35th INTERNATIONAL COTTON CONFERENCE BREMEN 2021

REPORT + PRESENTATION

Session:

Cotton Quality & Testing 1 (T4)

Presentation Title:

Spinners Demands on Future Cotton Properties – Plus New: Retailers' Perspective. Bremen Surveys 2020/21

Speaker:

Axel Drieling, Fibre Institute Bremen (FIBRE), Bremen, Germany

Claudia Hagedorn, Bremen Cotton Exchange, Bremen, Germany

Presentations are available on the conference archive:

https://baumwollboerse.de/en/cotton-conference/lectures/

Conference Organization
Faserinstitut Bremen e.V., Bremen, Germany. E-Mail: conference@faserinstitut.de
Bremer Baumwollboerse, Bremen, Germany. E-Mail: info@baumwollboerse.de

Bremen Survey on Cotton Quality Demands 2020/21

Report for Respondents

This report presents the results of the second worldwide Bremen Survey on Cotton Quality Demands in 2020/21, after implementing the first survey in 2016/17. The survey was implemented by the Fibre Institute Bremen e.V. and the Bremen Cotton Exchange with the support of ITA Academy.

With this report, we thank all respondents for filling the survey questionnaire. We hope that you will participate in our future Cotton Quality Demands Surveys, too.

In sum, there were 249 qualified answers coming from more than 37 different countries. The highest number of respondents came from Europe (40), Brazil (39), East/Southeast Asia (except P.R. China) (26), India (24), Turkey, (22) USA (16), P.R. China (15), and Pakistan (12). The number of respondents clearly exceeds the number from 2016/17, which was 179.

The results from 2020/21 are fitting very well to those from 2016/17, which shows the reliability of the findings. Major changes from 2016/17 to 2020/21 will be mentioned below.

The focus of the respondents is in spinning – with 72% of respondents coming from spinning or spinning machinery industry, but respondents from other steps of the cotton value added chain from trading to retailer were included, too. → Figure 1

The daily yarn production of the responding spinning mills covered the complete range from less than 10 tons to more than 100 tons per day, and from less than 100 to more than 5000 employees. → Figure 2

Ring spinning was the technology most widely used by respondents, followed by rotor, compact ring and air jet spinning. But even 41 respondents (27%) are using airjet spinning. → Figure 3

The respondents cover the complete range of yarn counts with a focus on Nm 25 to 50 / Ne 15 to 30. → Figure 4

Nearly all respondents are processing cotton. Second most importance is given to Polyester and cellulosic fibres. It is interesting that the number of answers for cellulosic is nearly as high as for Polyester, although its market share is much smaller. All other fibres got less than 15% of answers. → Figure 5

"Tenacity", "Neps, thick/thin places" and "Evenness" were by far the most important yarn qualities mentioned, followed by elongation, hairiness and dyeability. Fibres must be able to contribute to these yarn properties. → Figure 6

"Fibre Characteristics" and "Consistent Quality" were the main selection criteria in the procurement of cotton, followed by "Availability" and "Price" which were of almost similarly

high importance. Sustainability and customer preference are for this choice least important.
→ Figure 7 a to d

Nearly 40 % of the respondents produce solely pure cotton yarns. For blending, polyester is the most widely used material (59%), followed by cellulosic fibres and Elasthane/Spandex.
→ Figure 8

Blending is usually done in response to market requirements and / or in order to provide certain properties of the yarn / the fabric and interestingly to less extend for reducing the costs.
→ Figure 9

In some of the following questions, we asked for the specific cotton properties. The property groups and single properties for choice are given in → figure 10.

For cotton properties, most participants marked strength/tenacity, short fibre content, micronaire and maturity as a defect or deficiencies of cotton fibres that affect yarn properties. But also staple length, length uniformity, stickiness, leaf / trash amount, yellowness, elongation, foreign matter, seed coat fragments and neps received more than 50 % of responses. It is interesting to see that short fibre content is voted much more as a deficiency than staple length. The importance of elongation seems to increase from 2016/17 to 2020/21. For cross-sectional properties, maturity is more important than fineness, but both increased from 2016/17 to 2020/21, whereas leaf lost importance. → Figure 11

High tenacity is seen as the most valuable characteristic of a man-made fibre, followed by high elongation. These are followed by low shrinkage and water absorbency. → Figure 12

Polyester and and cellulosic fibres are considered to directly compete the most with cotton. In 2020/21, cellulosic fibres have gained significantly in importance and have overtaken Polyester, which decreased. → Figure 13

Respondents believe that the segment of blended fibres will further grow in future, especially cotton blends with Polyester, followed by cotton with cellulosic fibres. The percentage of cotton in blends will be stable. → Figure 14 a to b

For improving ONE cotton property by at least 30%, most answers were given for length related properties. Most important here is the short fibre content, followed by length uniformity (and not staple length). This is followed with by far less answers by strength related properties (mainly strength itself), contaminants (mainly foreign matter and stickiness). Fineness related properties. → Figure 15

Looking at Cotton Identity Programs, 2/3 of the answers by respondents specify to source cotton from the BCI, followed by organic/GOTS with 41%. Compared to 2016/17, BCI increased, whereas organic cotton decreased slightly. In addition, Cotton Leads and US Cotton Trust Protocol gained importance, but on a lower level. → Figure 16

Sustainability, final customers' trust and marketing related aspects and were the main reasons mentioned as advantages of such programs, more than a possible price premium.
→ Figure 17

The major constraint for cotton from Identity Programs was the costs, followed by availability of specific qualities and dependency on suppliers. → Figure 18

Additional need for traceability / certification programs is mainly seen for origin/authenticity (61%) and social responsibility (52%). → Figure 19

Thank you very much for participating in this survey.

In addition to this survey, the Bremen Cotton Exchange conducted a separate Retailer Survey, focusing on German retailers/brands, which gives more information from the end of the cotton value added chain. If you are interested in this, please contact the Bremen Cotton Exchange (see below).

If you have any questions, please contact:

Faserinstitut Bremen e.V. / Bremen Fibre Institute
Mr Axel Drieling, phone +49-421-218-58650, e-mail drieling@faserinstitut.de

Bremer Baumwollbörse / Bremen Cotton Exchange
Mr Karsten Fröse, phone +49-421-3397018, e-mail froese@baumwollboerse.de
Ms Claudia Hagedorn, phone +49-421-3397015, e-mail hagedorn@baumwollboerse.de

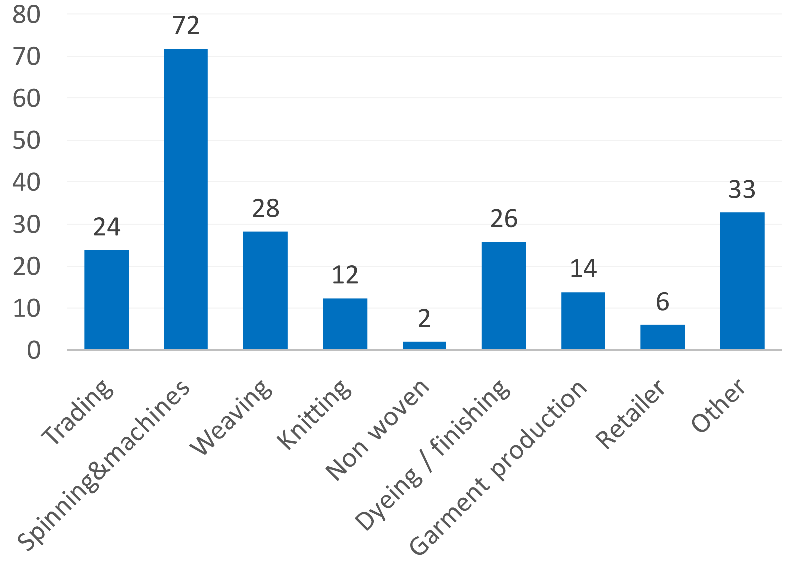


Fig. 1: Company activities [multiple answers; % of respondents]

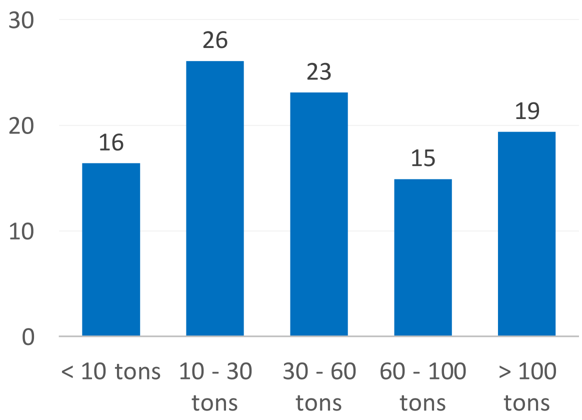


Fig. 2: Daily yarn production [% of respondents]

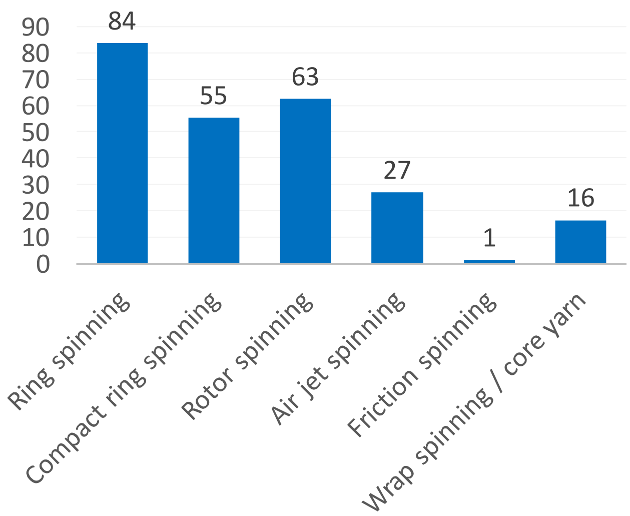


Fig. 3: Spinning technology of the respondents [mult.; % of respondents]

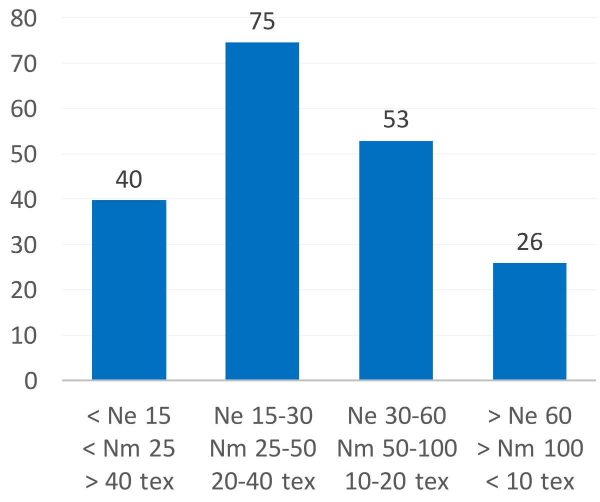


Fig. 4: Produced yarn counts of the respondents [mult.; % of respondents}

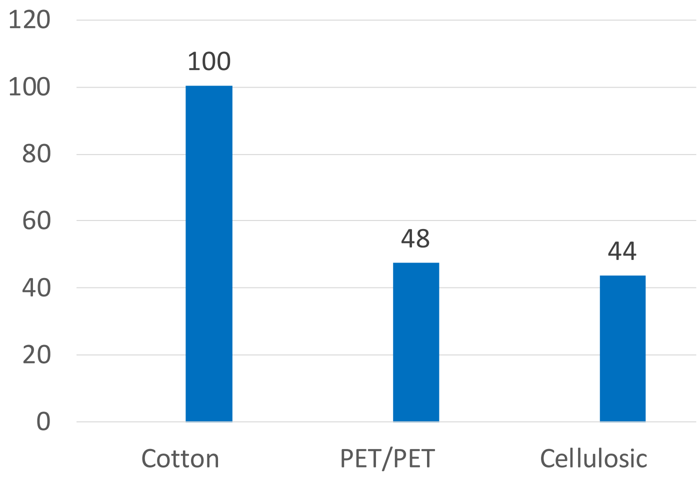


Fig. 5: Processed fibre materials [mult.; % of respondents]

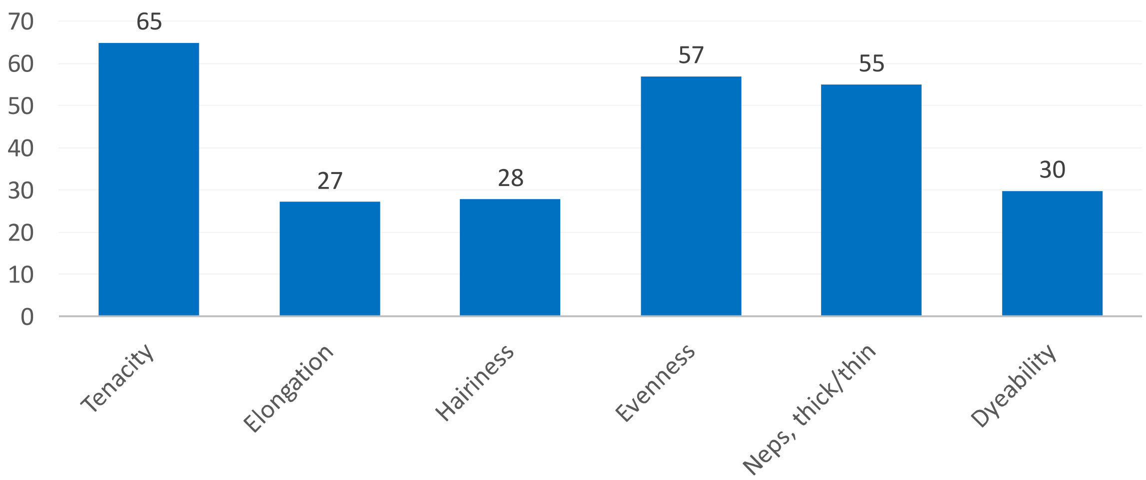


Fig. 6: Important yarn properties [<=3 answers; % of respondents]

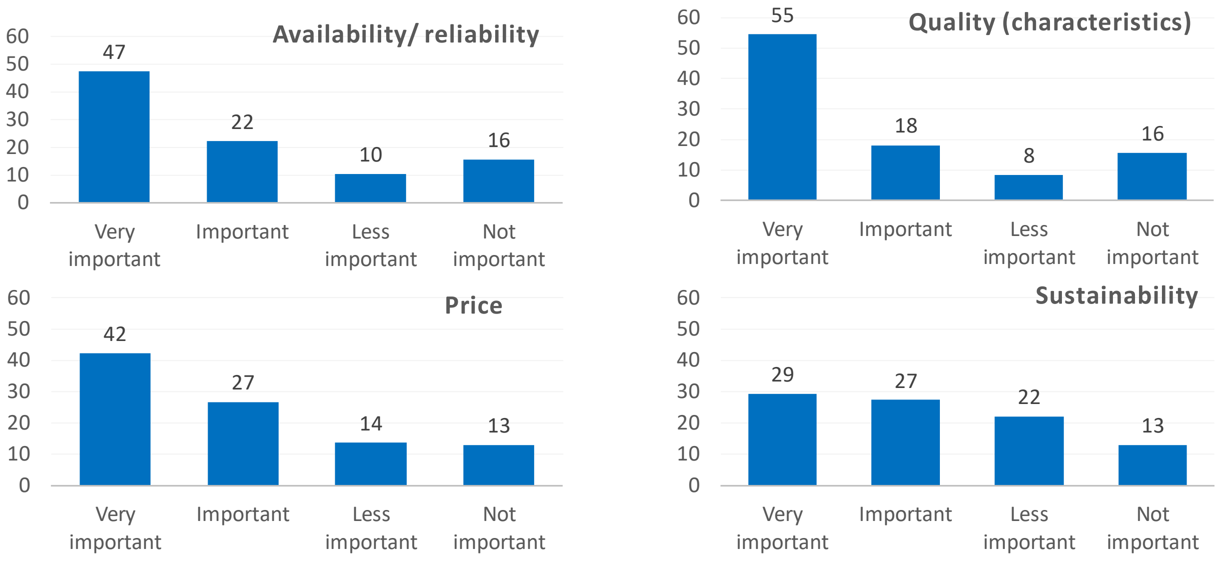


Fig. 7: Reasons for choosing specific cotton sources [% of respondents]

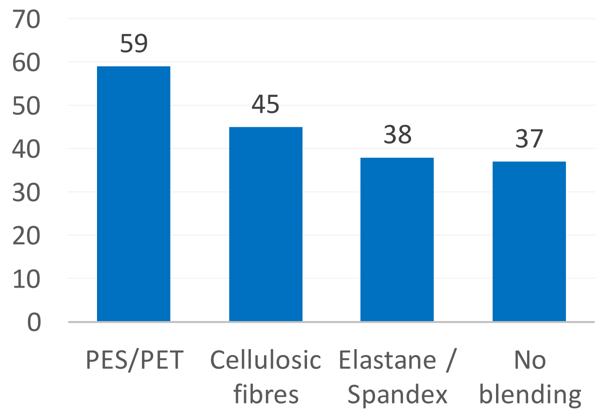


Fig. 8: Fibres which are blended with cotton [<=3 answers, % of respondents]

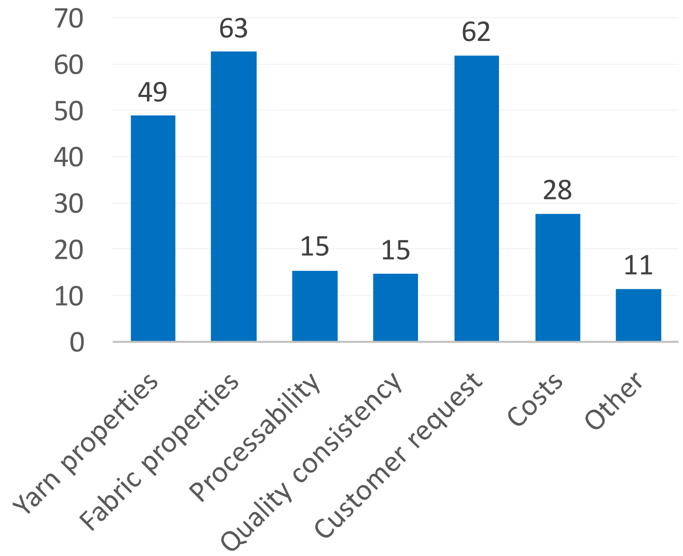


Fig. 9: Reasons for blending cotton [mult.; % of respondents]

- **Fineness related properties**
  - Micronaire
  - Fineness
  - Maturity
- **Length related properties**
  - UHML / UQL / Staple length
  - Average / mean length
  - Uniformity / Length CV%
  - Short fibre content / SFI
- **Strength related properties**
  - Strength/Tenacity
  - Elongation
  - Work to break (*)
- **Colour**
  - Reflectance (Rd)
  - Yellowness (+b)
  - UV stability
- **Trash**
  - Leaf / trash amount
  - Leaf / trash size
  - Bark / grass content
- **Other contaminants**
  - Stickiness
  - Neps / twists / knots
  - Seed coat fragments
  - Dust
  - Odour
  - Fungal infestation
  - Foreign matter (*)
- **Others**

Figure 10: Choice of cotton properties; property groups and single properties

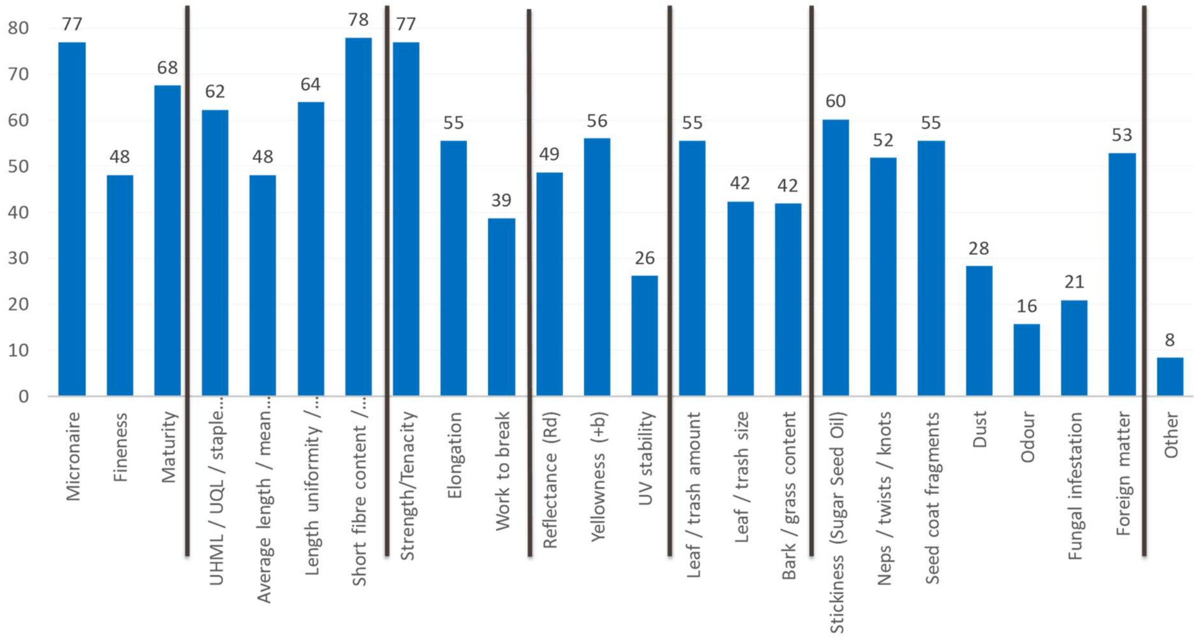


Figure 11: Deficiencies of cotton fibres [mult.; % of respondents]

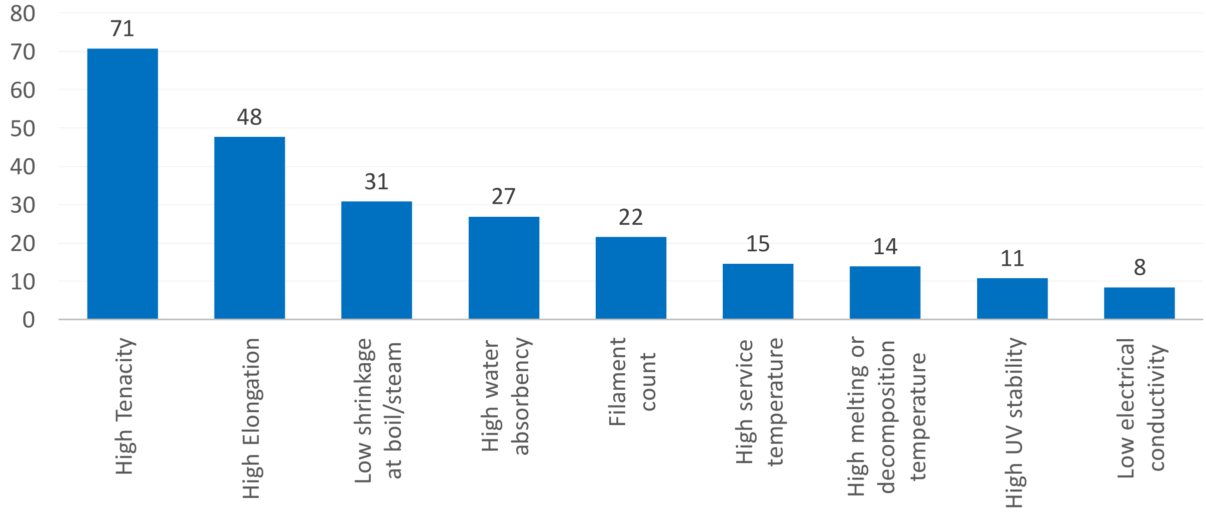


Fig. 12: Most important properties of man-made fibres [<=3 answers; % of respondents]

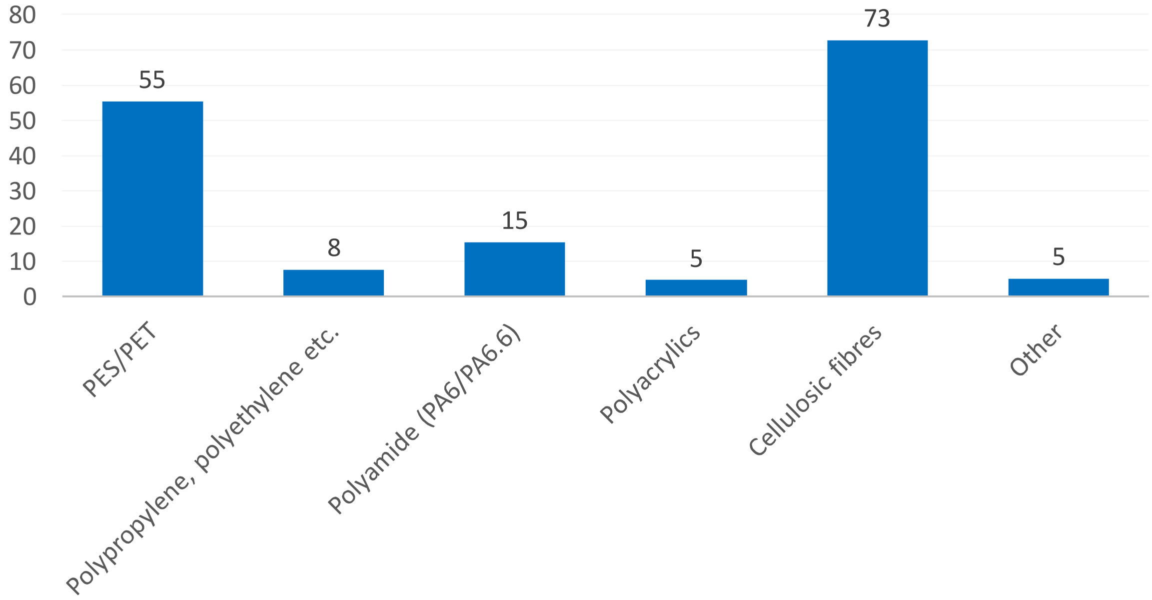


Fig. 13: Fibres in competition with cotton in future [<=3 answers; % of respondents]

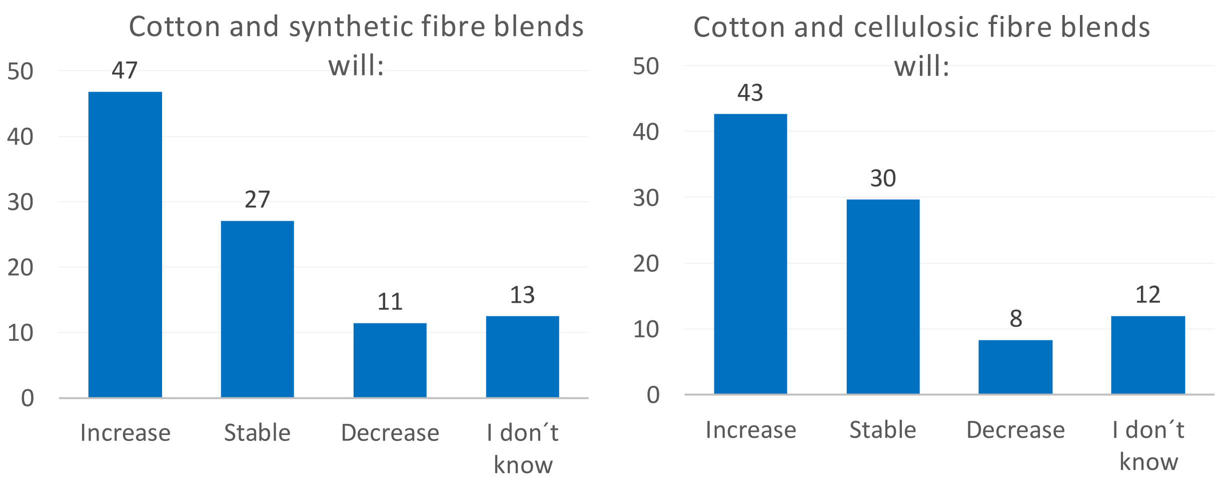


Fig. 14: Trends for cotton use [% of respondents]

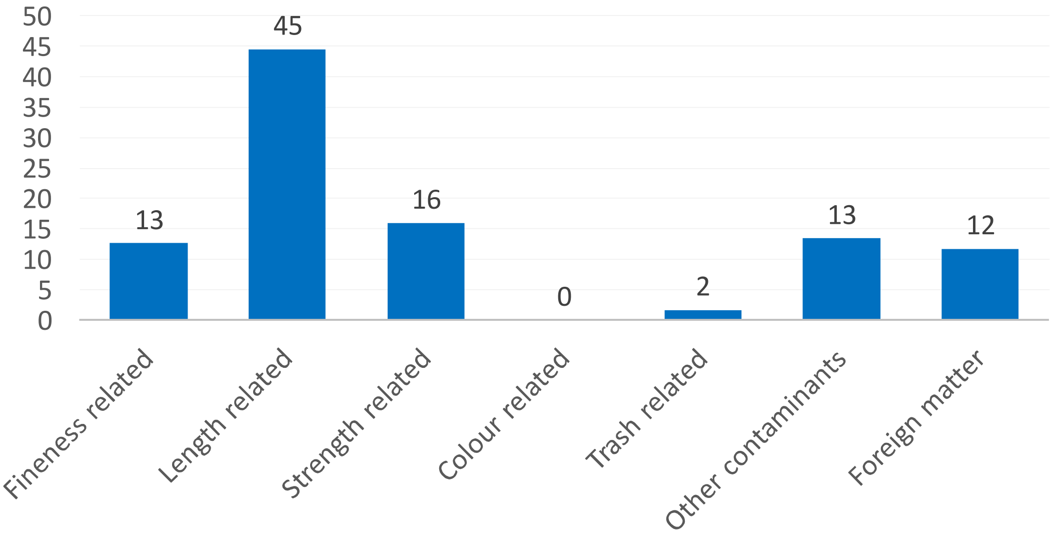


Fig. 15: If one property could be improved, which one should [1 answer; % of respondents]

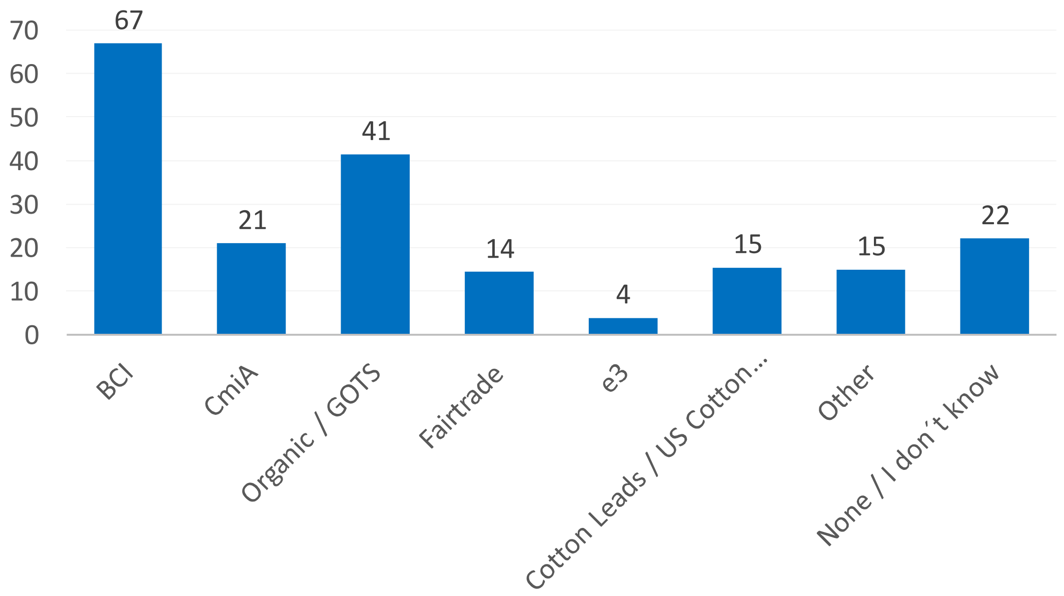


Fig. 16: Cotton Identity Programs used by the respondents [mult; % of respondents]

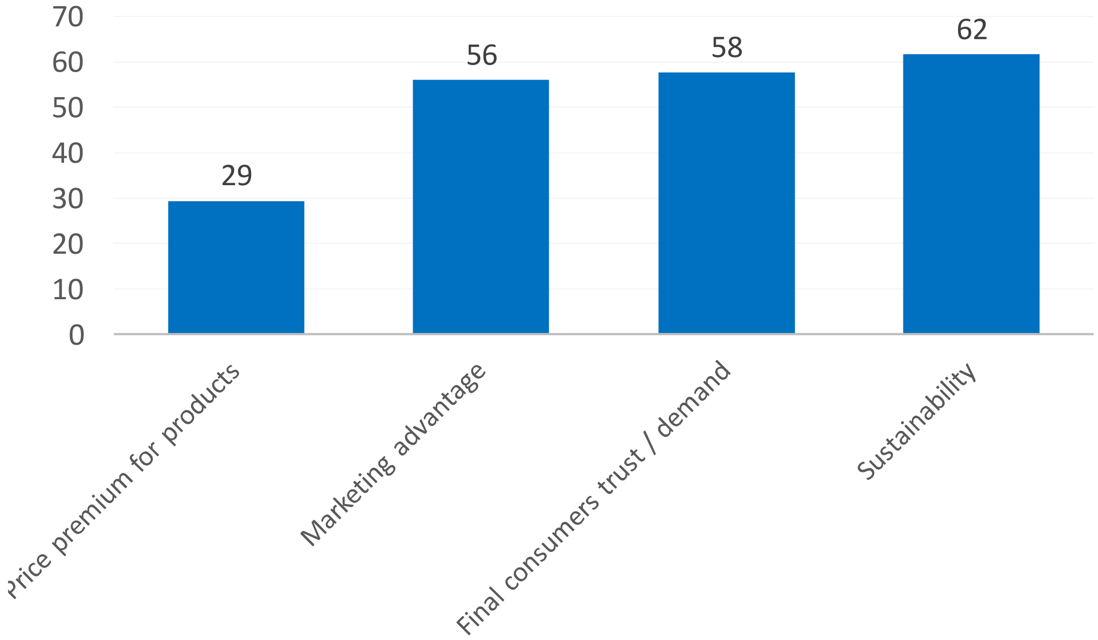


Fig. 17: Benefits of the Cotton Identity Programs [mult.; % of respondents]

Spinners Demands on Future Cotton Properties.
Plus new: Retailers' Perspective

BREMEN SURVEYS 2020/21

Axel Drieling	Faserinstitut Bremen e.V.
Karsten Fröse	Bremer Baumwollbörse
Claudia Hagedorn	Bremer Baumwollbörse

March 18, 2021

INTRODUCTION

Bremen Survey on Cotton Quality Demands 2020/21 "SPINNERS SURVEY"

- Focus / Questions
  - Mainly on cotton quality
  - Additionally on Cotton Identity Programs
- 2nd implementation in 2020/21
  - *1st implementation in 2016/2017*
- Worldwide
- Implemented by
  - Faserinstitut Bremen eV.
  - Bremer Baumwollboerse
  - ITA Academy

Bremen Retail/Brand Survey 2020/21 "RETAIL SURVEY"

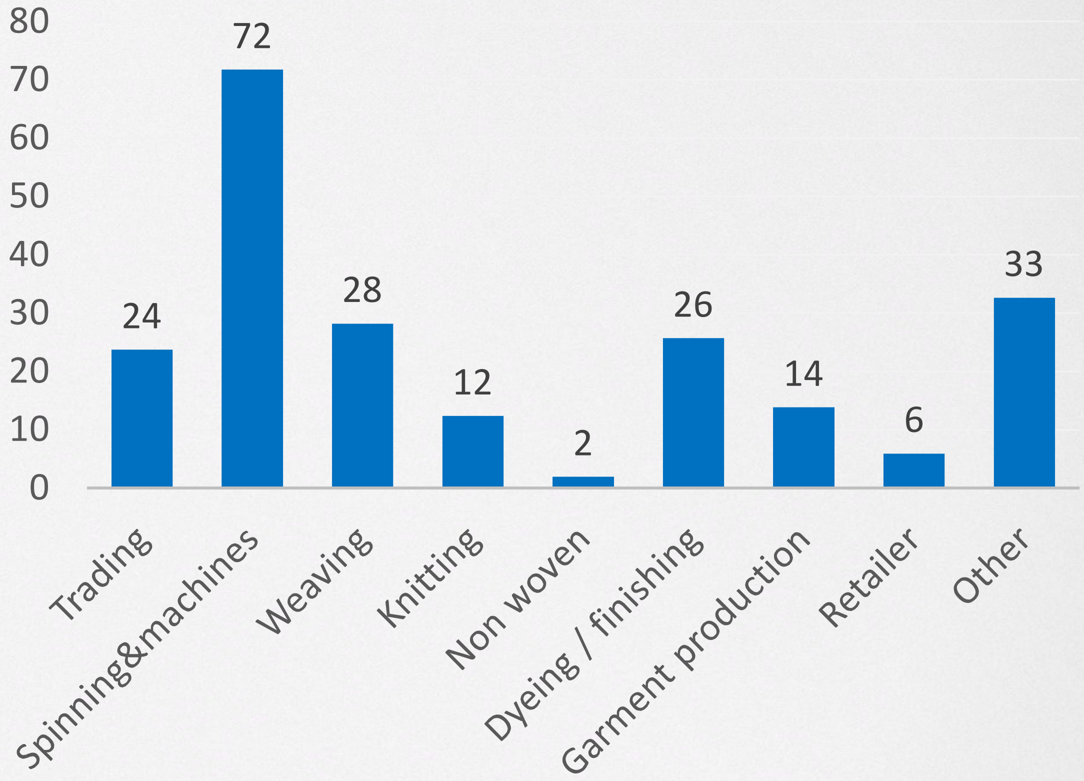
- Focus / Questions
  - Cotton Quality
  - Sustainability
  - Supply Chain Transparency
- 1st implementation 2020/21

- Focus on German Retail/Brands
- Implemented by
  - Bremer Baumwollboerse

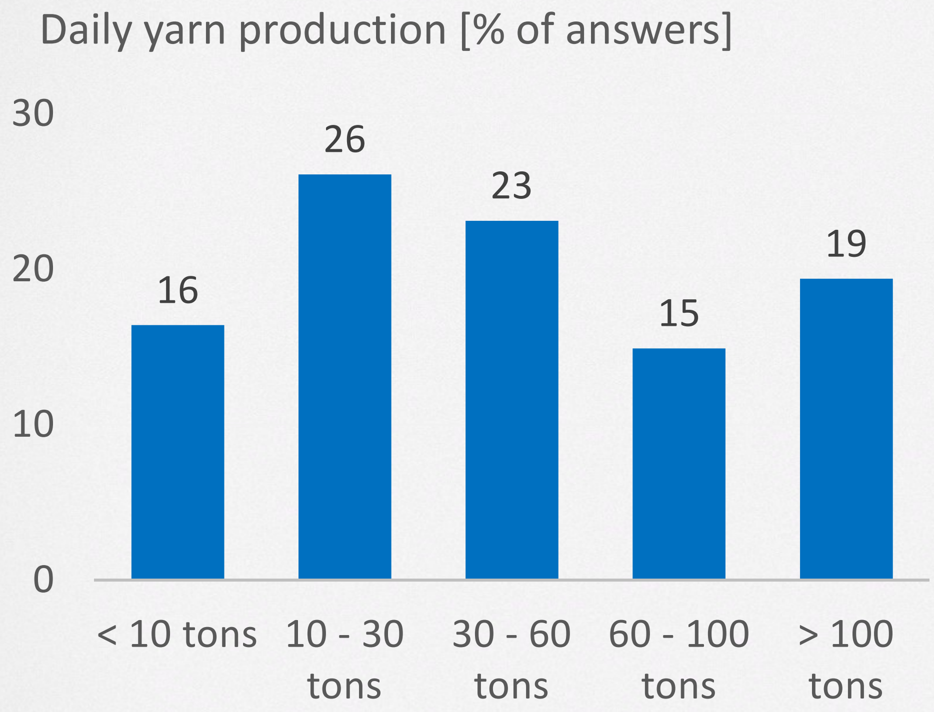
SPINNERS SURVEY: RESPONDENTS

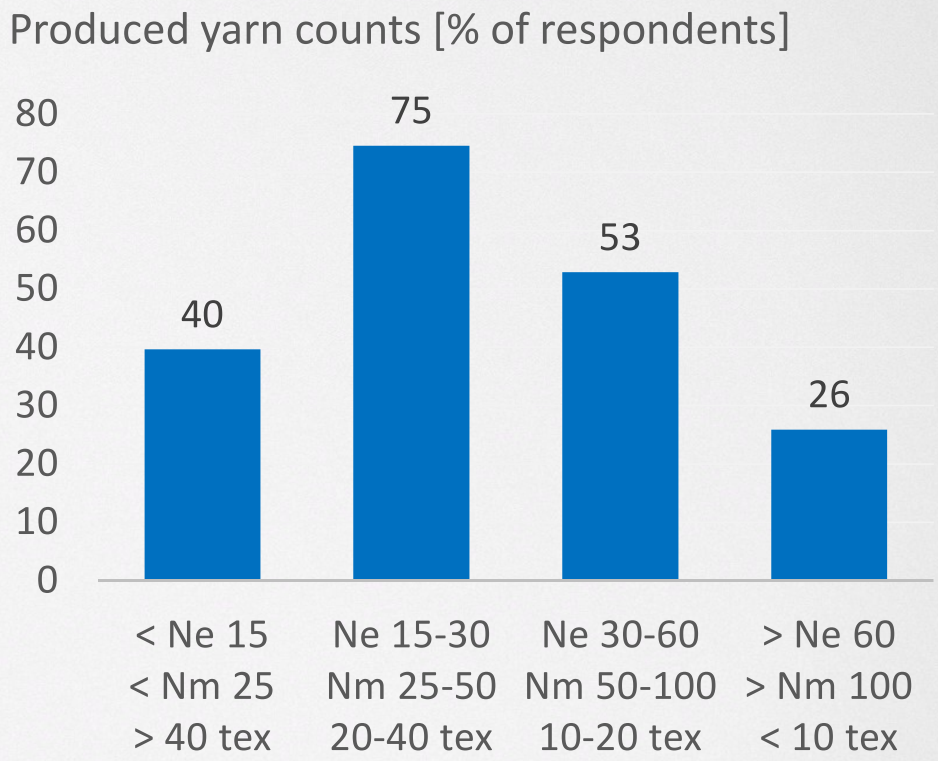
- Respondents 2020/21: 249
  - *Respondents 2016/17: 179*
- Countries / Regions
  - Europe 40
  - Brazil 39
  - East Asia 26
  - India 24
  - Turkey 22
  - USA 16
  - China 15
  - Pakistan 12
  - Other 55

Company activities [multiple answers, % of respondents]

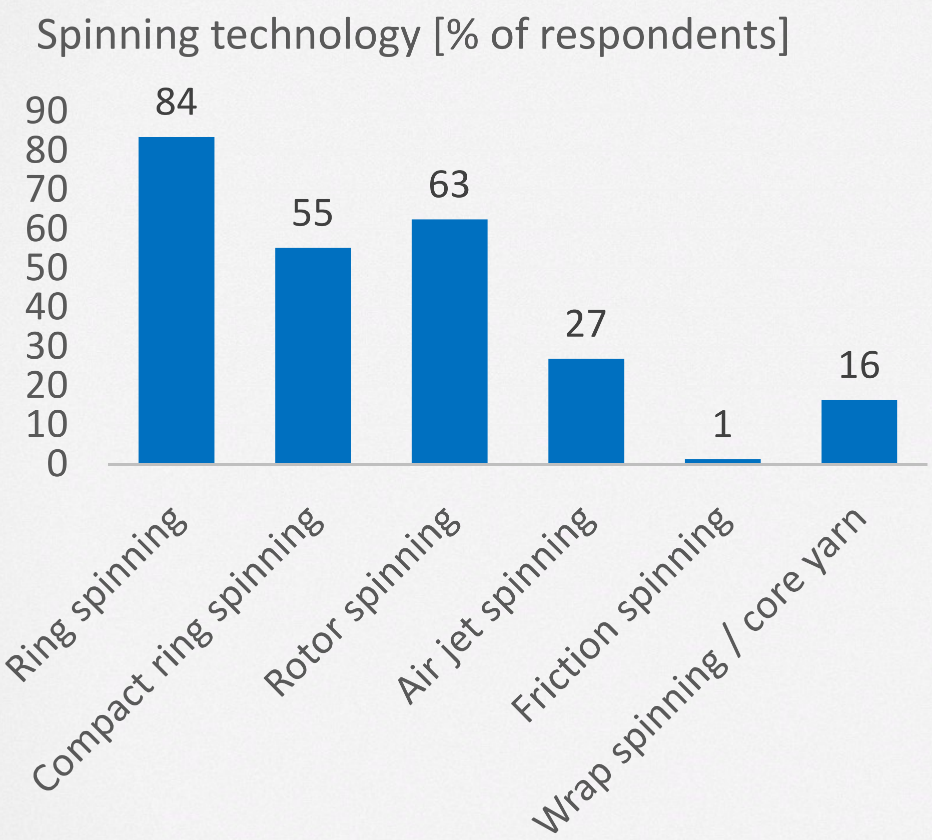


SPINNERS SURVEY: RESPONDENTS

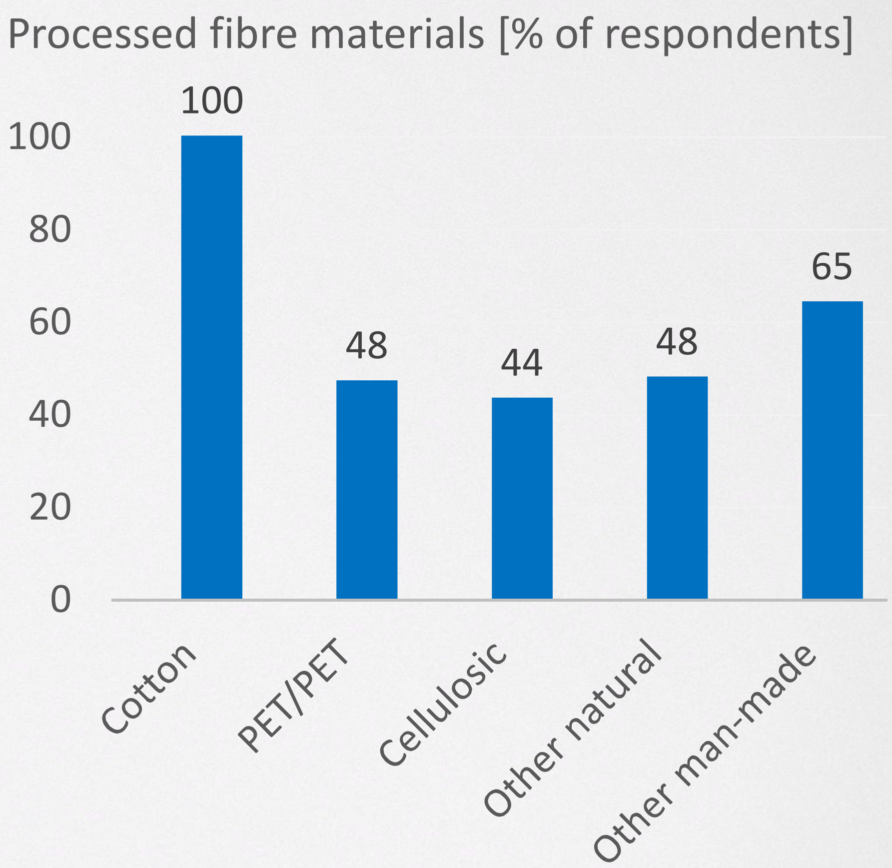




SPINNERS SURVEY: RESPONDENTS - TECHNOLOGIES AND MATERIAL



2016/17:
87% 55% 55% 17%

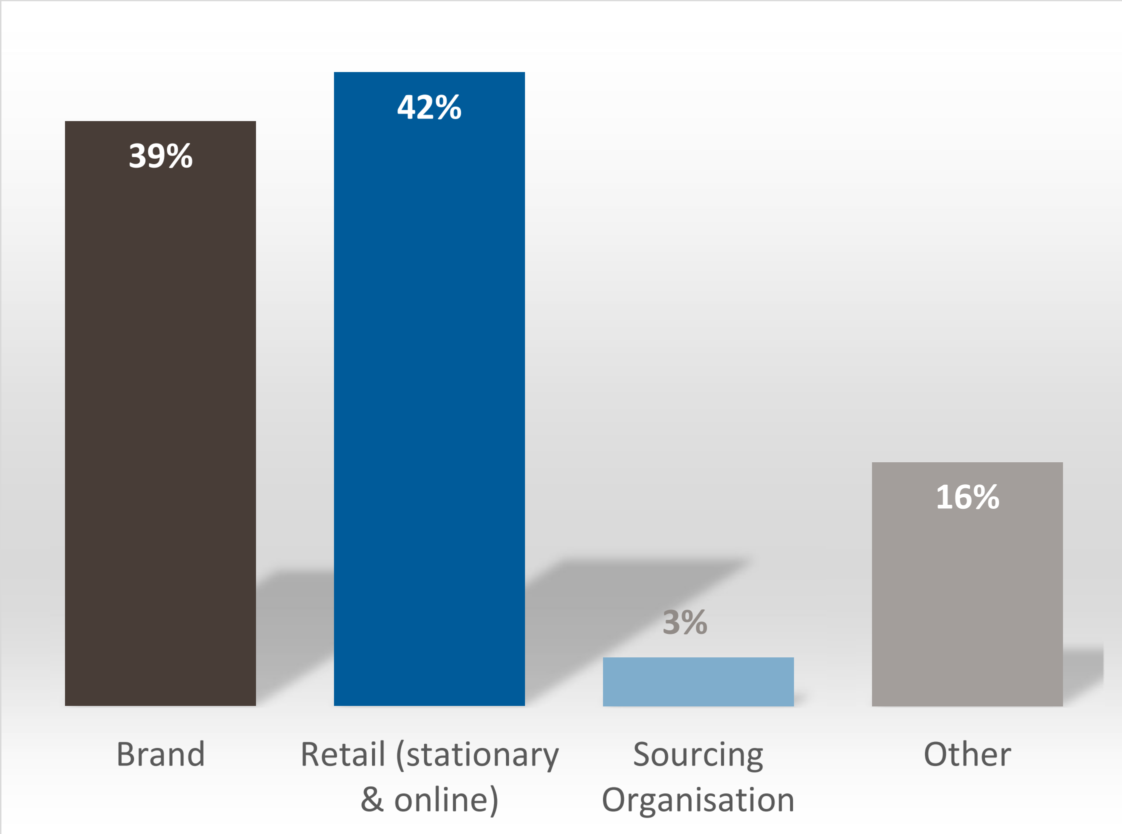


2016/17:
98% 49% 45%

RETAIL SURVEY: RESPONDENTS

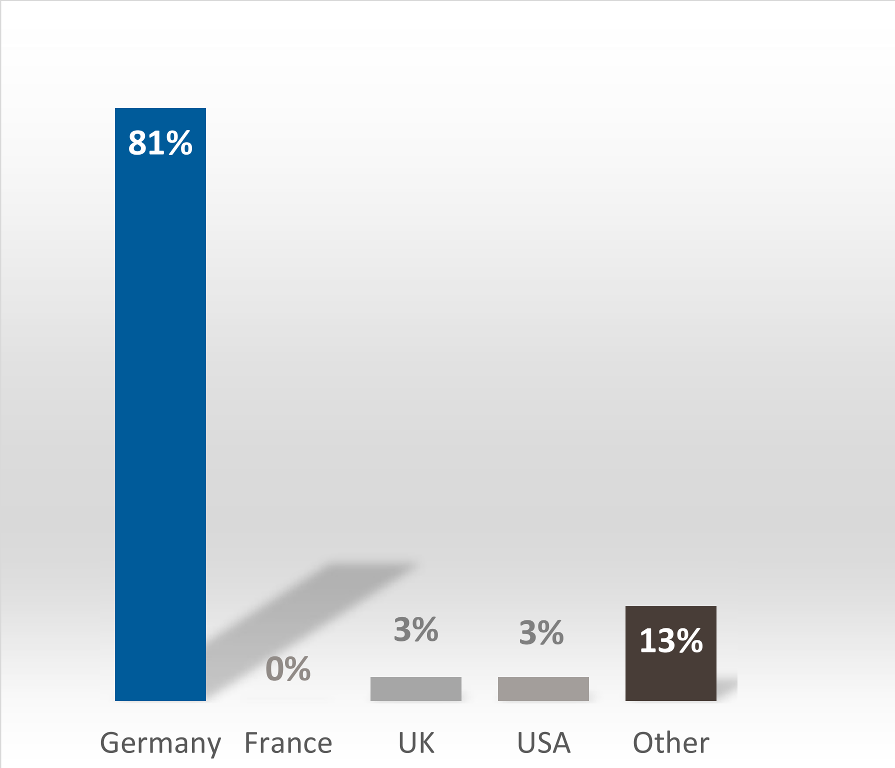
31 ANSWERS FROM
24 COMPANIES:

BIEDERLACK
BONPRIX
CAMP DAVID
FRUIT OF THE LOOM
JEANS FRITZ
KIK
OLYMP
ORSAY
OTTO
SEIDENSTICKER
S.OLIVER
TCHIBO
TOM TAILOR
WASCHBÄR
WITT WEIDEN
….AND MORE

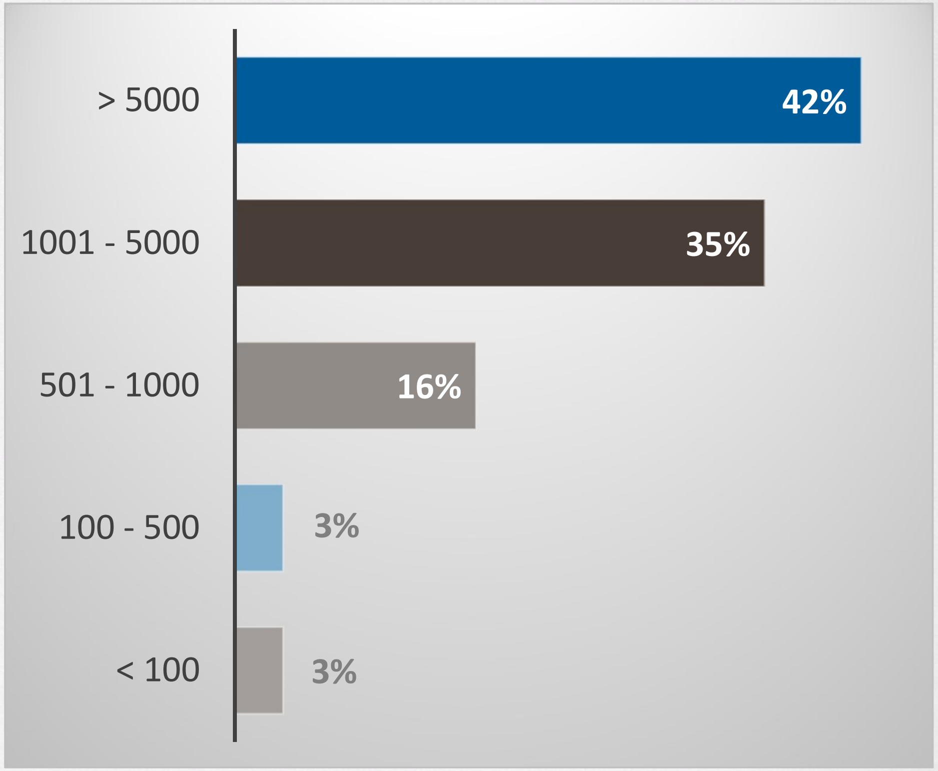


RETAIL SURVEY: RESPONDENTS

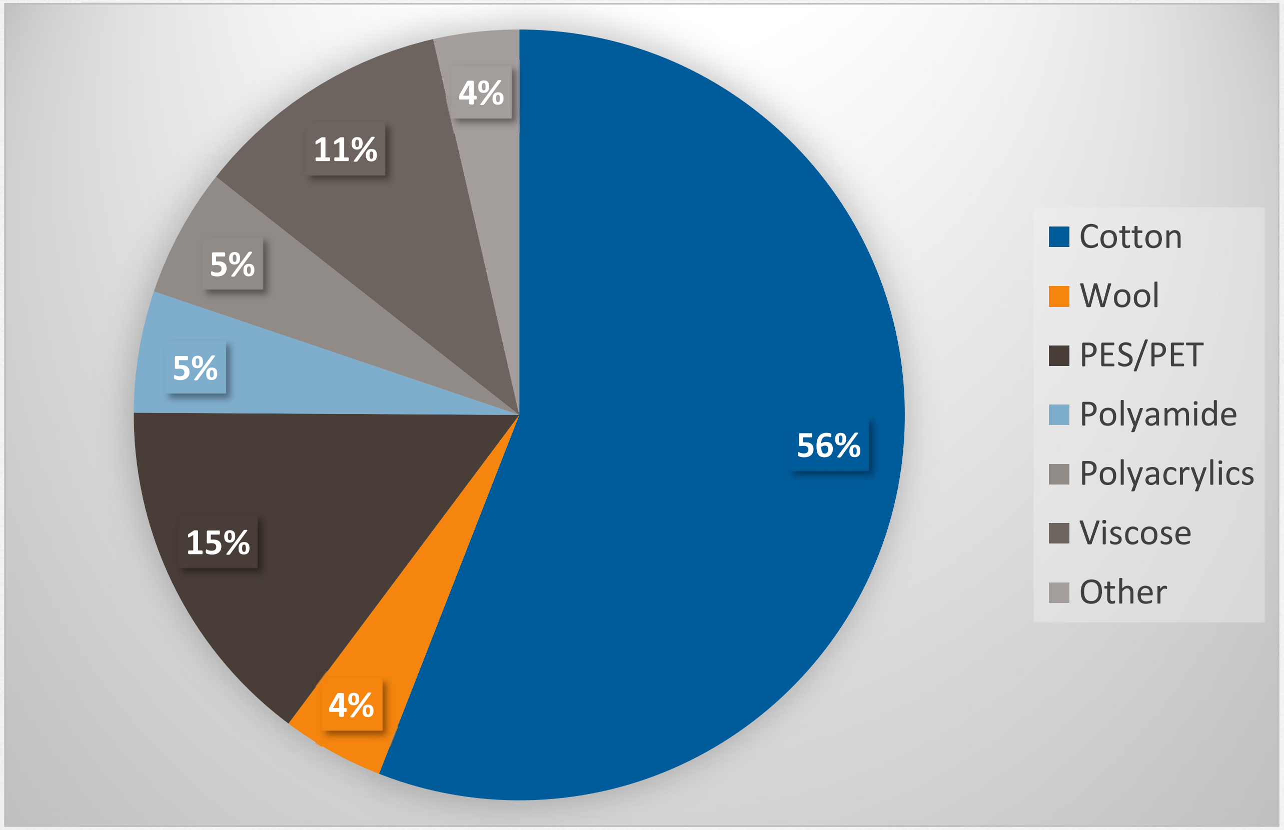
Country:



Number of employees:



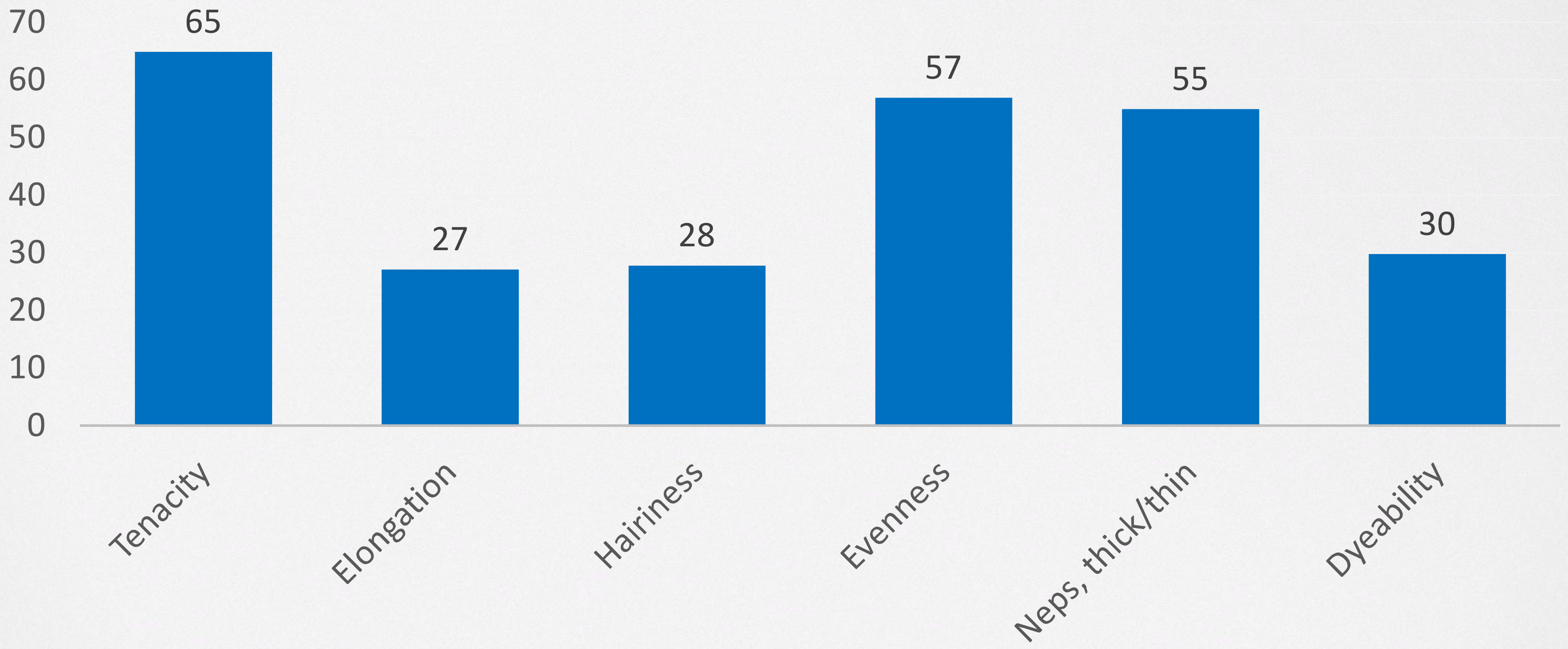
RETAIL SURVEY: MAIN USE OF FABRICS AND SHARE



Average based on 26 answers

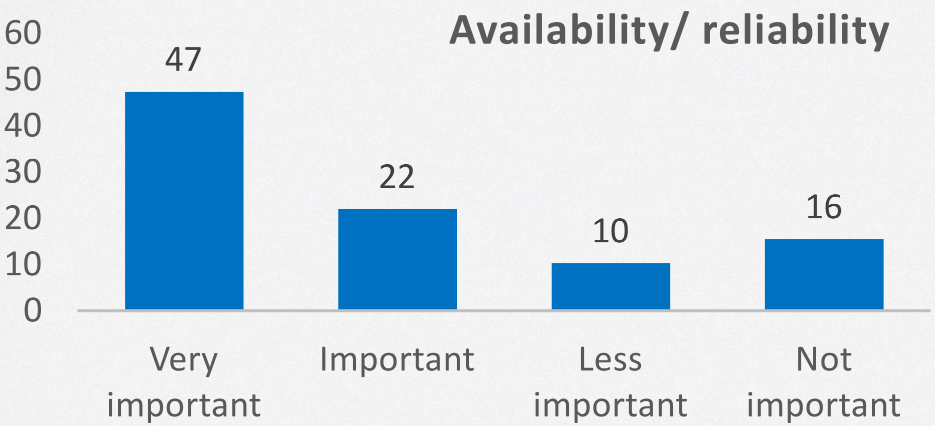
SPINNERS SURVEY: MOST IMPORTANT YARN PROPERTIES

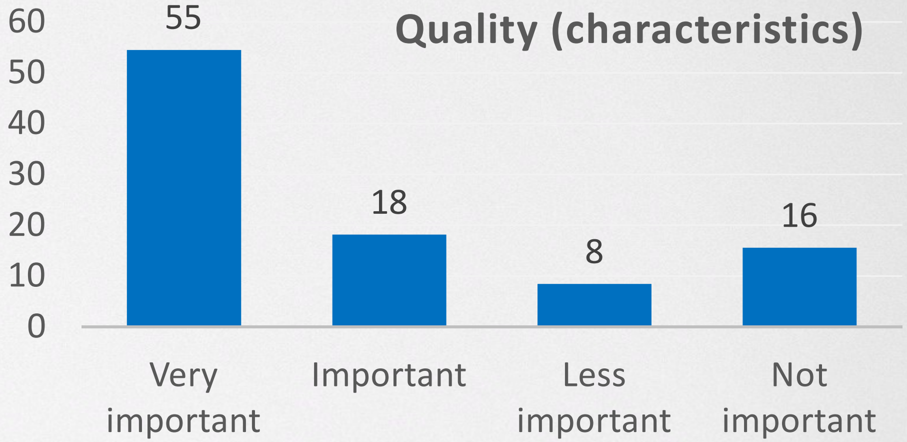
Important yarn properties [up to 3 answers; % of respondents]

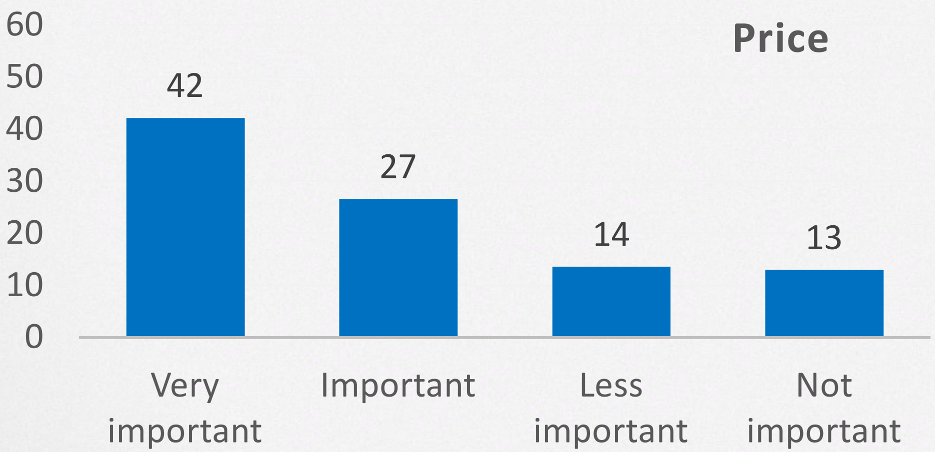


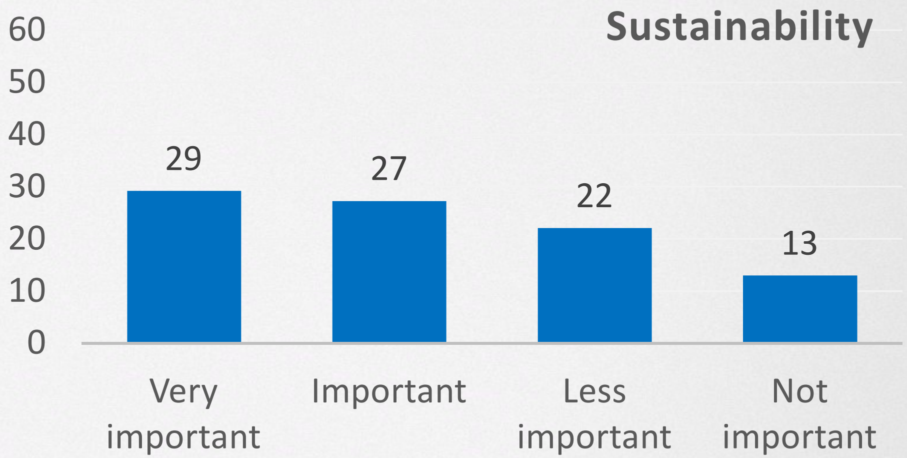
2016/17:
72% 18% 26% 61% 70% 24%

SPINNERS SURVEY:
REASONS FOR CHOOSING SPECIFIC COTTON SOURCES



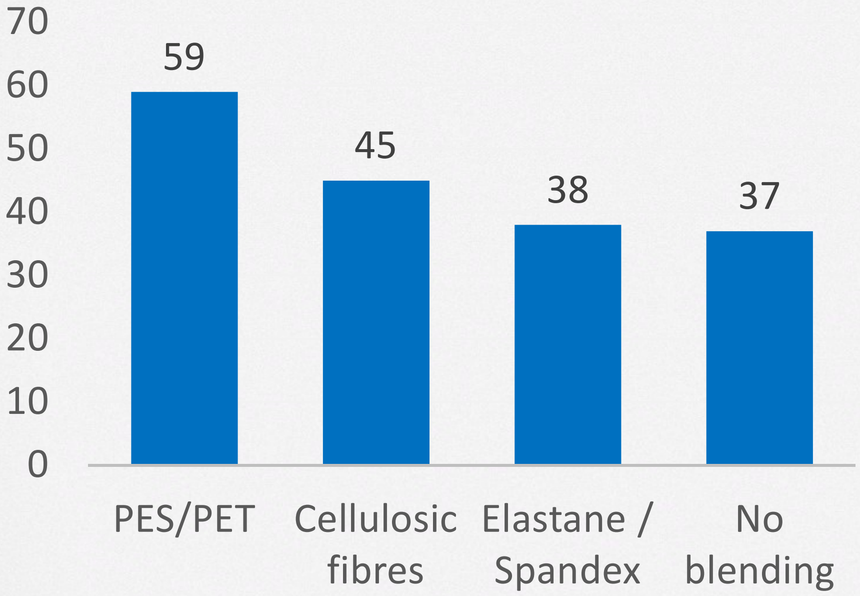




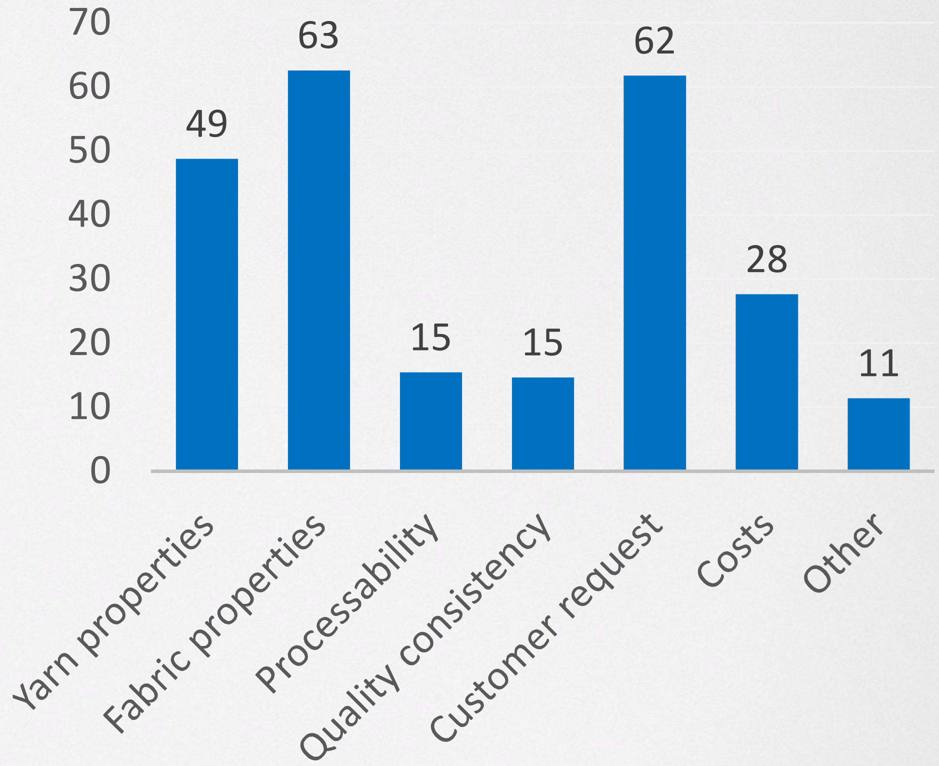


SPINNERS SURVEY: USE OF COTTON BLENDS AND REASONS

Fibres which are blended with cotton [% of respondents]



Reasons for blending cotton [3 answers, % of respondents]

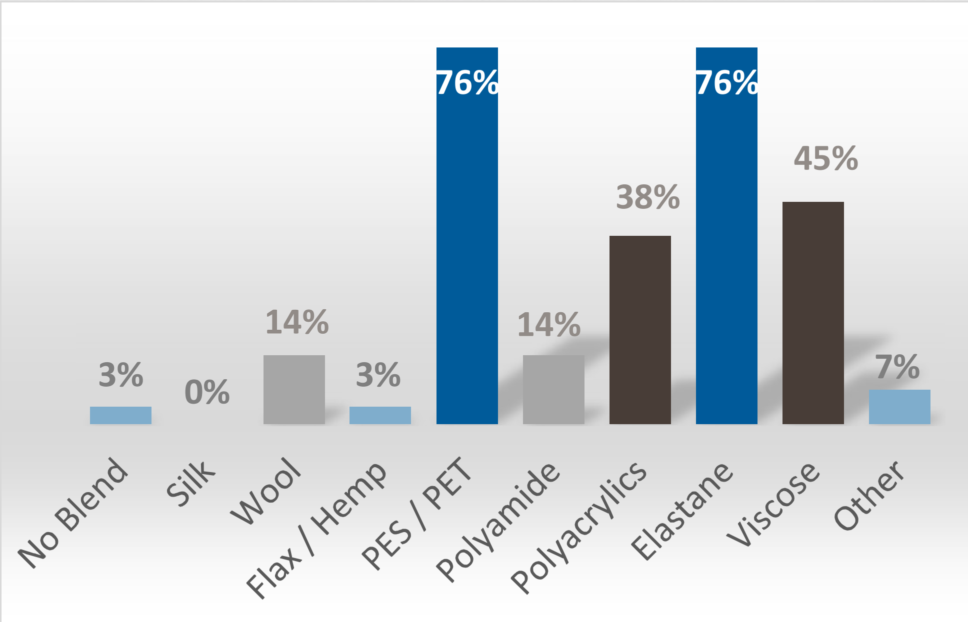


2016/17:
57% 44%

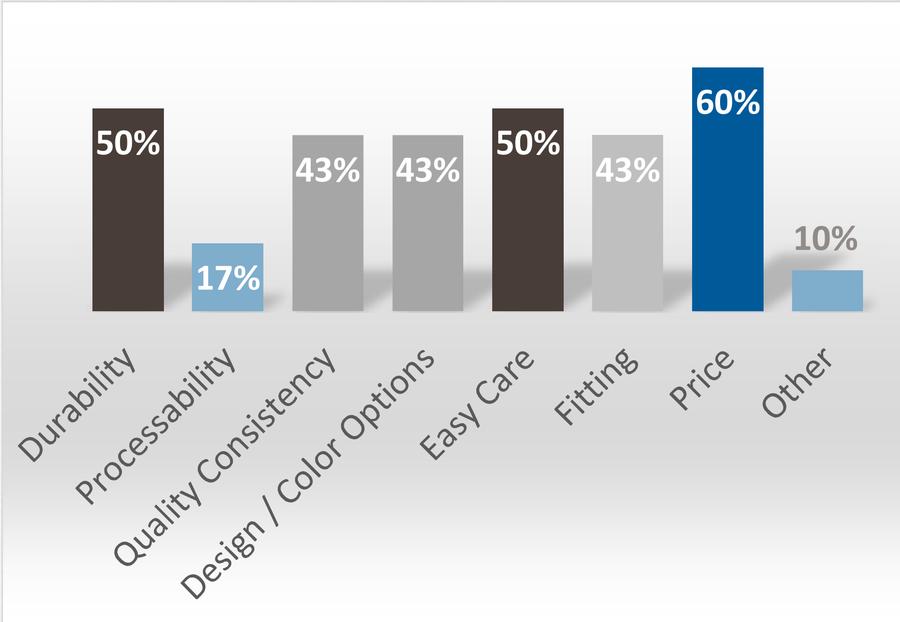
2016/17:
46% 56% 76% 35%

RETAIL SURVEY: USE OF COTTON BLENDS AND REASONS

Which blends:



What reasons:



Multiple answers / % of respondents

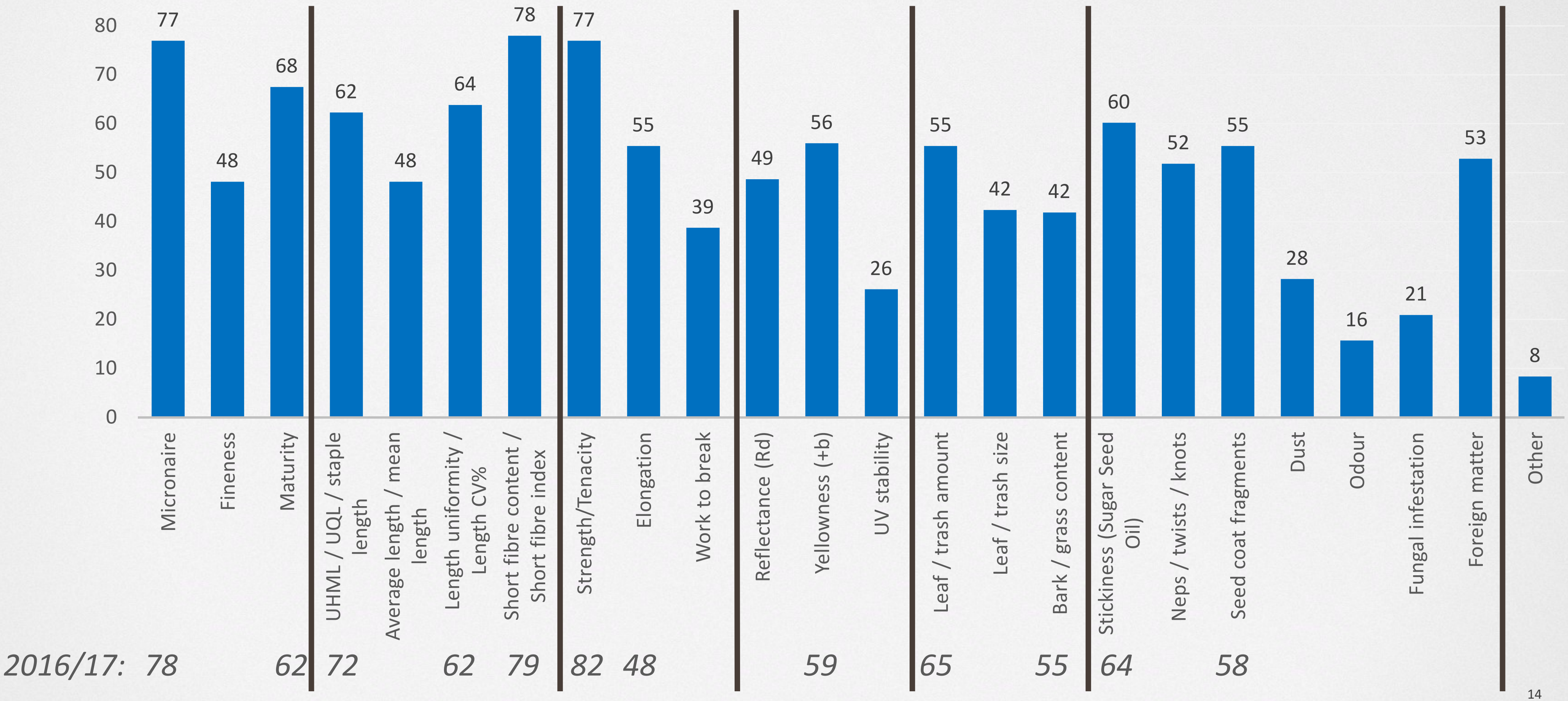
SPINNERS SURVEY: COTTON PROPERTIES FOR CHOICE

- **Fineness related properties**
  - Micronaire
  - Fineness
  - Maturity
- **Length related properties**
  - UHML / UQL / Staple length
  - Average / mean length
  - Uniformity / Length CV%
  - Short fibre content / SFI
- **Strength related properties**
  - Strength/Tenacity
  - Elongation
  - Work to break (*)
- **Colour**
  - Reflectance (Rd)
  - Yellowness (+b)
  - UV stability
- **Trash**
  - Leaf / trash amount
  - Leaf / trash size
  - Bark / grass content
- **Other contaminants**
  - Stickiness
  - Neps / twists / knots
  - Seed coat fragments
  - Dust
  - Odour
  - Fungal infestation
  - Foreign matter (*)
- **Others**

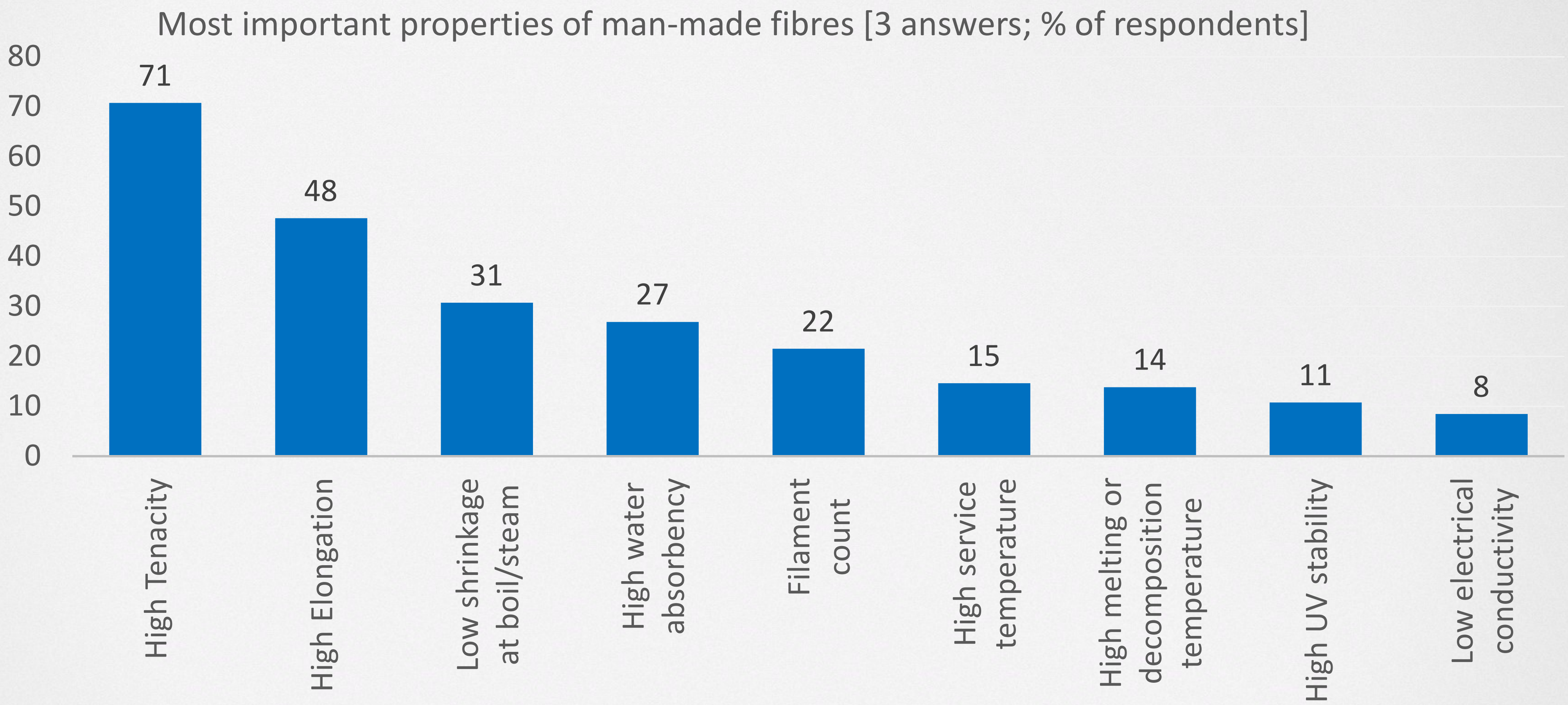
(*) : added in 2020/21

SPINNERS SURVEY: DEFICIENCIES OF COTTON THAT AFFECT YARN

Deficiencies of cotton fibres [Multiple answers; % of respondents]

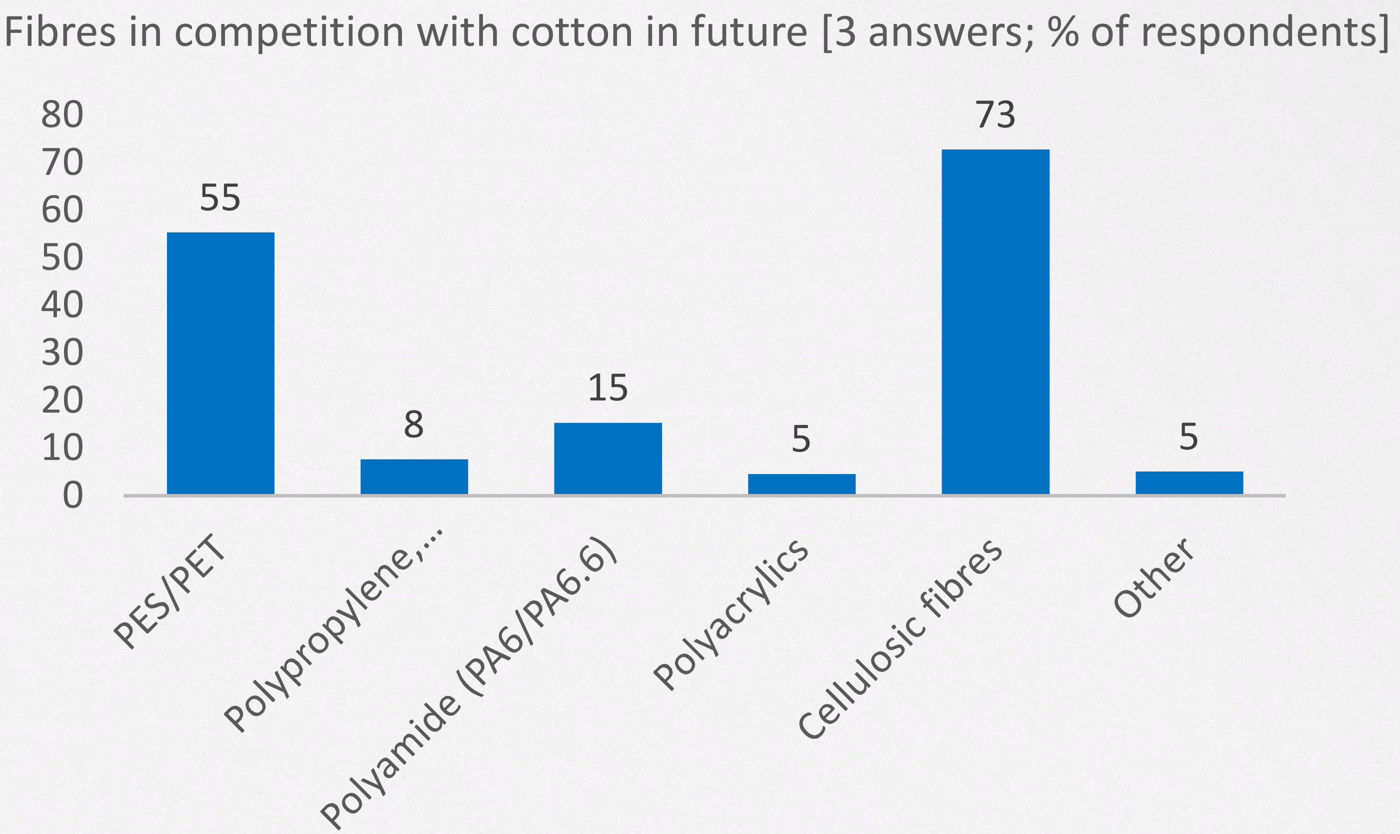


SPINNERS SURVEY: VIEW TO MAN-MADE FIBRES



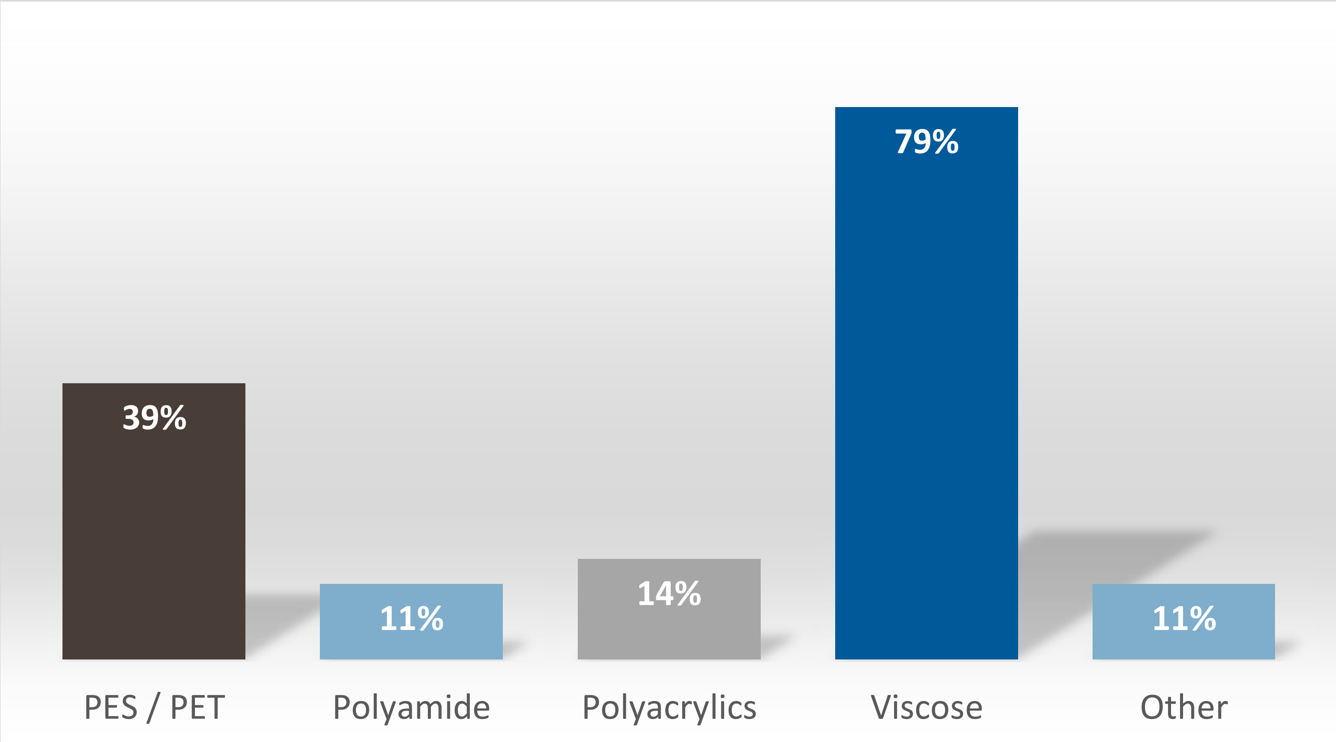
2016/17: 91 46 35 21 17 11 11 23 7

SPINNERS SURVEY: MAN-MADE FIBRES IN COMPETITION TO COTTON



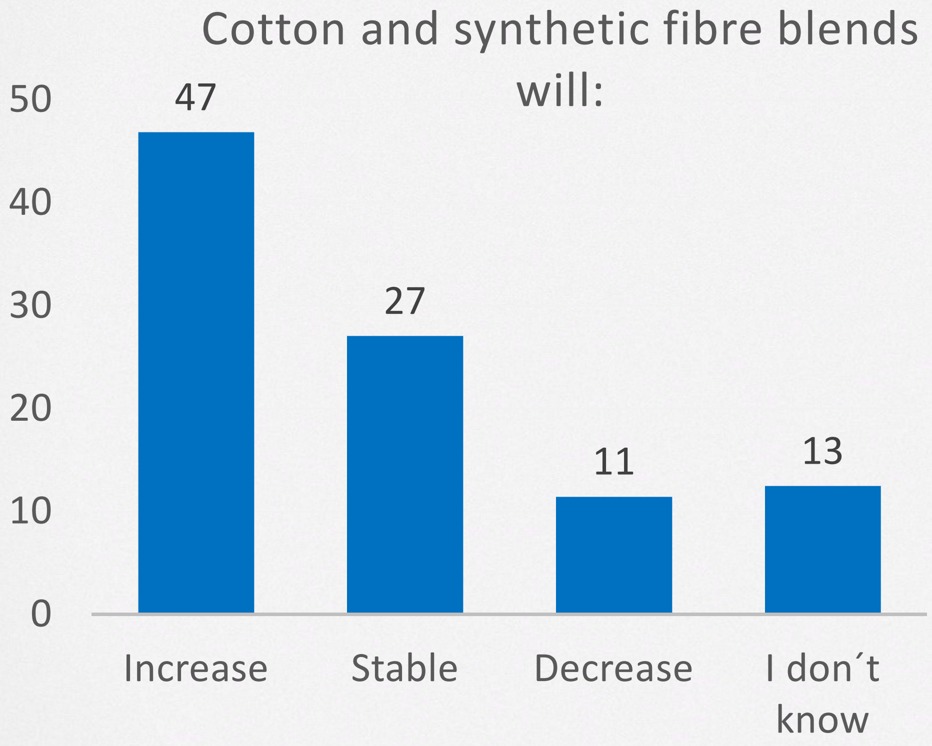
2016/17: 75% 63%

RETAIL SURVEY:
WHICH MAN MADE FIBRES WILL BE COMPETITION FOR COTTON

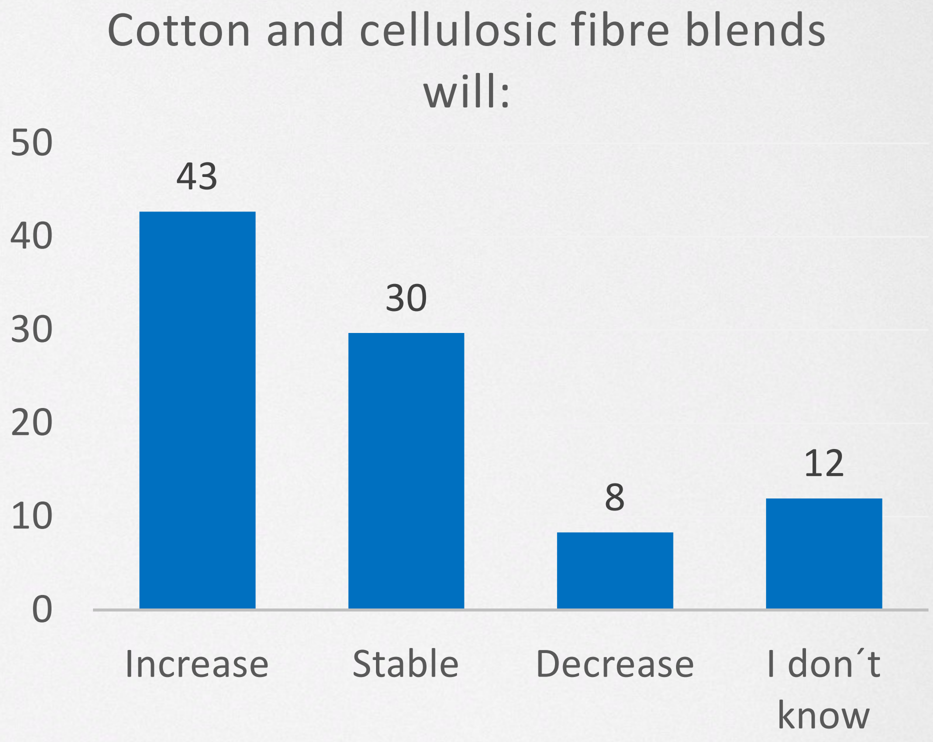


Multiple answers / % of respondents

SPINNERS SURVEY: TRENDS FOR COTTON USE



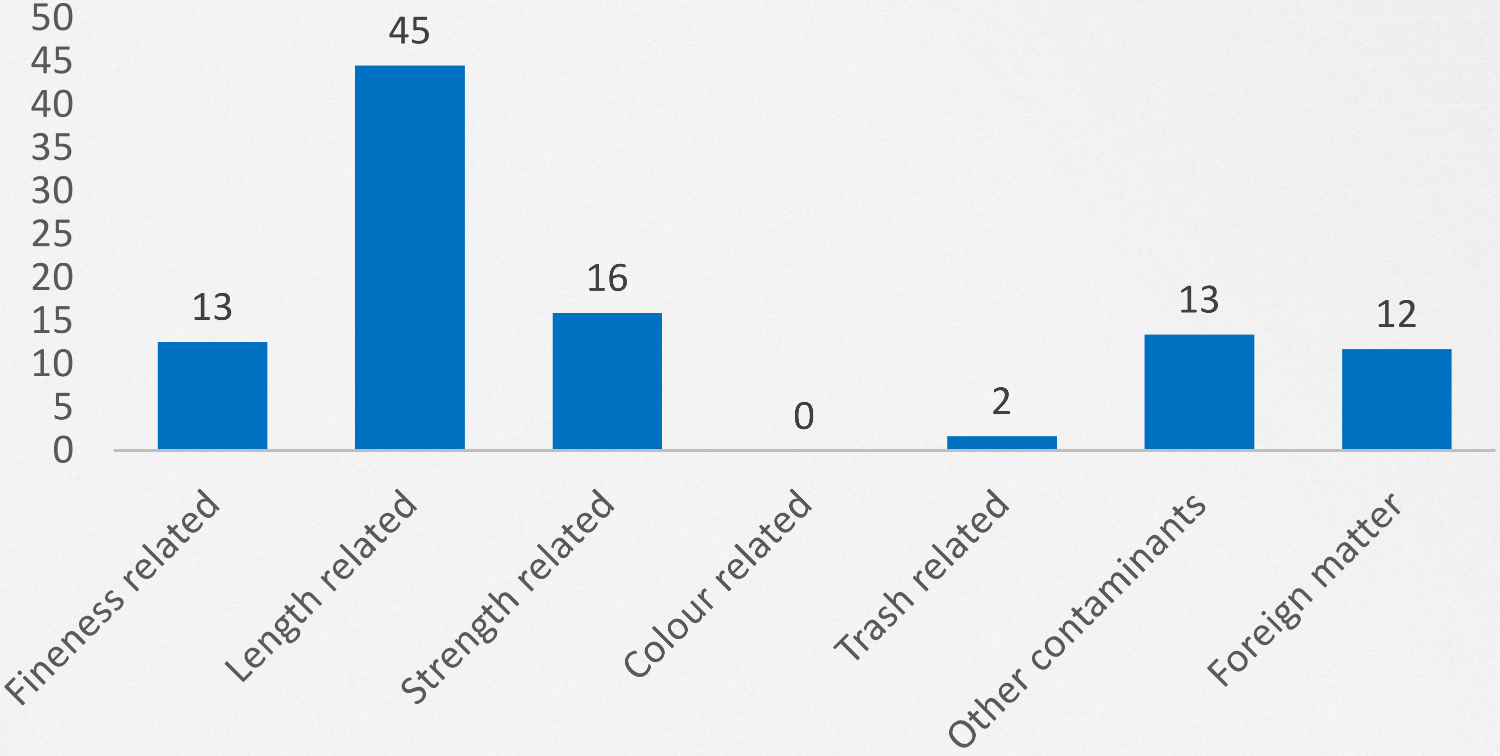
2016/17: 60%



2016/17: 42%

SPINNERS SURVEY: IMPROVEMENT FOR WHICH COTTON PROPERTY

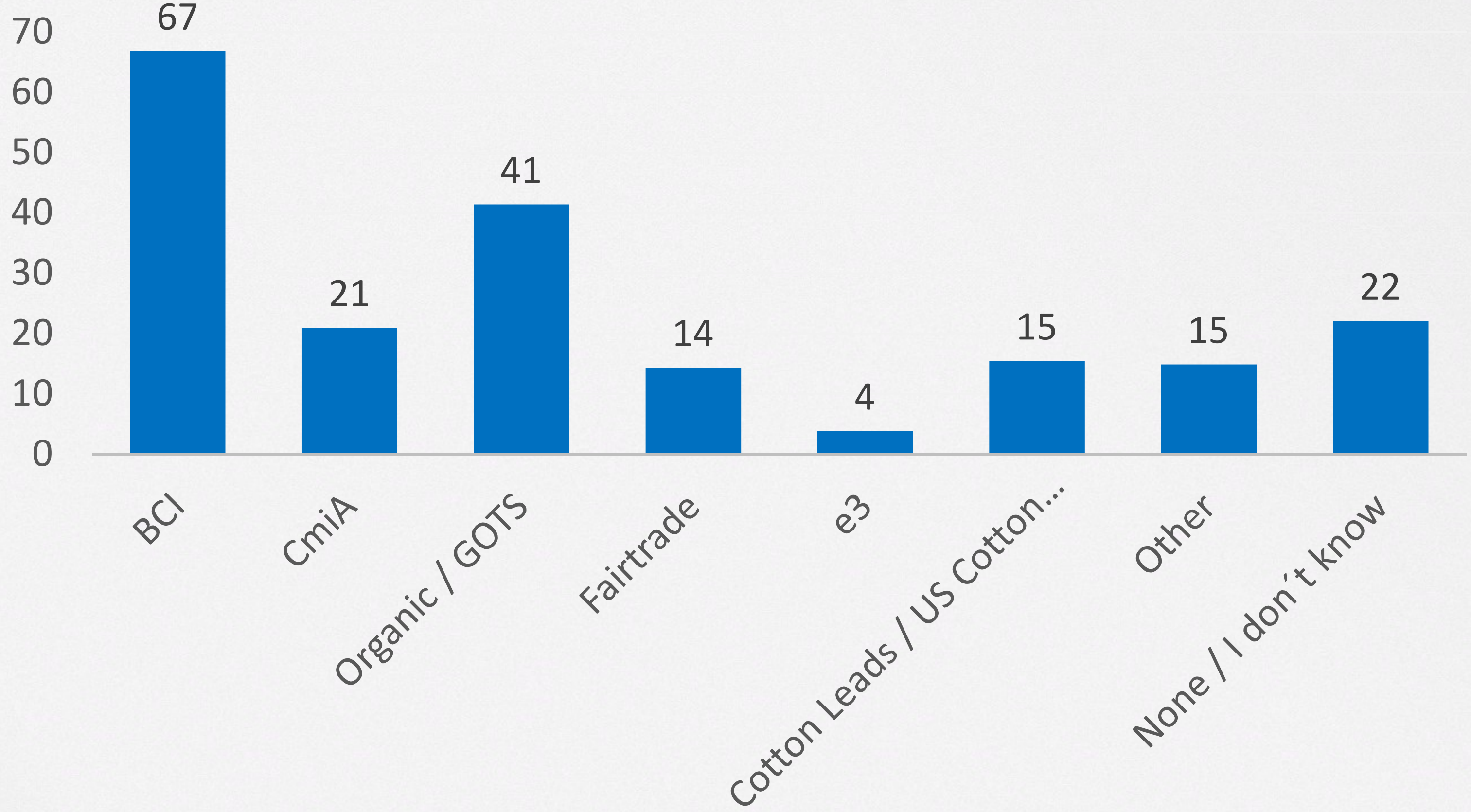
If one property could be improved, which one should [1 answer; % of answers]



2016/17: 14% 46% 19% 4% 5% 11% n.m.

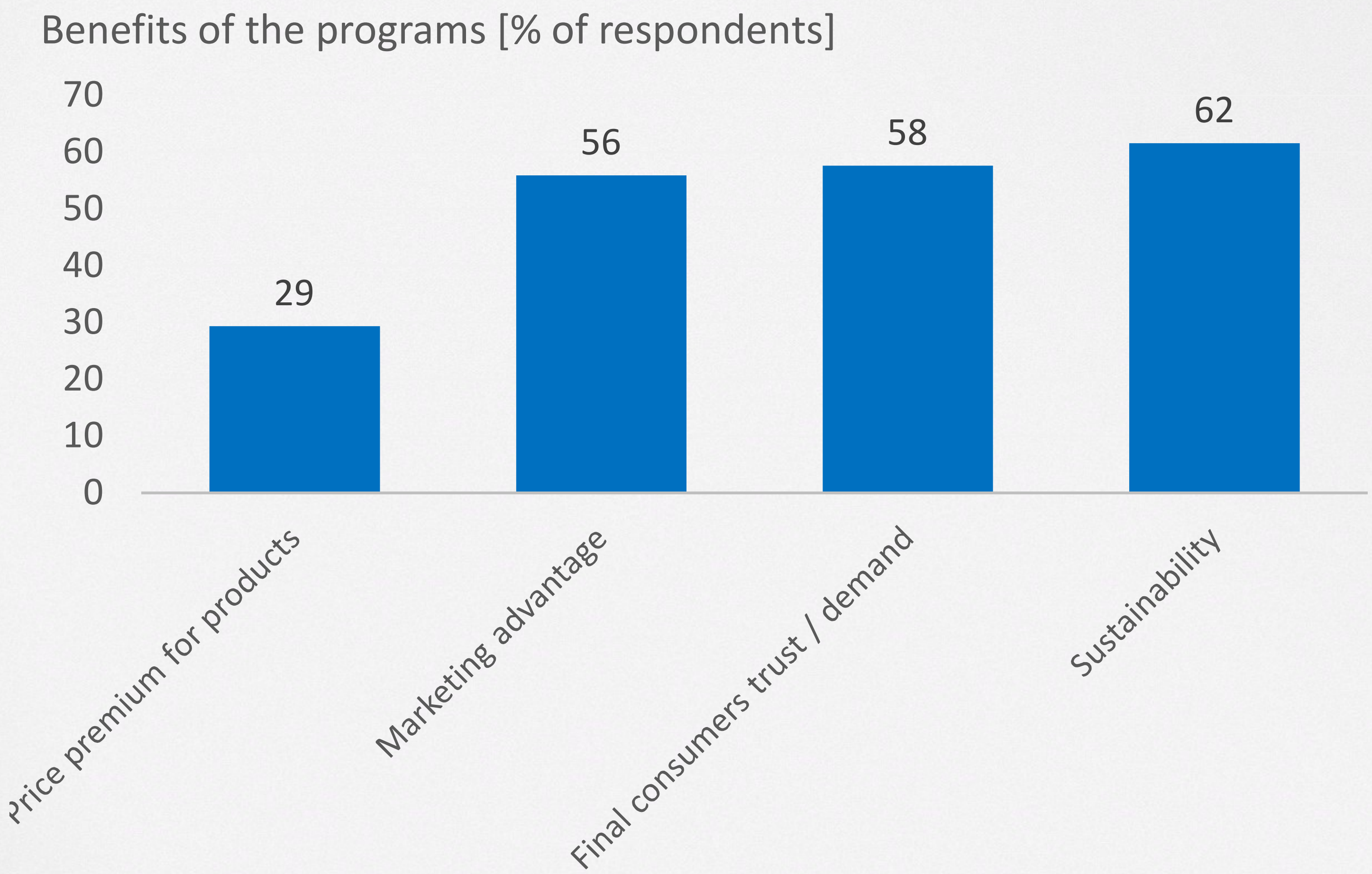
SPINNERS SURVEY: COTTON IDENTITY PROGRAMS

Cotton Identity Programs used by the respondents [% of respondents]



2016/17:	56%	13%	45%	10%	3%	8%	5%	28%

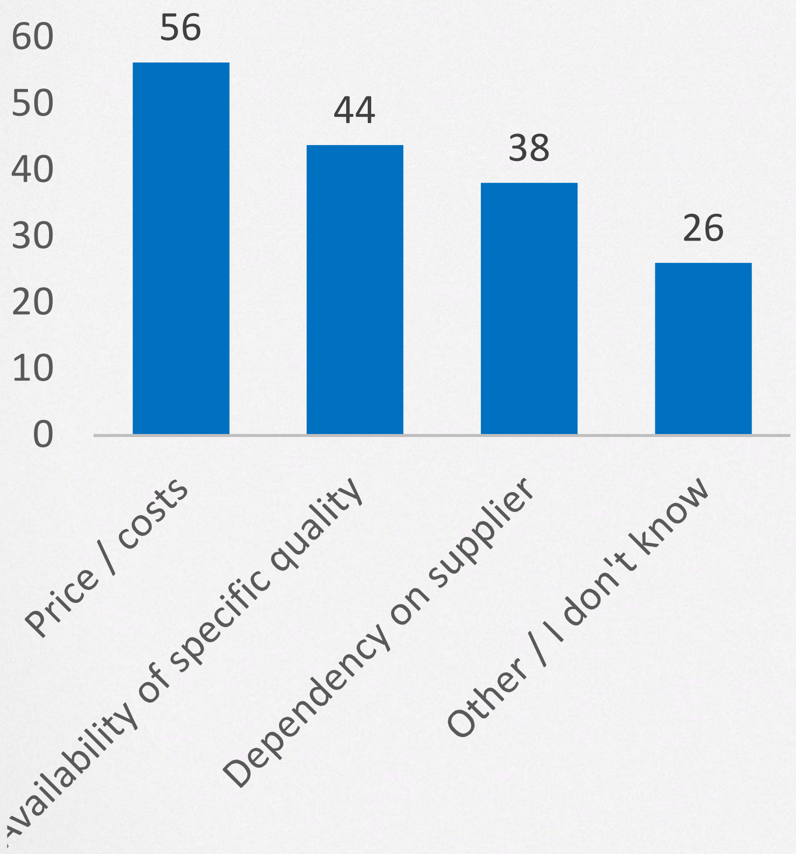
SPINNERS SURVEY: BENEFITS OF COTTON IDENTITY PROGRAMS



2016/17: 24% 55% 55% 46%

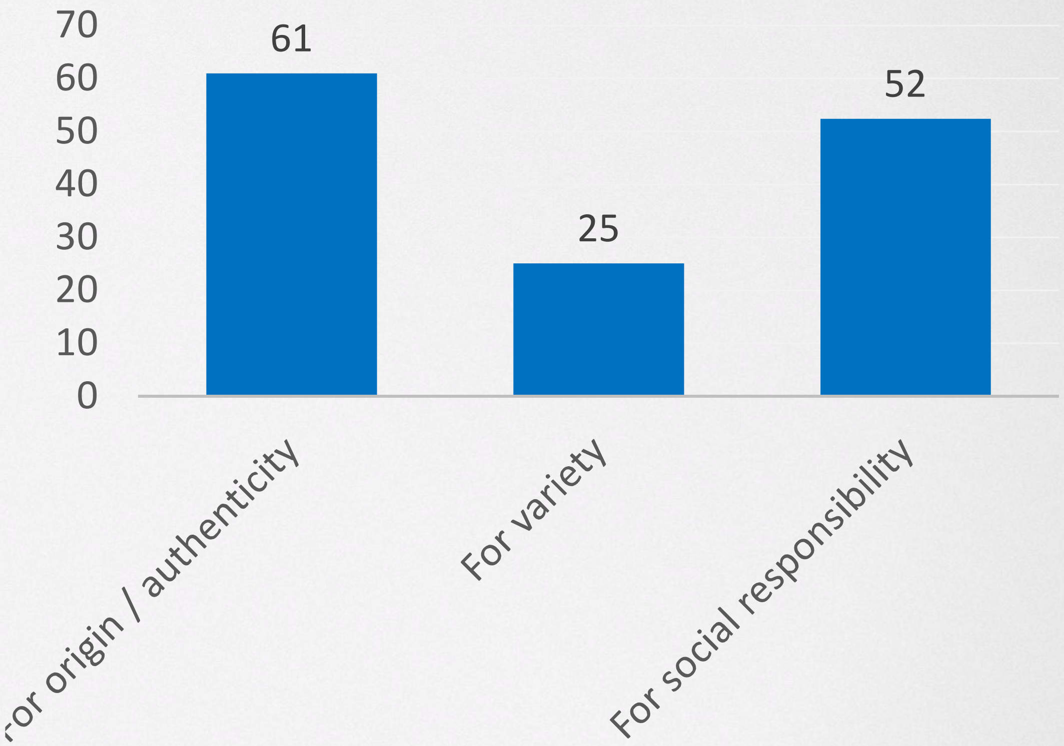
SPINNERS SURVEY: DEFICIENCIES OF COTTON IDENTITY PROGRAMS

Deficiencies of the programs [% of respondents]

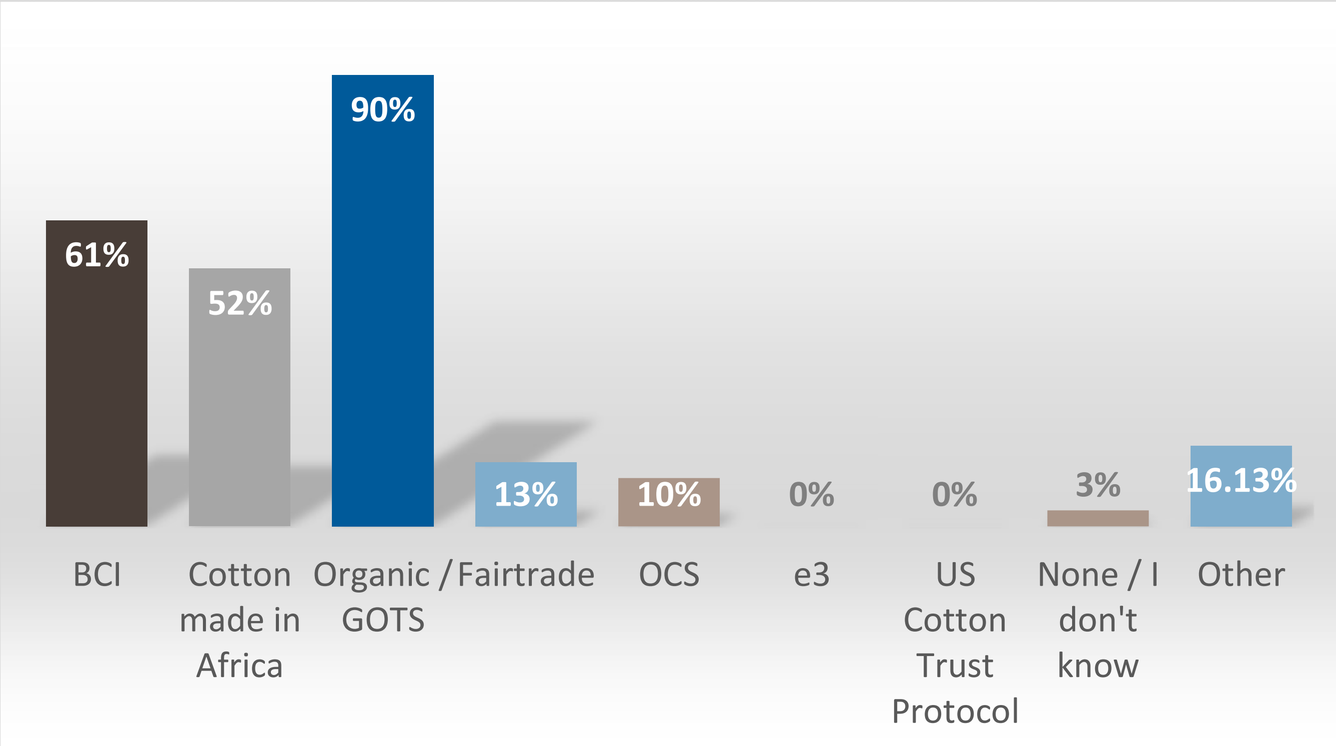


2016/17: 52% 43% 41% 24%

Additional needs for programs [% of respondents]

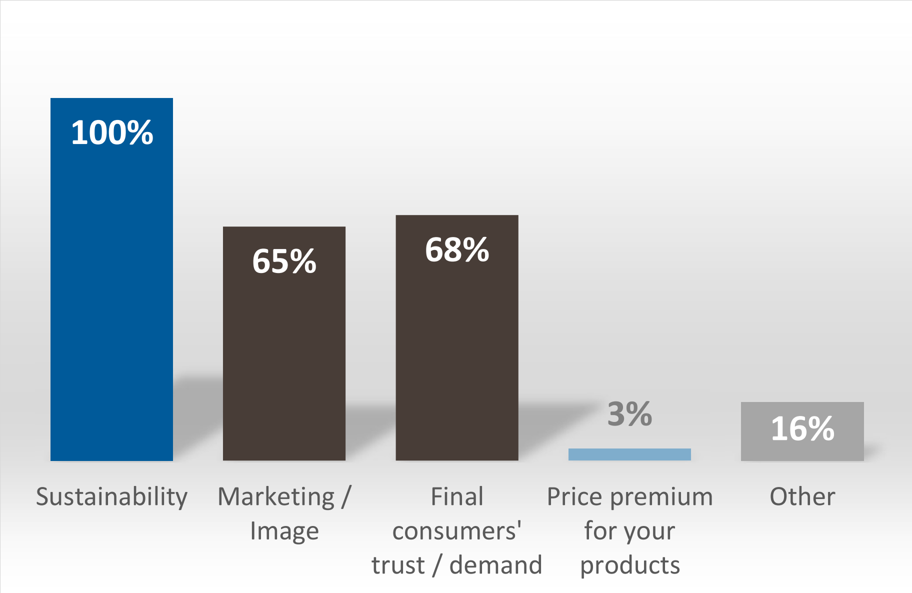


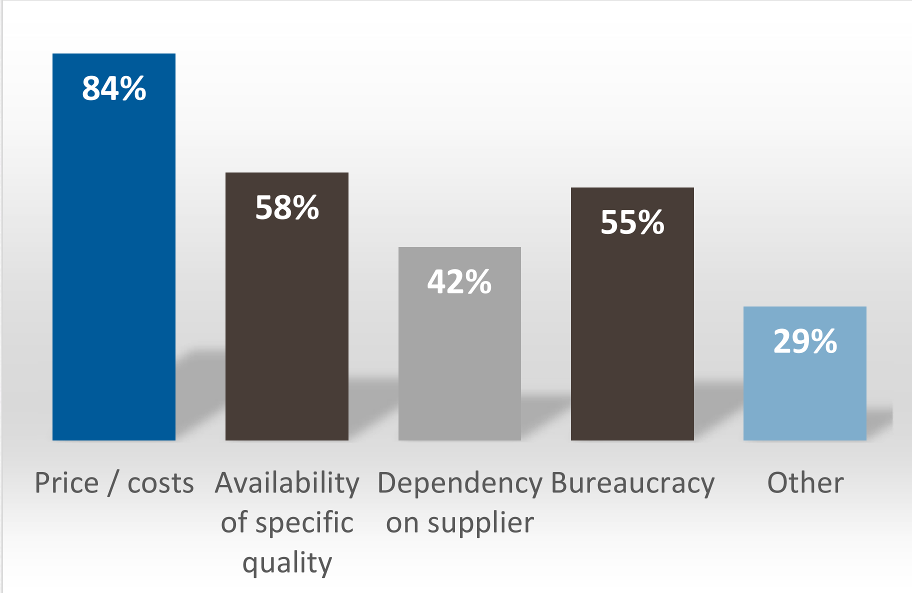
RETAIL SURVEY:
USE OF COTTON FABRICS OF COTTON IDENTITY PROGRAMS



Multiple answers / % of respondents

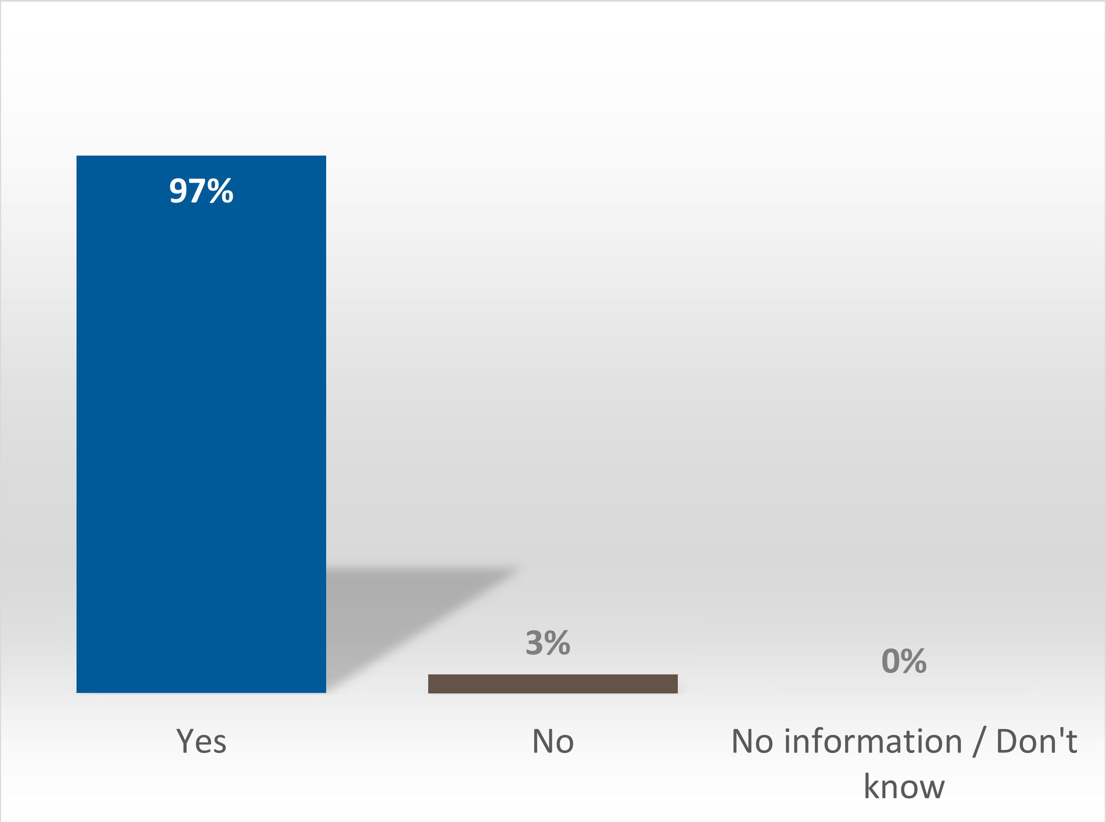
RETAIL SURVEY:
BENEFITS AND DEFICIENCIES OF IDENTITY PROGRAMS



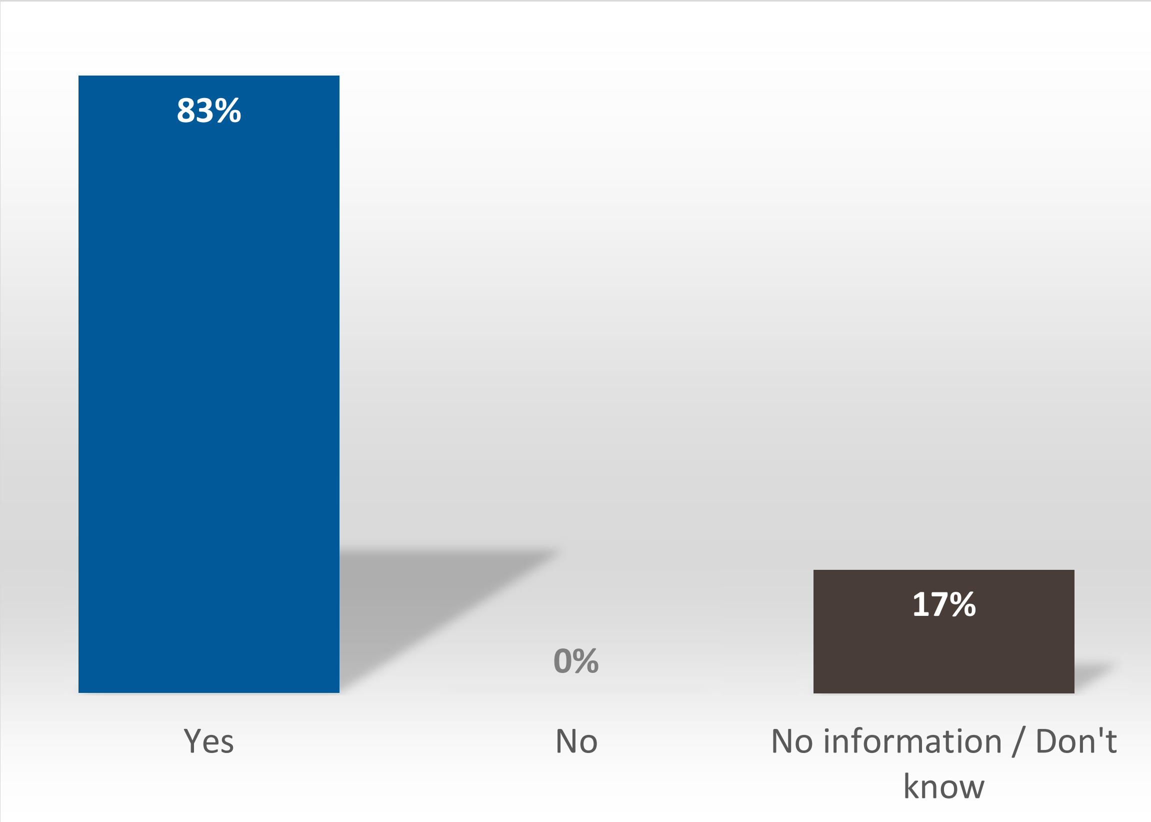


Multiple answers / % of respondents

RETAIL SURVEY:
INCREASE FOR COTTON FABRICS FROM IDENTITY PROGRAMS
(NEXT FIVE YEARS)

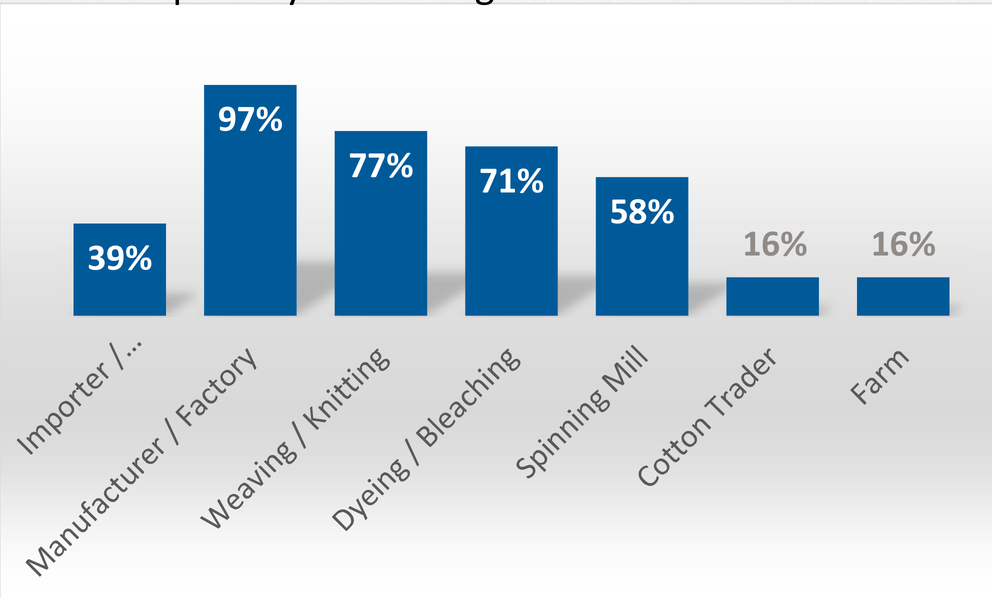


RETAIL SURVEY:
BENEFIT OF PLATFORM THAT COMPARES ALL PROGRAMS

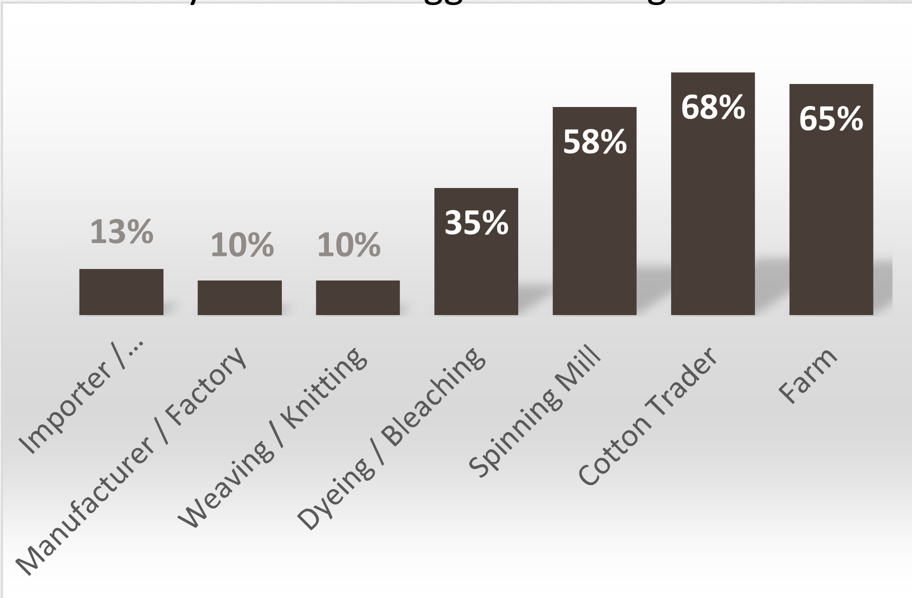


RETAIL SURVEY: SUPPLY CHAIN TRANSPARENCY

Which steps are you working at?



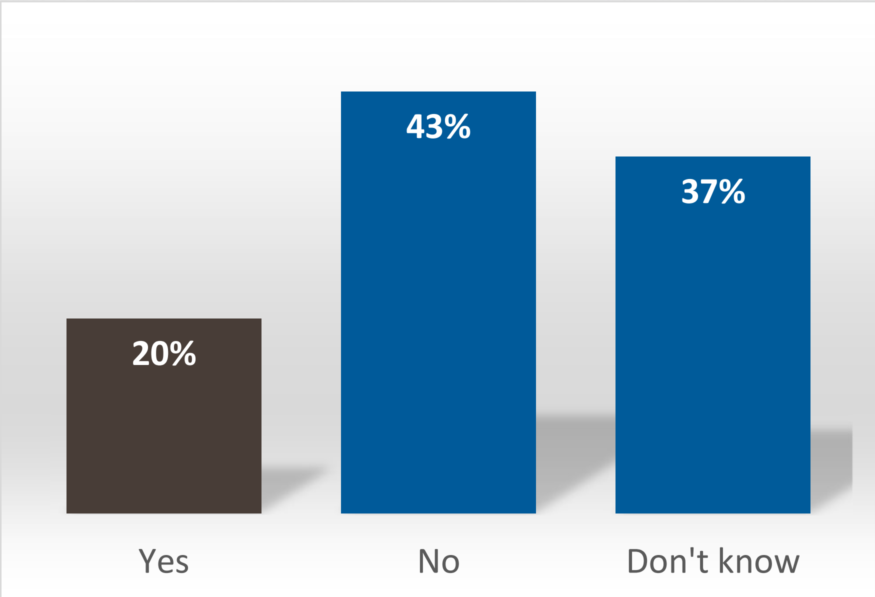
Where do you see the biggest challenges?



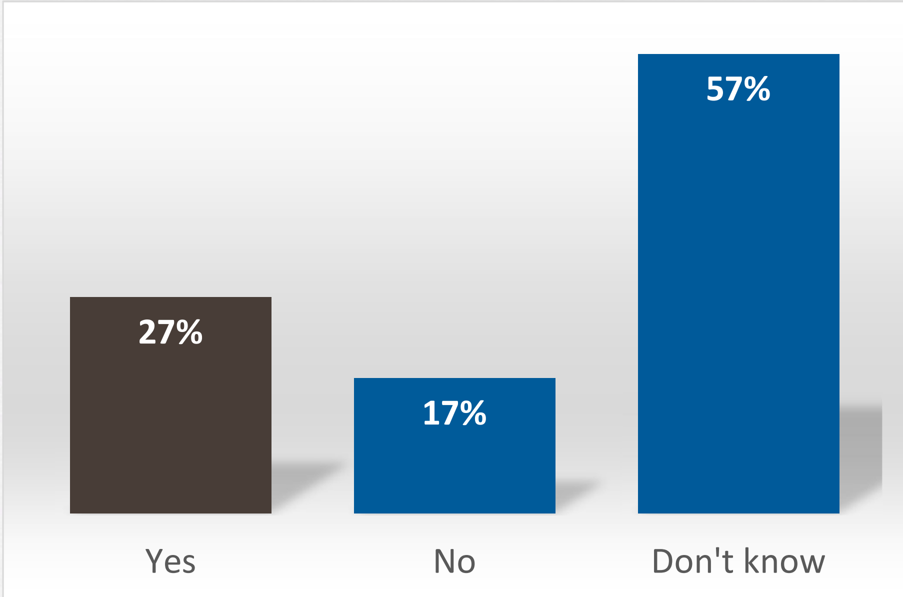
Multiple answers / % of respondents

RETAIL SURVEY: WILLINGNESS TO PAY FOR TRANSPARENCY

Premium for Transparency in the Supply Chain?



Premium for Traceability in the Raw Materials/Cotton Sector?



FINAL COMMENTS

- Spinners Survey
  - Although based on a large number of respondents and worldwide distribution of participating spinning mills, this study is only a snap-short of the current situation.
  - The consistency of the data from 2016/17 to 2020/21 nevertheless shows the reliablity of the information.
  - Some first trends for changes from 2016/17 to 2020/21 can be seen.
  - We hope to continue with the survey in 2024/25.
  - 10 winners of the raffle for the participants have been drawn and will be anounced on www.faserinstitut.de and www.baumwollboerse.de
- Retail Survey
  - Currently the suvey has only be conducted with the focus on Germany
  - We are looking forward to continuing the survey in other regions

FASERINSTITUT
FIBRE
BREMEN

BREMER BAUMWOLLBÖRSE · SEIT 1872 ·

THANK YOU