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Outlook on the global industrial and residential pellet markets - challenges and opportunities

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Exploring demand growth for the residential and industrial pellets



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Editor
Argus Biomass Markets

What are the forecasts for the residential market for 2018 – and how does the market differ to 2017?

This winter has reset some market participants' expectations about the residential pellet market. After a number of mild winters in a row, a cold snap at the tail end of winter 2016-17 helped run down pellet stocks in key consuming markets, such as Italy. But distributors did not rush to restock over summer, as prices held a significant premium compared with summer 2016.

Below-average temperatures across much of Europe in November increased demand beyond expectations for the time of year. At the same time, flooding and a subsequent lack of freezing in the Baltic region have made it difficult to access forests, limiting the volume of raw materials available for residential and industrial wood pellets, and wood chips.

Strong demand in the fourth quarter, combined with tight supply, has helped support prices compared with a year earlier. Despite a milder-than-average start to 2018, the Argus spot price for bagged premium pellets delivered to northern Italy has been €220.36/t on average so far this winter, compared with €194.50/t a year earlier. Prices for bagged pellets are also higher year on year in Germany, Austria and the UK.

The residential pellet market is so weather dependent that future demand will always be closely related to temperatures. But wood pellet stove installations have risen in a number of key consumer countries, increasing baseline demand.

One possible outcome of the higher prices for EN plus pellets this winter compared with last winter is that more distributors of residential pellets may seek to secure supply in the summer and store it themselves, rather than waiting until winter begins to confirm buying. And they may fill the distribution pipeline earlier in the year than before. But others will be mindful of recent mild winters and weak demand leaving a stock overhang from one year to the next, making them reluctant to take on the risk of contracting much supply ahead of next winter.

In your opinion, what are the key drivers in the boiler industry?

As such a relatively new technology, biomass-fired boilers are still largely dependent on government incentives in many markets such as the UK, with its RHI scheme. But this means that when government policy changes, or a scheme is so successful that it fulfills its budget, investment slows.

Elsewhere, the technology is more established, and residential wood pellet installations can be seen as a fashion or status symbol.

A further driver is the cost of competing fuels. Consumers want to know that the upfront investment in a new wood pellet-fired boiler will pay off in the long run, and the cost of competing fuels, such as natural gas and heating oil, has an effect on the speed of boiler installation growth. Pellet associations in a number of countries monitor these competing fuels on a cost/kWh basis, as it can be

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Demand for premium pellets has been spurred this winter by cold weather in Europe and North America”

difficult for consumers to understand how the costs compare for different fuels. The efficiency of a new wood pellet-fired stove can also help lower consumers' costs and prompt government support.

Do you see growing demand for premium pellets — in what applications and in which areas of the globe?

Demand for premium pellets has been spurred this winter by cold weather in Europe and North America. And the number of stove and boiler installations continues to trend upwards in most markets, lifting underlying demand.

Regions with a strong forestry sector — such as New England in the US, areas of Canada, Germany and eastern Europe — are all important.

On the other hand, countries such as Italy or parts of France, with isolated regions far from a pipeline gas grid, where heating has typically been expensive and somewhat inconvenient, are primed to continue to develop the residential biomass heating market. And markets where there is an established culture of wood-fired heating, such as in ski lodges, are well placed to be receptive to biomass heating.

A further development in the residential pellet market in recent months has been increased competition from the industrial and semi-industrial sectors. The capacity of Europe's combined heat and power plants (CHP) has risen in the past year or so, and while these installations do not usually require EN plus grade pellets specifically, they often have specification requirements that EN plus pellets are well placed to meet. This, combined with the production shortage in the Baltic region limiting the supply of industrial wood pellets, has prompted greater demand from countries with large CHP capacity and district heating networks for pellets that would previously have been aimed at the residential market. And such installations typically have higher demand during cold weather, coinciding with the peak demand period from the residential sector.

Prices in the residential market are typically higher than in the industrial sector. But the amount of supply required by industrial and semi-industrial heating plants is so great that it can be attractive for suppliers to sell into these sectors, rather than for distribution to small-scale consumers.





Q&A

with

Alexander Afanasyev Managing Director and

Dean Scanlan Senior Trader, Peltrade

What is your overall outlook for the Russian wood pellet market?

At the moment, domestic demand covers no more than 10-15pc of Russian production and it is very much seasonal. So the majority of producers are targeting export clients.

In recent years, because of the new government regulation forcing timber producers to utilise their residuals, we have seen a lot of new capacity coming on line. Large timber producers located in Siberia and northwest Russia launched over 300,000 t/yr of new capacity in the past two years, and more is on the way.

One of the main problems facing the Russian pellet industry is very low capacity utilisation. Many plants are idled, and others are operating at just 30-50pc of capacity. But because of rising pellet prices and the availability of substantial quantities of cheap raw materials, we see a good chance that producers can increase their utilisation.

We believe that these factors in the next few years will make Russia one of the major players in the market — and one that can help cope with growing pellet demand.

Where do you see the largest export opportunities?

If we consider intra-EU activity for the industrial sector, Scandinavia, the UK and the Netherlands offer opportunities, as large conversions continue to be commissioned and are widely expected to be fully operational from the second quarter. Utilities have procured a large percentage of their requirements, but we believe that there will be opportunities to supply product on a spot basis.

On a global scale, South Korea and Japan will continue to offer opportunities as demand increases.

Regarding the residential sector, we see opportunities in the UK, continental Europe and Italy. The difficulties experienced in the pellet production sector over the past two years and the subsequent closure of some plants have become a problem for consumers. There are difficulties in acquiring supply from the Baltic region, as raw material challenges have led to price squeezes.

What do you see as the main challenges for biomass trading?

In a market that has experienced the number of developments that we have witnessed over the past 18 months to two years, there are several challenges.

I touched on one in the previous question, with regards to the difficulty in acquiring material from the Baltic states, owing to raw material shortages. Building a robust, diverse and sustainable supply chain is extremely important, especially when trading in both industrial and residential markets.



The continued expansion of the residential market has led to a number of new entrants, which is a positive development. But many of these companies have no track record and limited resources, which can make concluding a deal challenging. Conducting thorough 'know your customer' procedures is time-consuming and uses up resources. But it is vital before concluding a deal.

The next issue is not so much of a challenge, but is again time-consuming — the need to monitor supplies and suppliers closely from a sustainability and certification perspective. There are a number of different sustainability schemes, so it is important to ensure that we match the right suppliers with consumers to fulfill compliance.

You mention the challenges experienced in the Baltic region this season — what would you do differently or suggest your customers do differently to avoid a similar situation happening in the future?

From our point of view, we came into the season well covered, but incurred some delays in the Baltic region. We were able to source material from elsewhere, which alleviated most of the problems and meant that we were able to minimise the effect on our existing customer base. Production problems in the UK have presented opportunities to increase our customer base. But we have been unable to take advantage of this because of our existing commitments.

The most important piece of advice that I would give not only to our customers, but consumers in general, is to carry more stock into the next heating season and diversify. Recent mild winters have made firms less mindful of the need to go into winter well-stocked, but the market is finely balanced and when supply problems occur, price spikes are inevitable — but they can be minimised if consumers are carrying stock. It is fantastic if you are able to cover your requirements locally, but when production problems occur, it is not always possible to source alternative supply at the drop of a hat, as there are lead times for production, shipping and delivery.





Q&A

with

Bill Strauss

President, FutureMetrics

What is your overall outlook for the wood pellet market up until 2020?

Based on FutureMetrics research, I believe that the market will grow significantly. The UK will see new industrial pellet demand from Lynmouth very soon and MGT Power by 2020. That will add about 2.7mn t/yr to UK demand. Although Drax's unit 4, after conversion to pellets, is not expected to run at full capacity, we expect it will allow the Drax station to be more consistent in its generation from pellets when the other units have scheduled or unscheduled maintenance. Our estimate is that it will add about 500,000 t/yr to UK demand. The Netherlands should add another 2.5mn t/yr to total demand by 2020. As our Japan Biomass Outlook report shows, wood pellet demand in Japan could increase to about 1.8mn t/yr by the end of 2020. About 900,000 t/yr of the demand will be from independent power producers (IPPs). The IPPs' demand is quantified by FutureMetrics research. The rest, from large utilities co-firing at modest ratios, is less certain because the co-firing ratios may be higher or lower than those used in the model. South Korean demand by 2020 is less certain, given that the use of pellets in power generation depends on the market prices of renewable energy certificates (RECs). If REC prices remain favourable, South Korea is expected to be consuming about 6mn t/yr by the end of 2020.

What investments do you see in the US in regards to increasing pellet production?

It is difficult to know what the major producers have planned, other than what is announced in public. We do, however, see strong interest for new industrial pellet production capacity

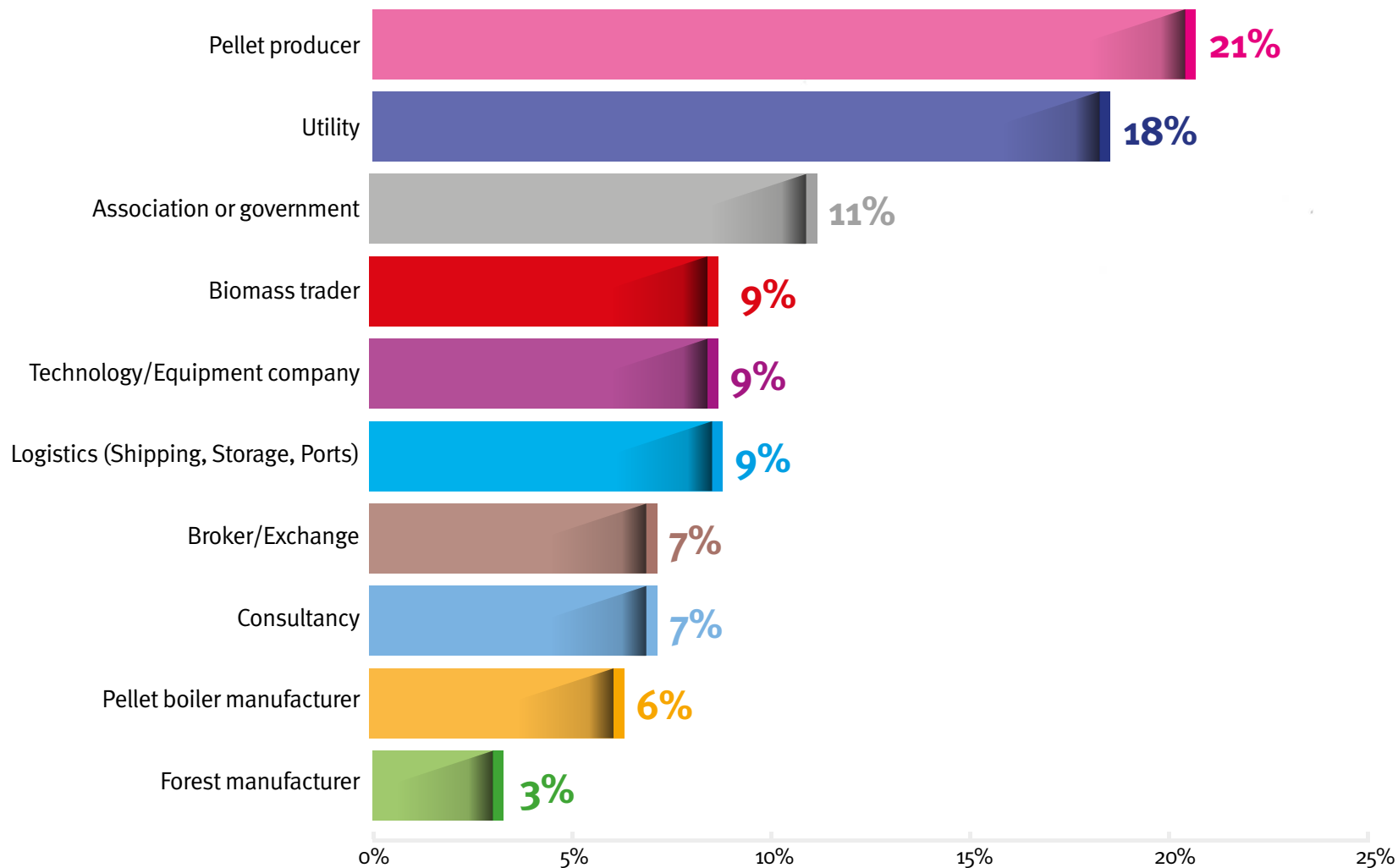
from new entrants contacting FutureMetrics for advice. It is likely that a significant portion of western Canadian production that is currently shipped through the Panama Canal to the UK will eventually be shipped to Japan under long-term offtake agreements. That will create an opportunity for east coast producers to fill that gap in demand. In my opinion, we will see competitive export projects arise in Maine, where more than 2.5mn t/yr of softwood demand by pulp mills has disappeared in the past few years.

How can companies build sustainable business relationships with the Asian market, and what opportunities are there?

By 2025, our Japan Biomass Outlook report median forecast is that IPPs and major utilities will consume over 9mn t/yr of wood pellets. Japanese policy will demand good sustainability credentials, and the Japanese IPPs and major utilities need long-term contracts that provide fuel delivery security and define the fuel costs over the term of the deal. Strong rule of law in the producing country and trust that the producer can deliver the contracted quantities at the agreed prices will be necessary for deals. These necessary conditions favour certain countries over others. Building on the foundation of the rule of law, sustainability, and the ability to deliver consistent high-quality pellets, as well as trust in the senior leadership of the producer is critical.

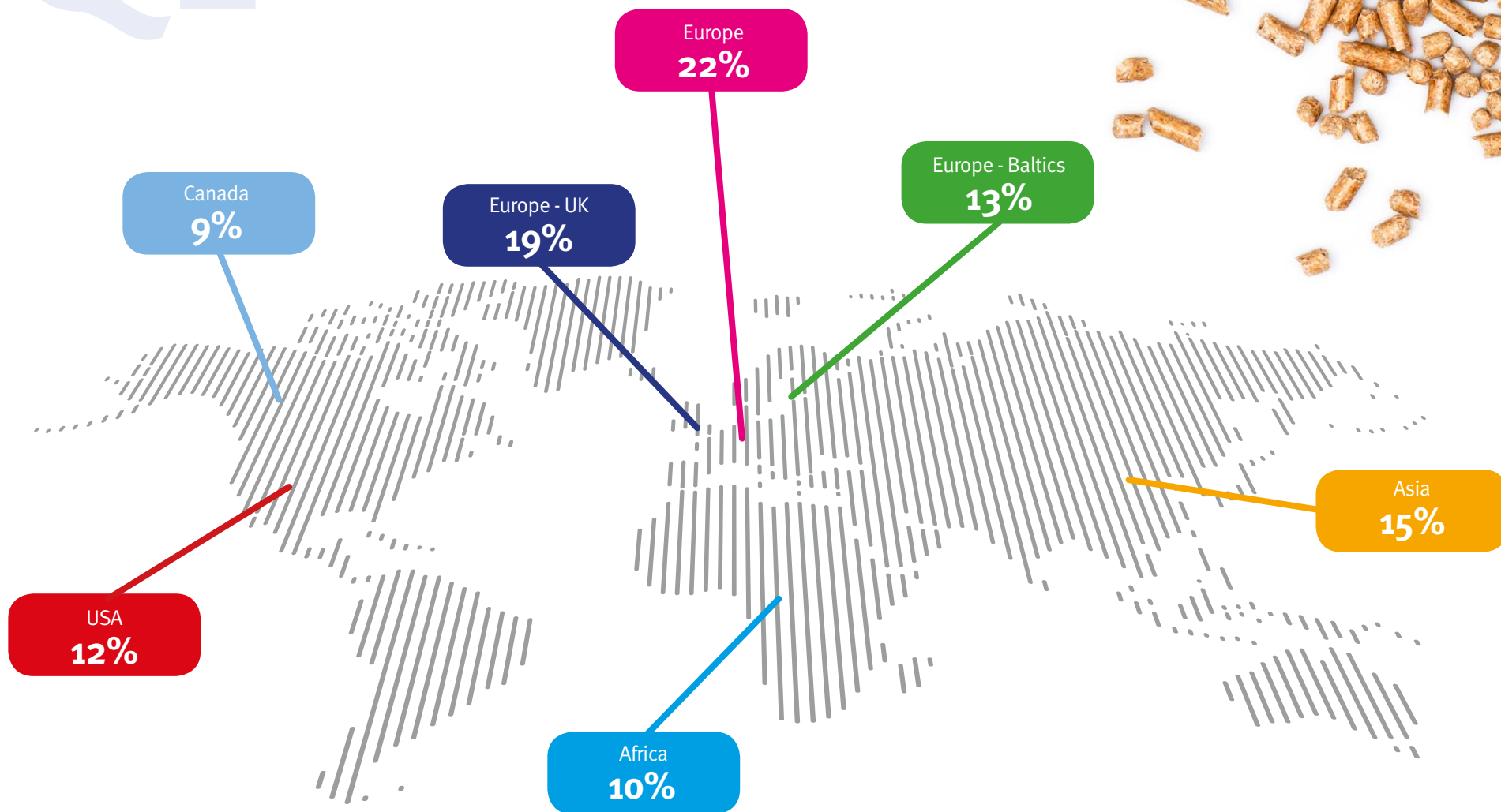
Argus Biomass 2018 survey results: Opportunities and challenges in 2018 and beyond

Please select your company type



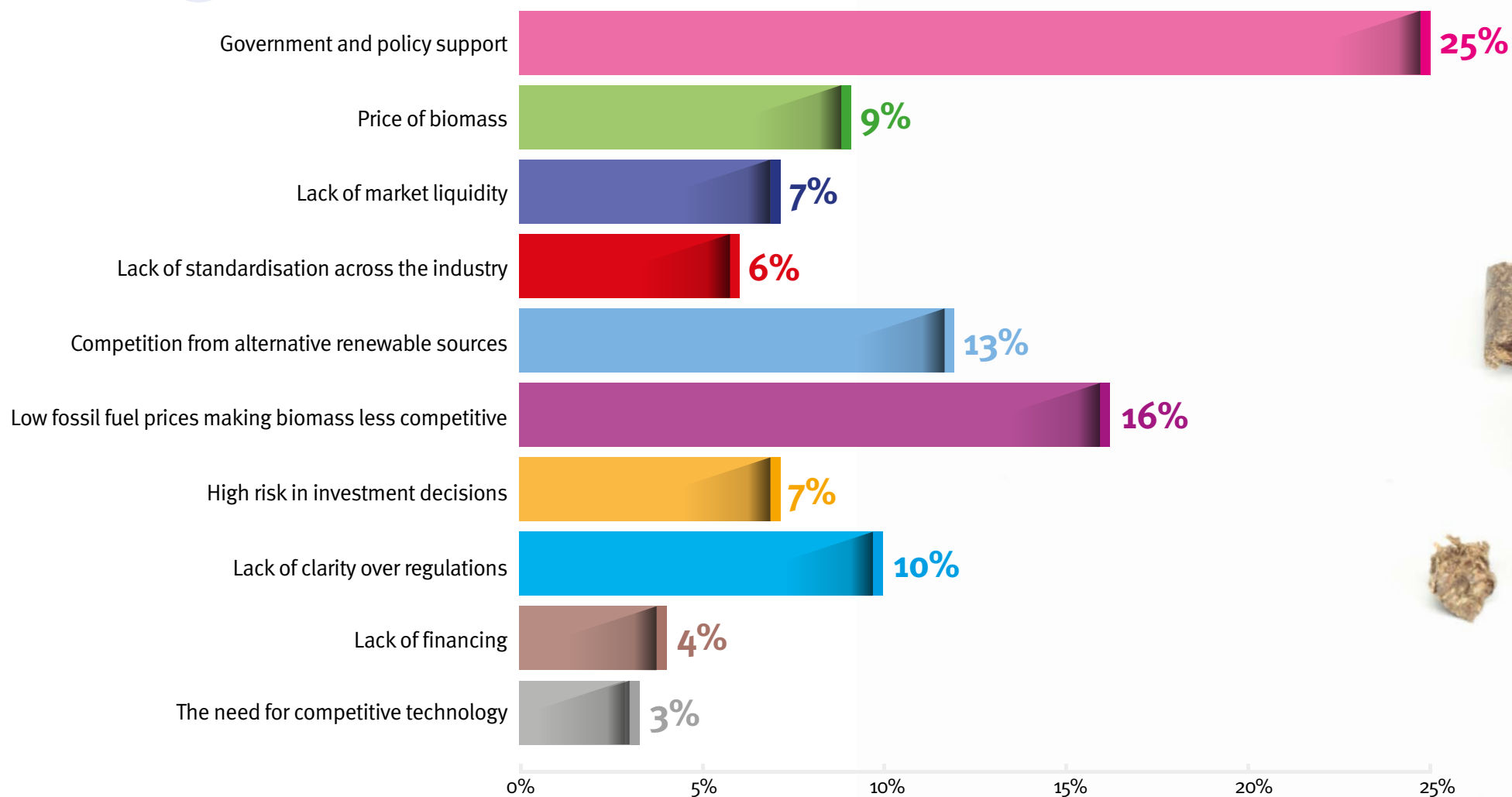
Q1

Which region is the main focus for your business?



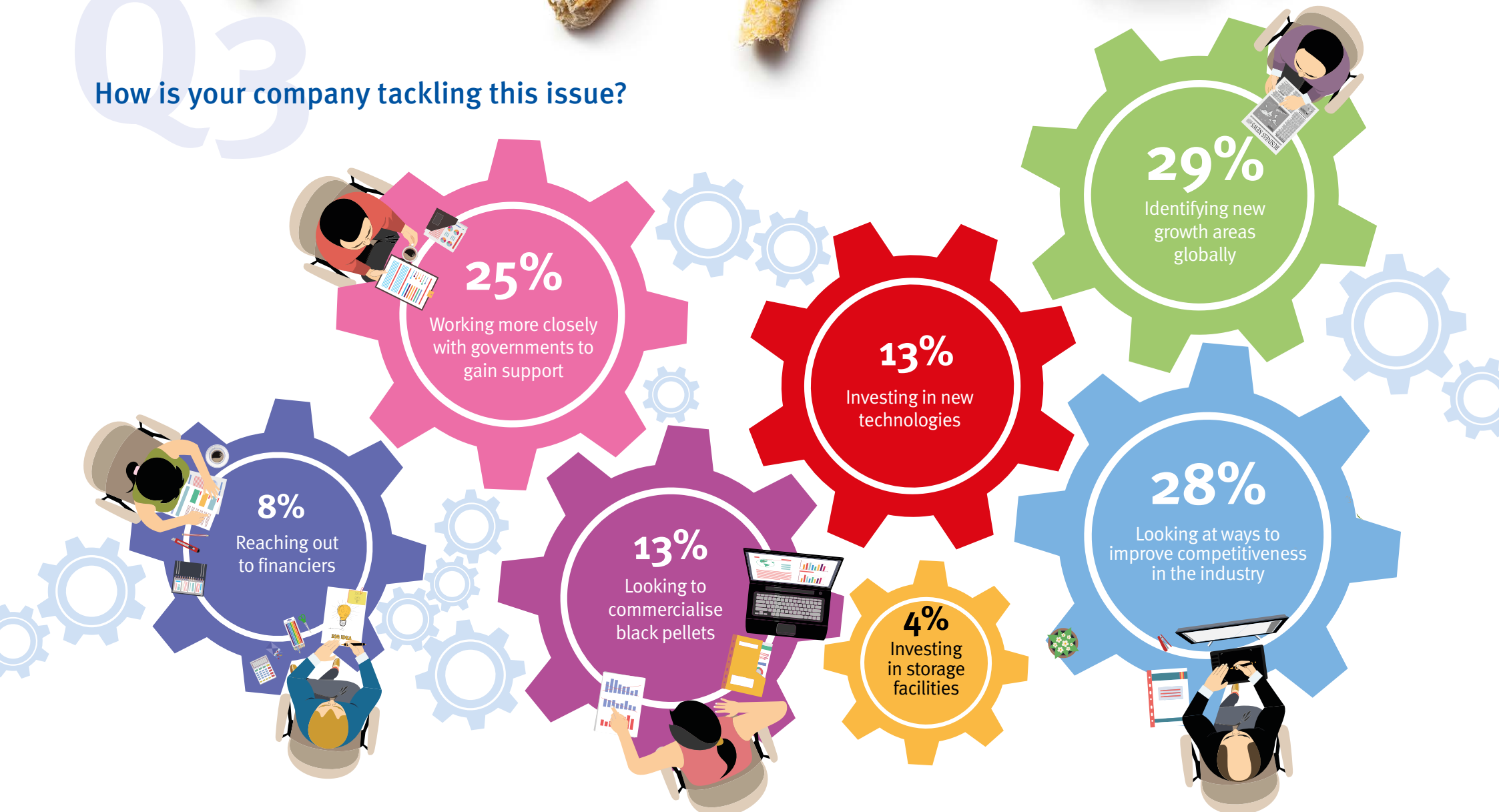
Q2

In your opinion, what is the biggest challenge facing the global biomass industry?



Q3

How is your company tackling this issue?





Companies are also tackling their number-one challenge by:

Investing in lower PM10 emission technologies

Introducing carbon pricing on all markets

Defining sustainability of biomass supply and use

Working on providing sustainability solutions

Moving to a market or country with good renewable subsidies

Promoting carbon pricing

Improving transparency across the value chain

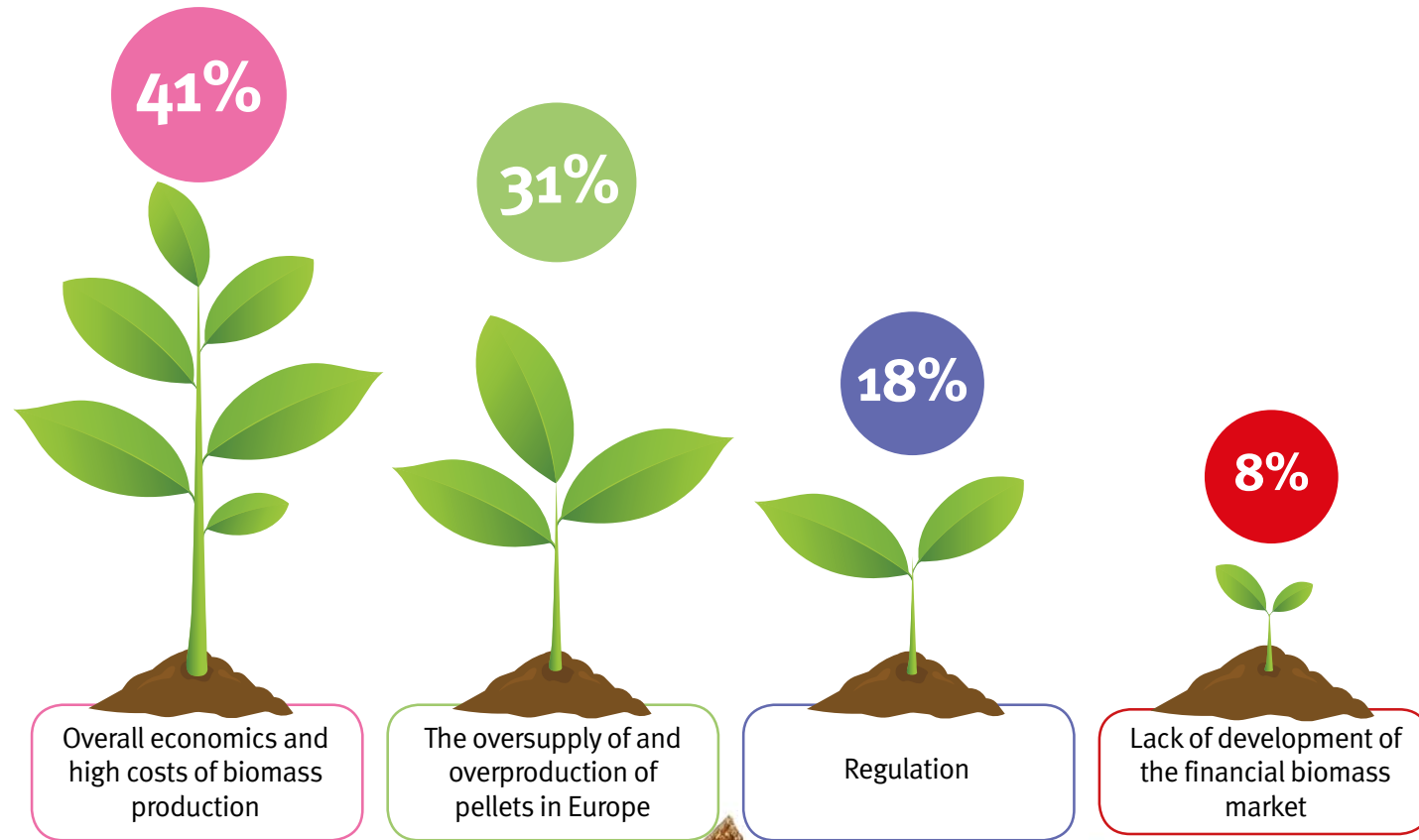
Looking at integration with other supply chains

Supporting wind and solar

Trying to work for sound regulations and higher prices on carbon emissions from fossil fuels

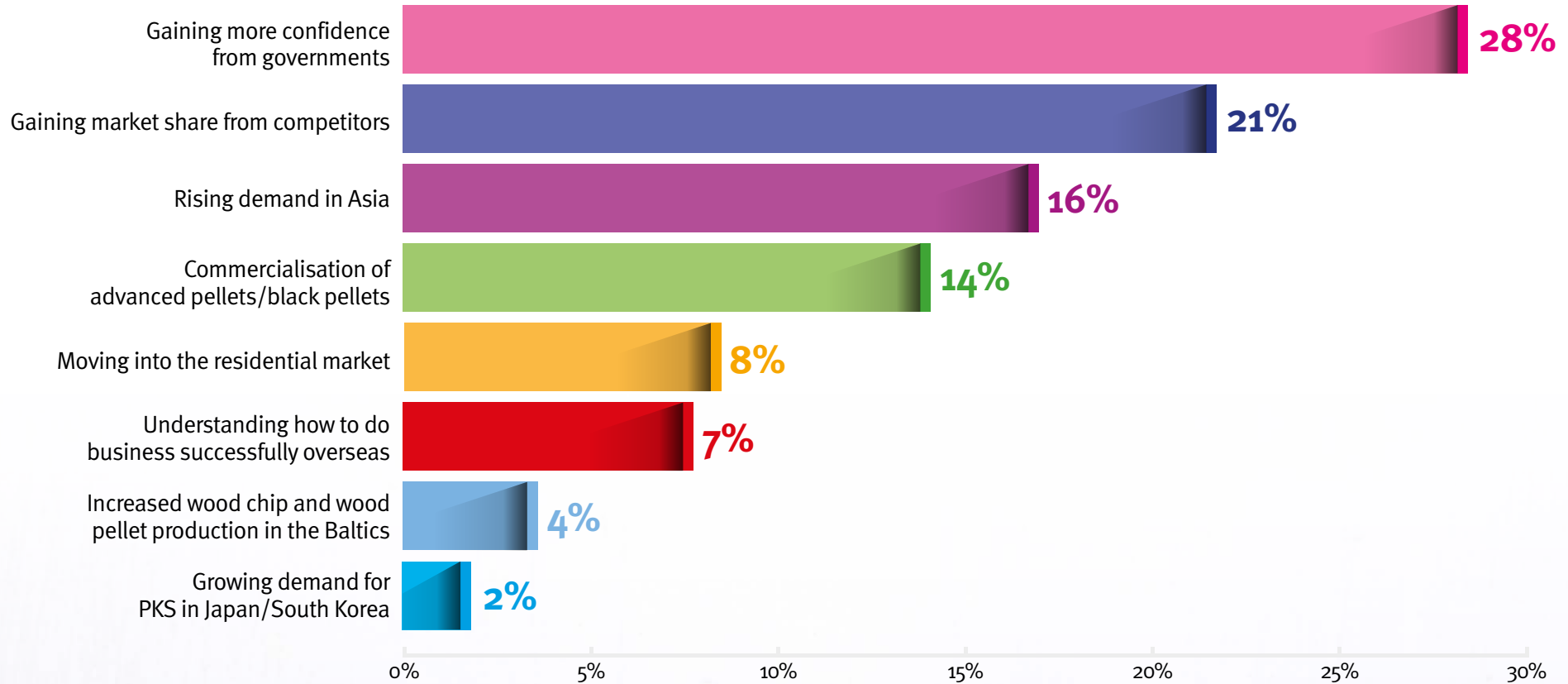
Developing IT mobile apps to help streamline logistics process

Which of the following do you consider the most significant threat to the growth of your organisation in 2018?

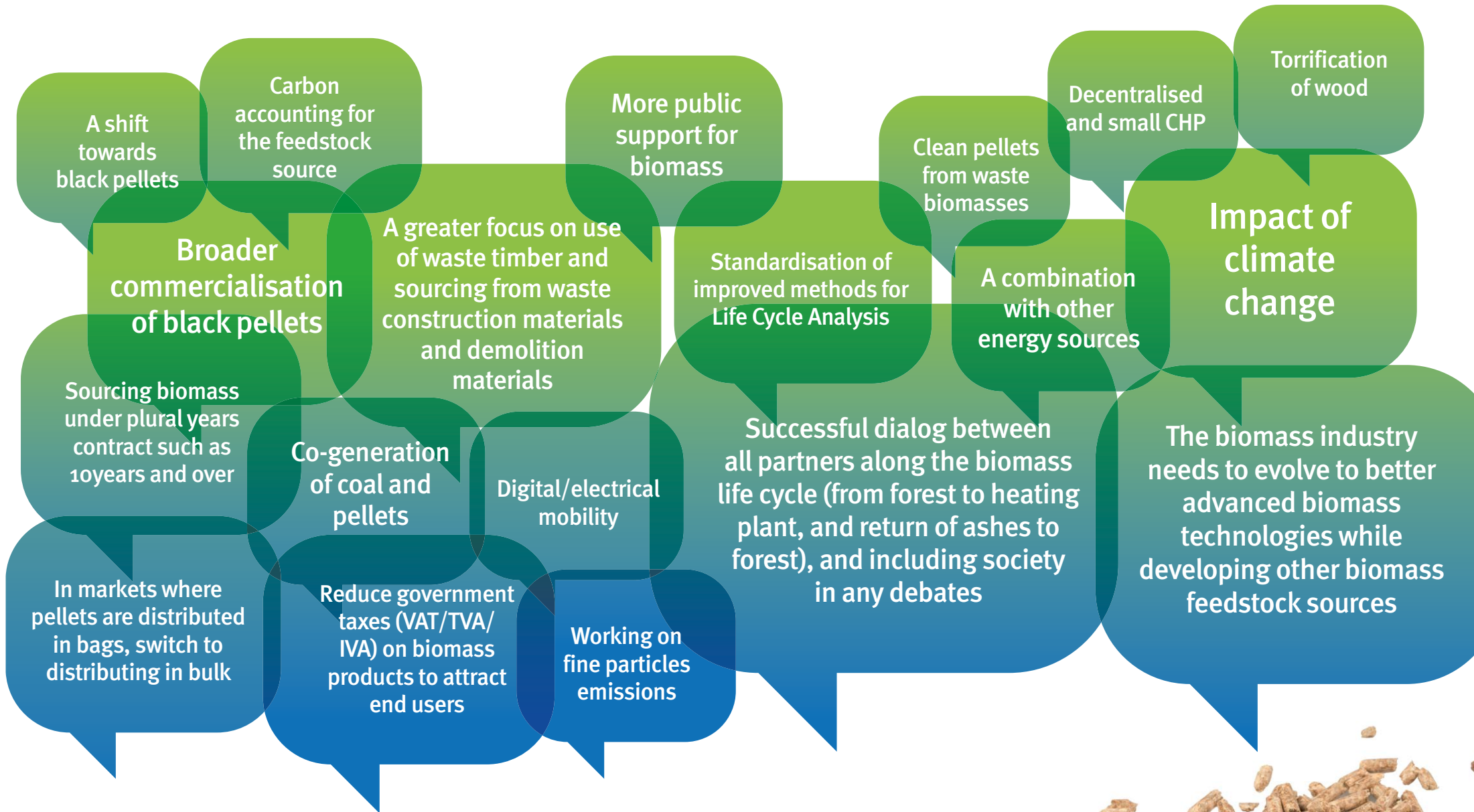


Q5

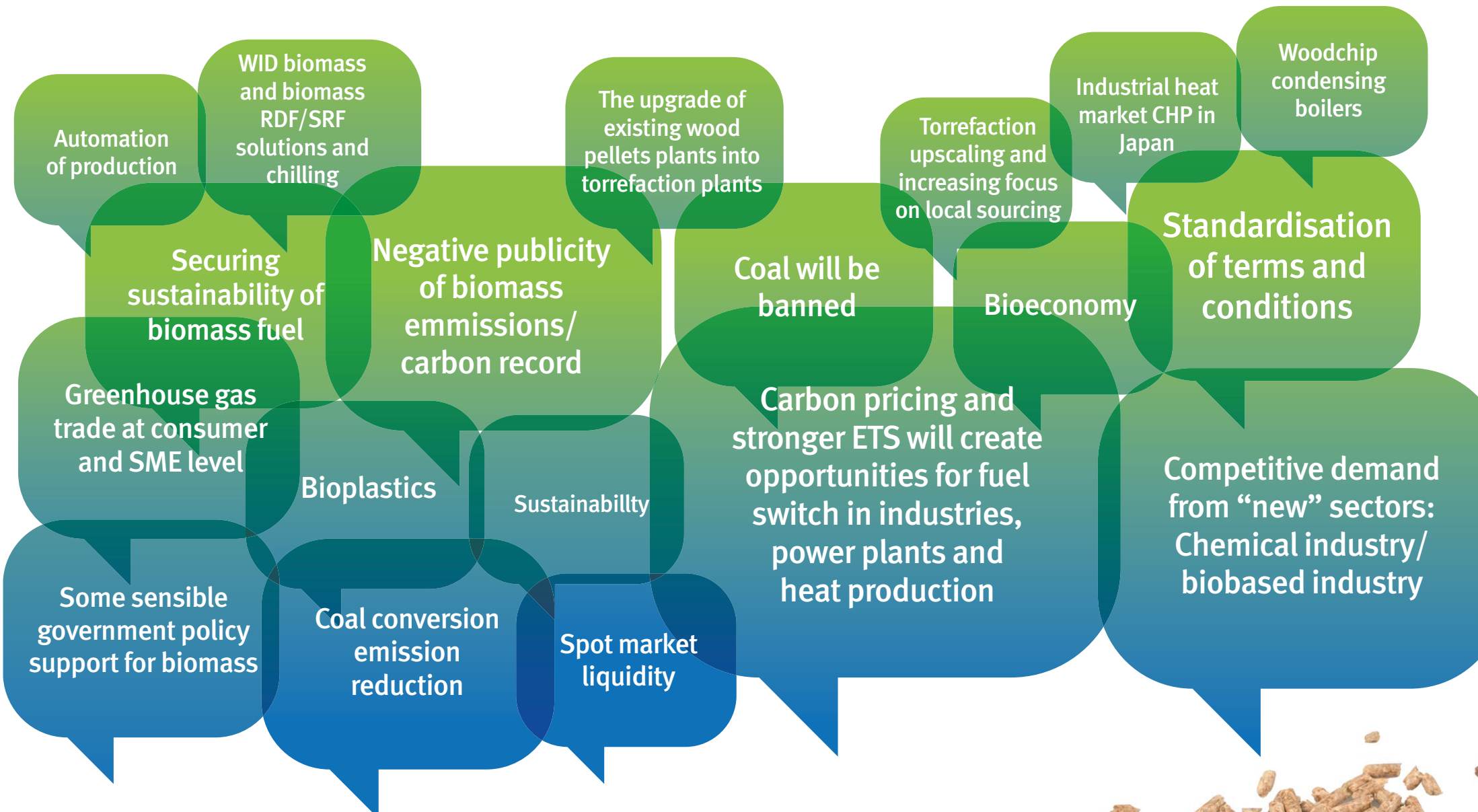
Which of the following do you consider a significant opportunity for your organisation?



What will be the next BIG thing in the industry?



What will be the next BIG thing in the industry? *continued*



If you could ask a single question to a panel of global biomass experts, what would it be?

What will the price be in five years and why?

How can we create more liquidity?

How can we balance wood chip with pulp demand?

Why do we fail to get public acceptance?

How do you deal with social and environmental performance of your sources?

Will there be long-term government support for biomass?

How can biomass play a more important role in tackling climate change?

How we keep biomass sourcing harvesting sustainable to ramp production for Asia?

What will be the trend for generating electricity from biomass?

What can we do about the negative public image of biomass?

How do we get the wider population to understand the timber industry and the fact that biomass is sustainable?

What is your opinion about municipal waste incineration?

How can this market develop without adequate price discovery mechanisms?

What do you do to secure sustainable production of the raw material and thereby gain confidence in bioenergy from consumers and environmentalists

How to ensure stable supply with competitive pricing

Is the co-fire market (potentially) not too big for a sustainable biomass production?

How can we reduce fine particulate emissions by pellet firing?

What do you do for price transparency?

How will the planet provide the necessary resources to maintain human populations?

Why they think gasification should be the new black?

How to achieve sustainable development of biomass use within the whole biomass chain?

How can we secure long-term supply under a fixed price?

How will biomass compete when subsidies expire or are rolled back?

Why is the UK biomass marketplace not regulated like fossil fuels in terms of installation criteria?

How can we increase the total global supply of biomass without compromising food production?

How does the cost compare between wind and biomass?



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