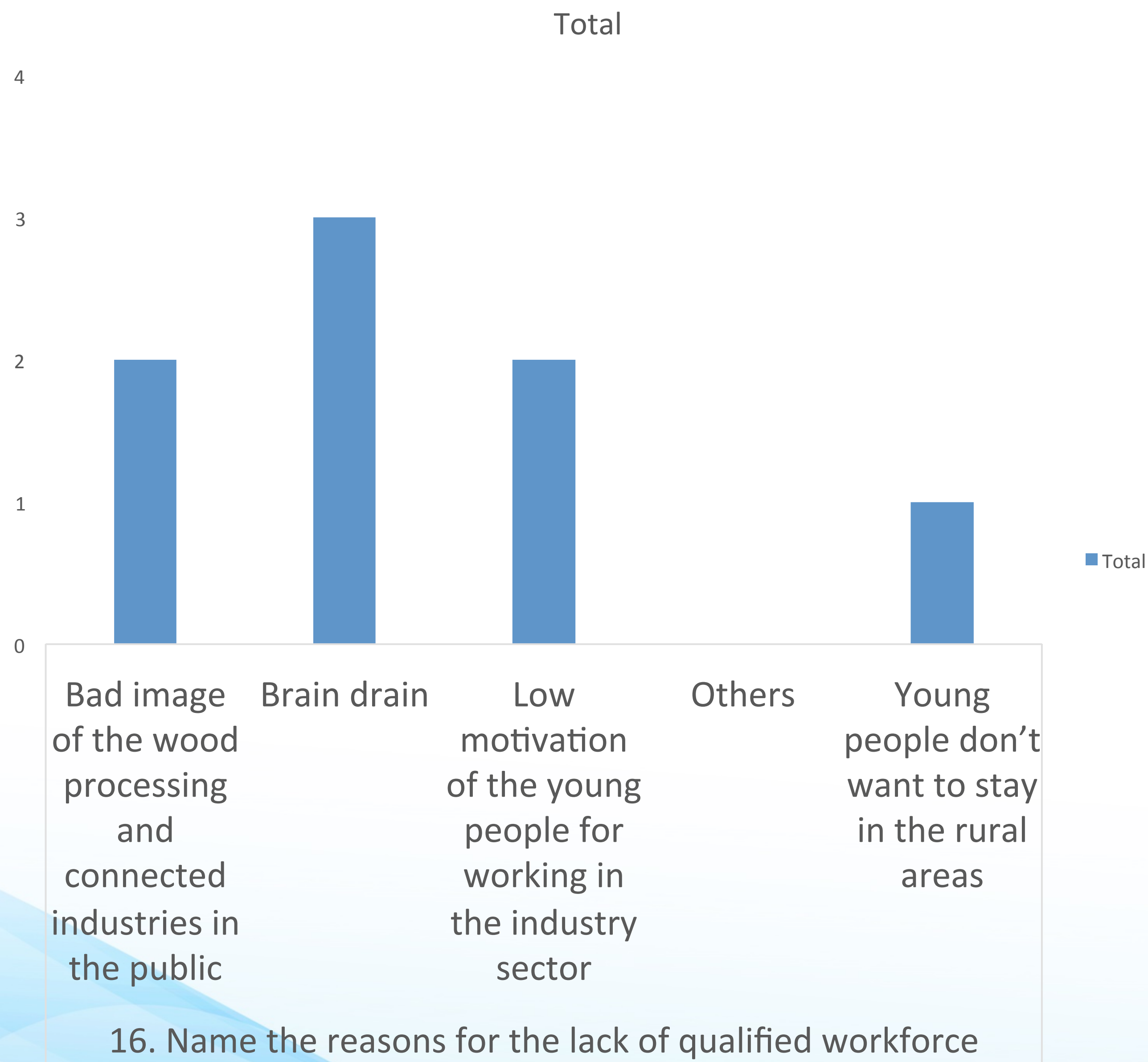
Quality and Labor Force: Q16

Reasons for the lack of qualified workforce (Question 16): The main reasons for the lack of the qualified workforce are brain drain, the bad image of the wood processing and connected industries, and a low motivation of the young people for working in that industry. It was also mentioned the urban attraction for youth.



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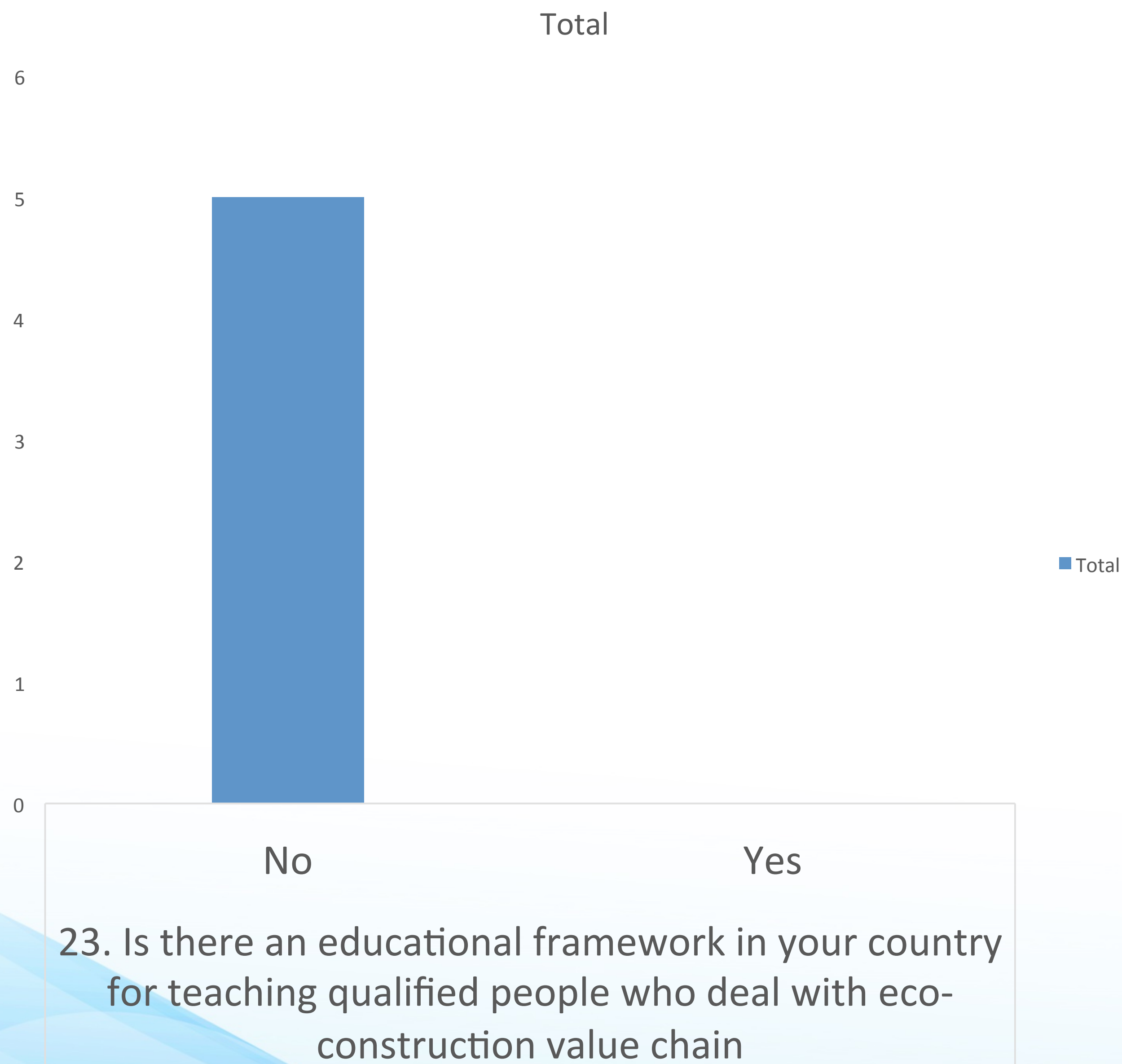
Quality and Labor Force: Q23

Existence of an educational framework in Romania for teaching qualified people, who deal with eco-construction value chain (Question 23): There is a unanimous negative answer to this question, there is no educational framework in Romania for teaching qualified people, who deal with eco-construction value chain.



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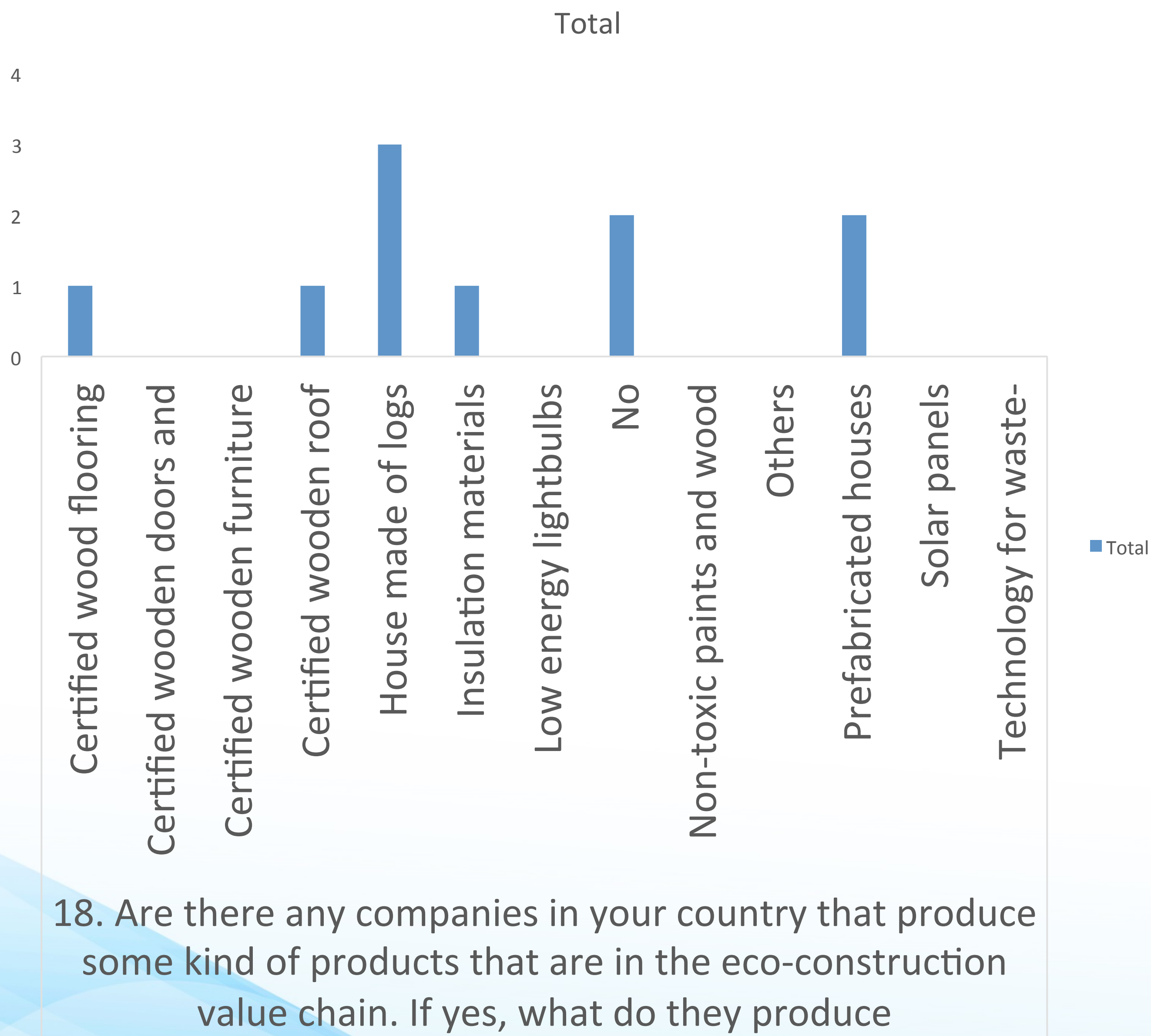
Competition

- **Competitors** (Question 19): One firm has regional, national and international competitors, one has both national and international competitors, one has both regional and national competitors and two have only regional competitors.
- **Leading firms and leading countries in their field** (Question 21): Companies in France that are well established in the earth architecture market and another company in Romania producing log houses.

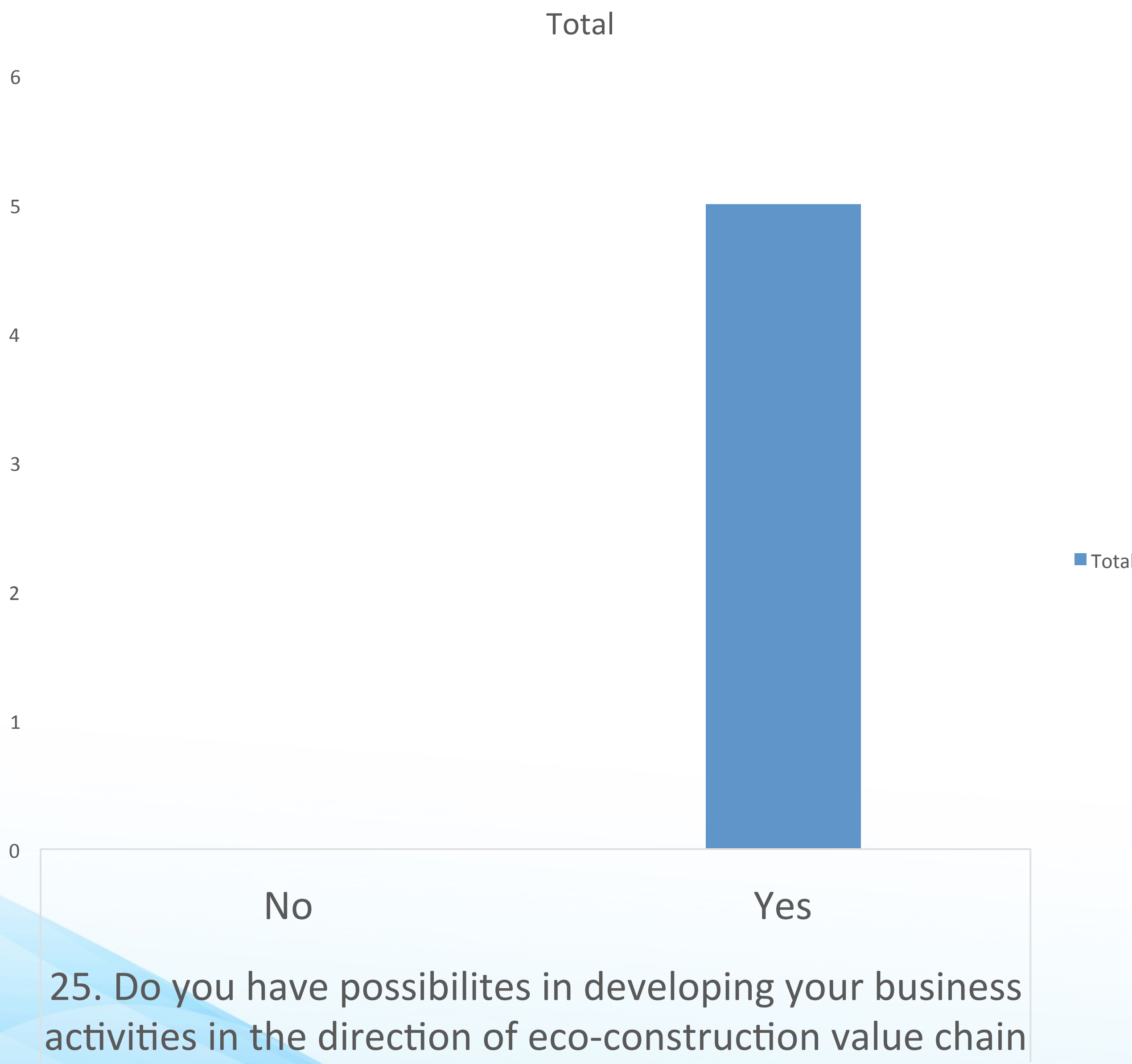
Future perspectives : Q18

Companies in Romania that produce some kind of products that are in the eco-construction value chain (Question 18): In Romania there are firms that produce some kind of products that are in the eco-construction value chain: house made of logs, prefabricated houses, insulation materials, certified wood flooring, and certified wooden roof constructions.



Future perspectives: Q25

Having possibilities to develop the business in the direction of eco-construction value chain (Question 25): There is a unanimous positive answer to this question, all the interviewed firms could develop in the direction of eco-construction value-chain.



Estimation of the potential of the Romanian market for eco-construction products in the next 5–10 years (Question 31):

The potential of the Romanian market for eco-construction products in the next 5–10 years is estimated to have a likely increase due to people being moderately interested (4 on a scale of 5 with 5 extremely interested) in eco-construction products (3/5).

Regional value chain narrative

- **Understanding of the term eco-construction** (Question 17): The term eco-construction is related more often to building using renewable materials (4/5) and materials non-harmful to the environment (3/5). Less often the term is related to building with wood material or resource efficient construction (2/5). Only one firm associated eco-construction to green building.
- **Are there any policies in Romania that support the companies' entering on the eco-construction market? If yes, name in which sector** (Question 26): Three firms are not aware of any such policies, while the other two are sure there are none.
- **Changes/improvements in the value chain to buy more source material in order to develop business activities toward eco-construction value chain (ECVC)?** (Question 30): Suggestions for changes/improvements in the value chain to buy more source material in order to develop business activities toward eco-construction value chain (ECVC): incentives and measures for bigger support of ECVC and expert and institutional push of ECVC at EU level (2/5); learning and accepting the importance of developing the ECVC and educating the customers for a better understanding of the health and environmental impact of some building materials (1/5).
- **From your point of view, what has to be done or changed on regional and EU policy level to push the eco-construction market on European level forward?** (Question 29): Suggestions for changes/improvements at regional and EU policy level to push the eco-construction market on European level forward: financial incentives and expert and institutional push of ECVC at EU level (2/5); boost up the popularity of ECVC and educating the customers (1/5).

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THANK YOU FOR YOUR ATTENTION

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