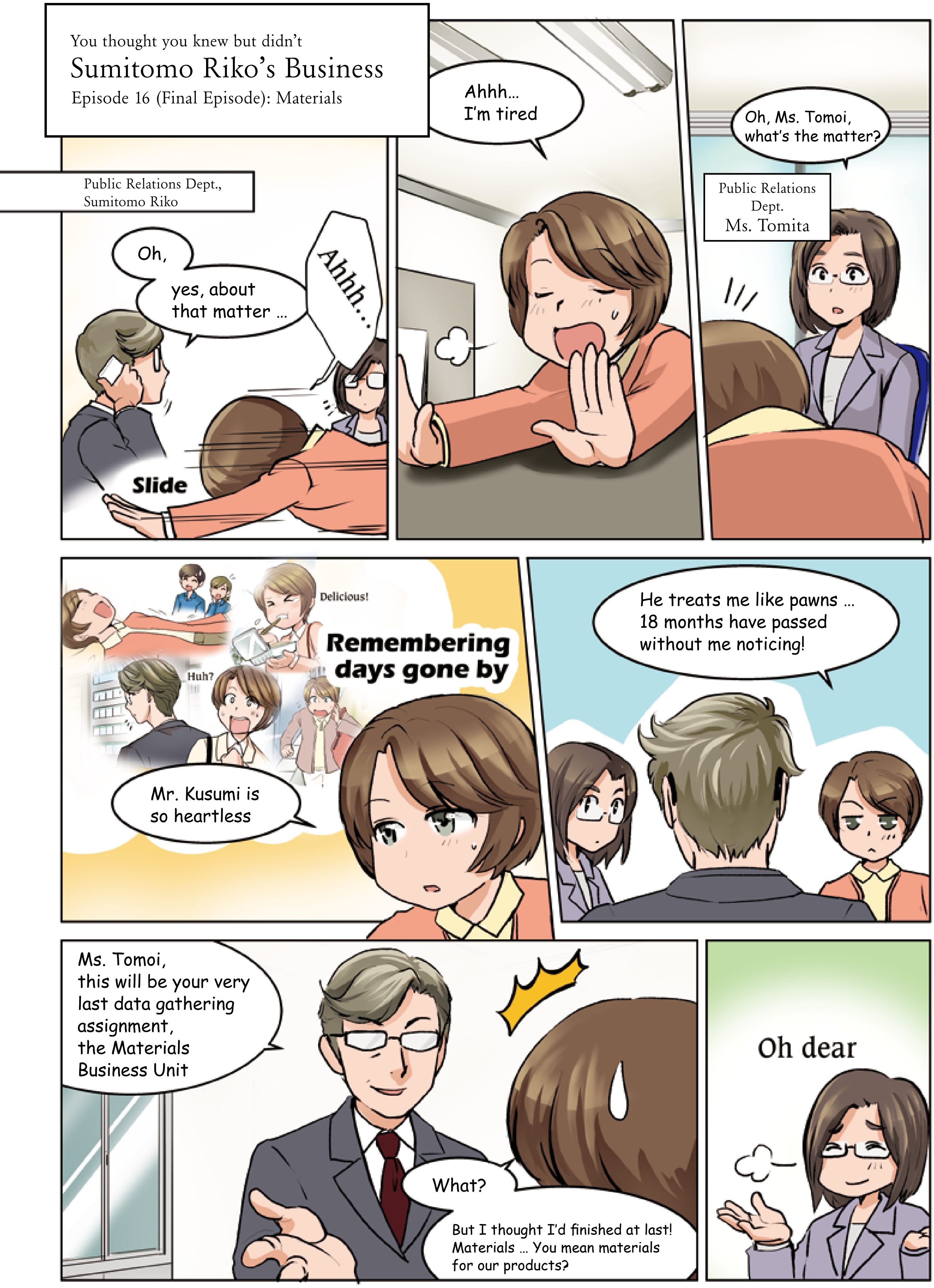
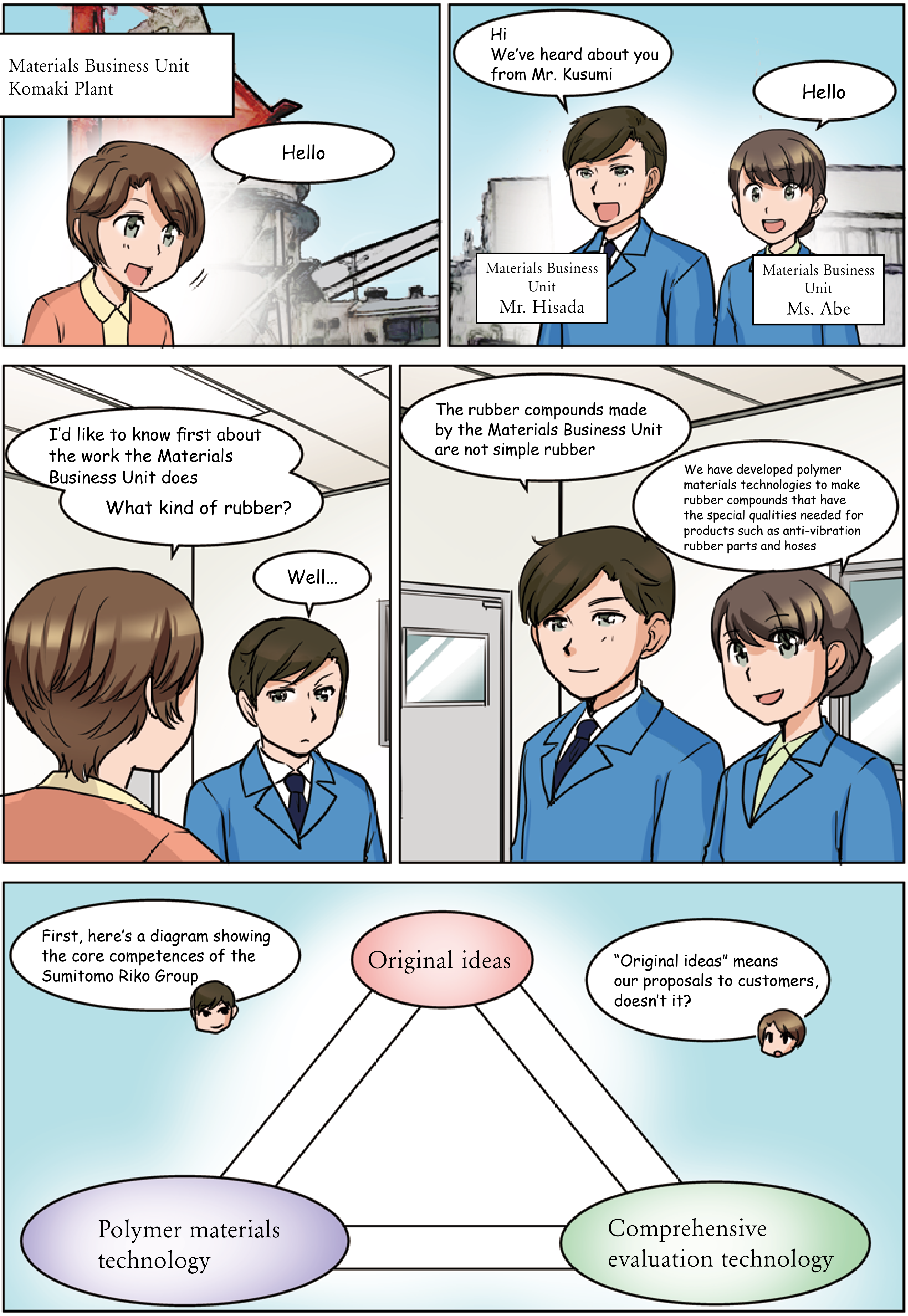
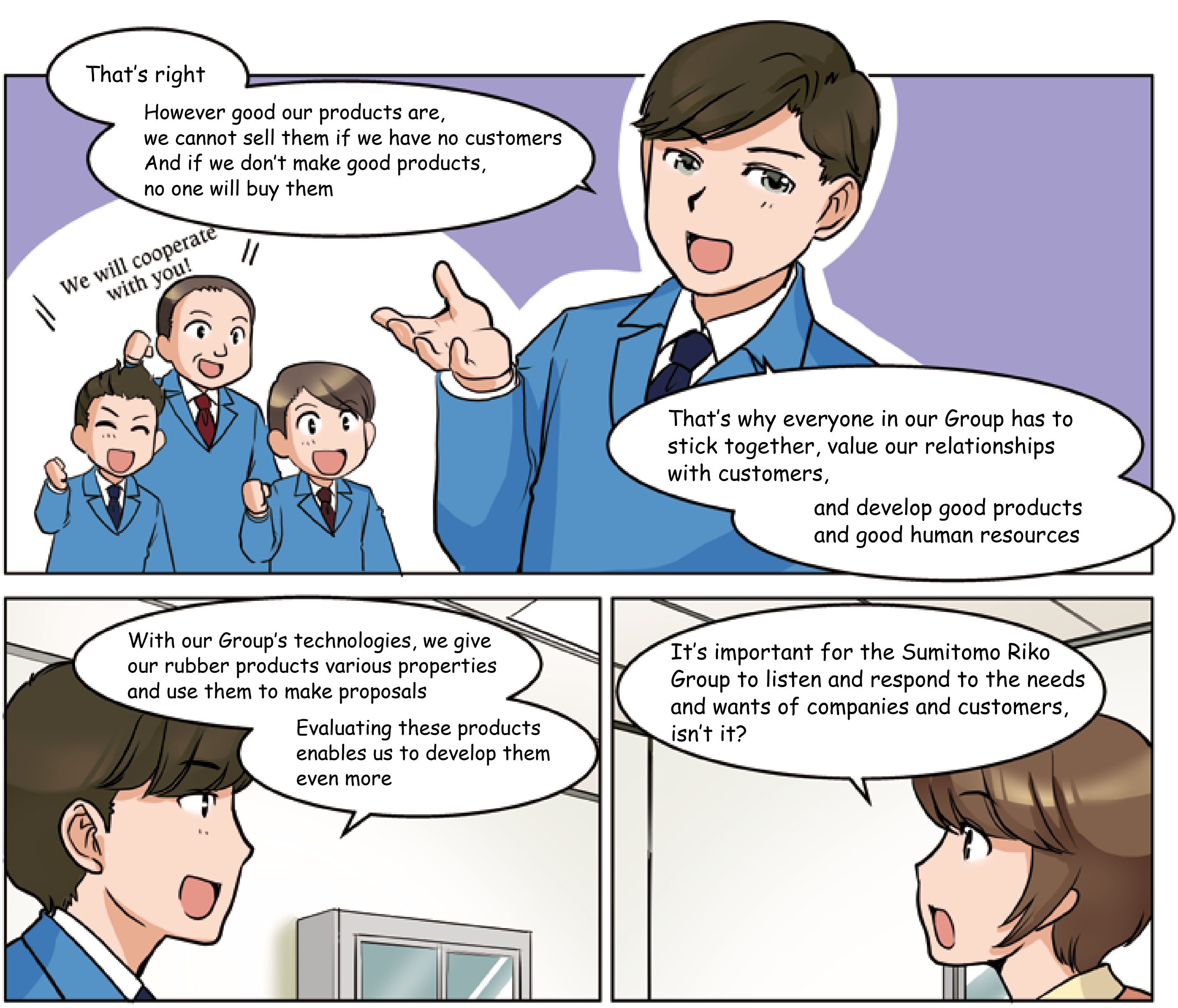
You thought you knew but didn't

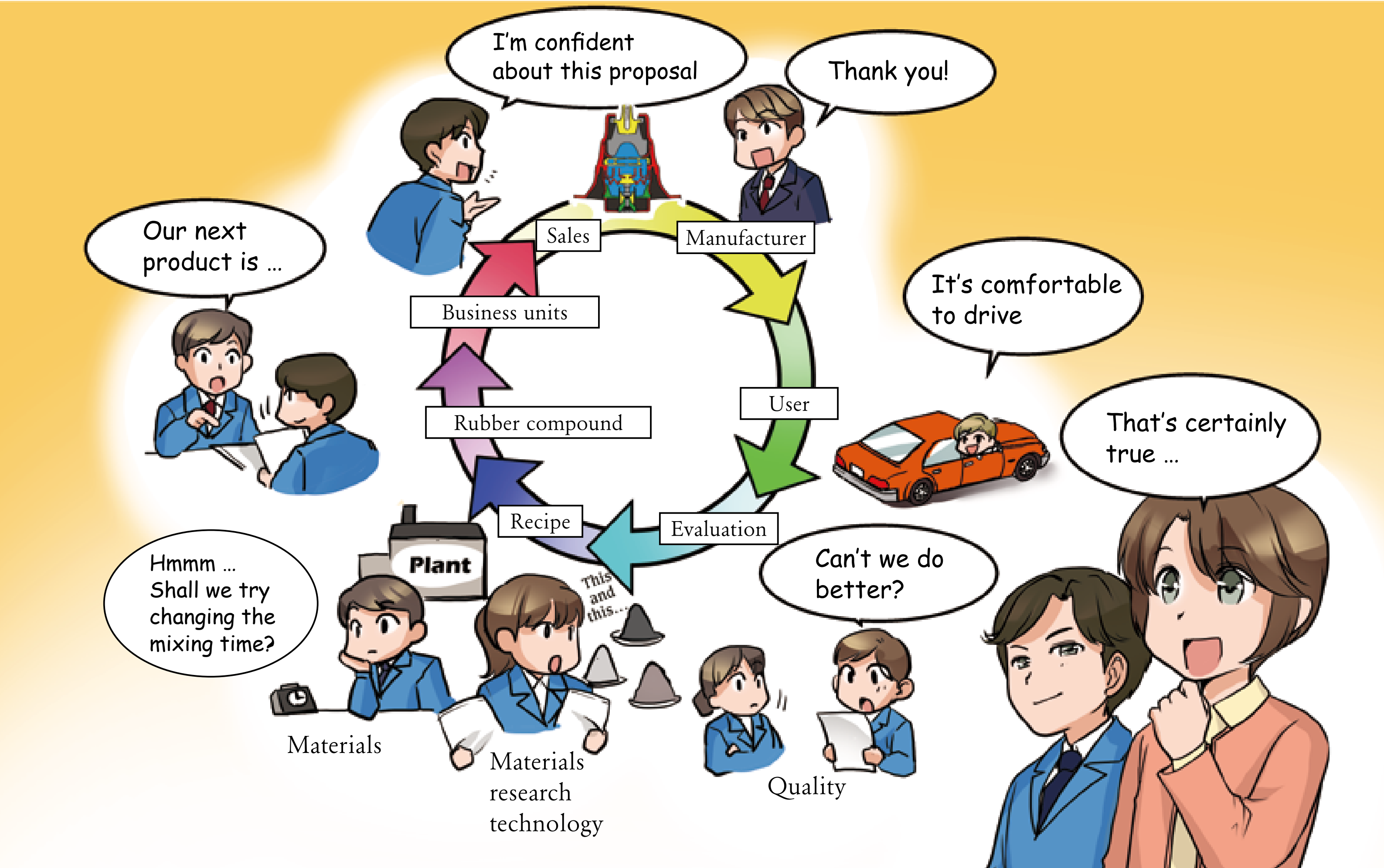
Sumitomo Riko's Business

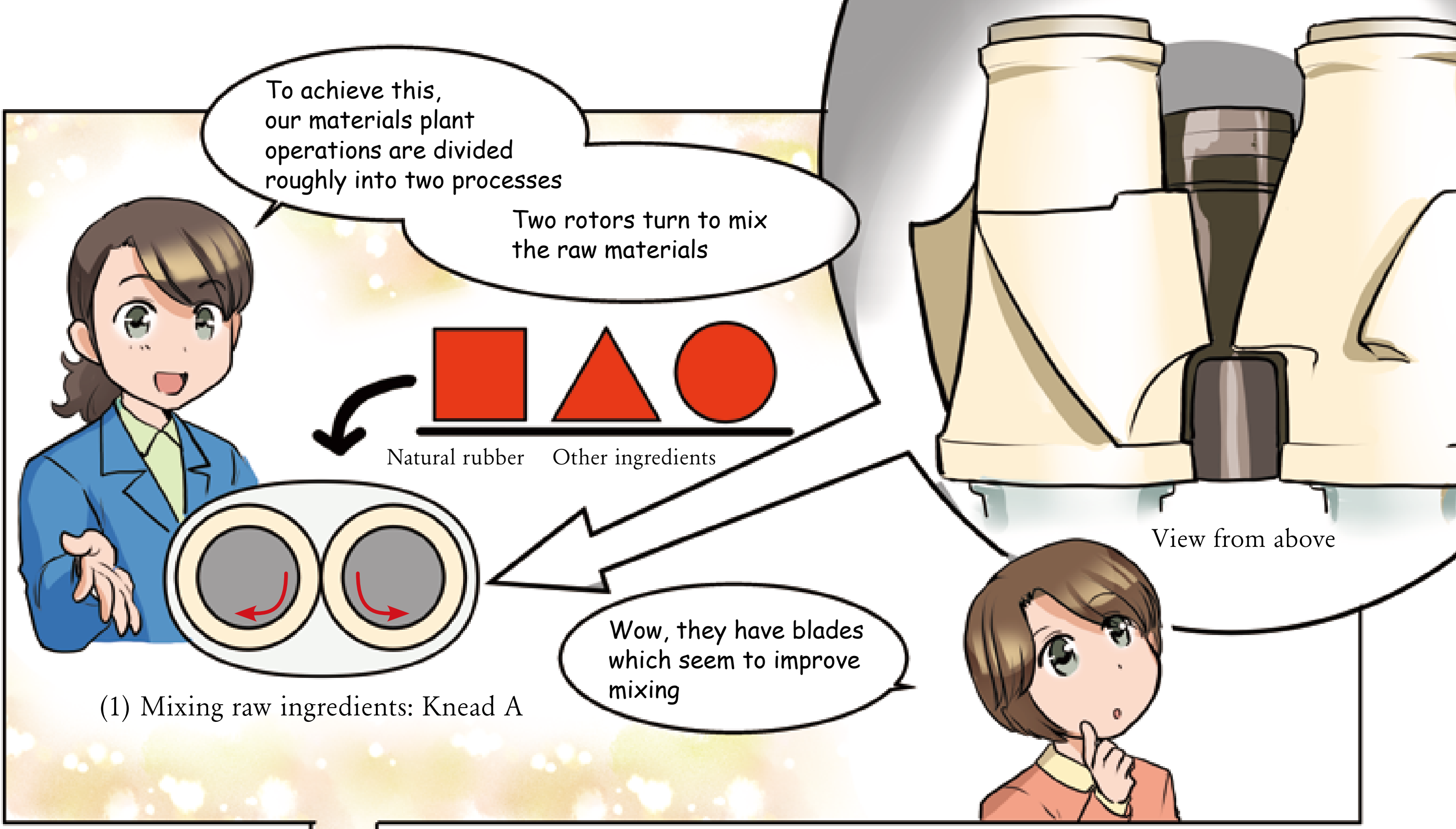
Episode 16 (Final Episode): Materials

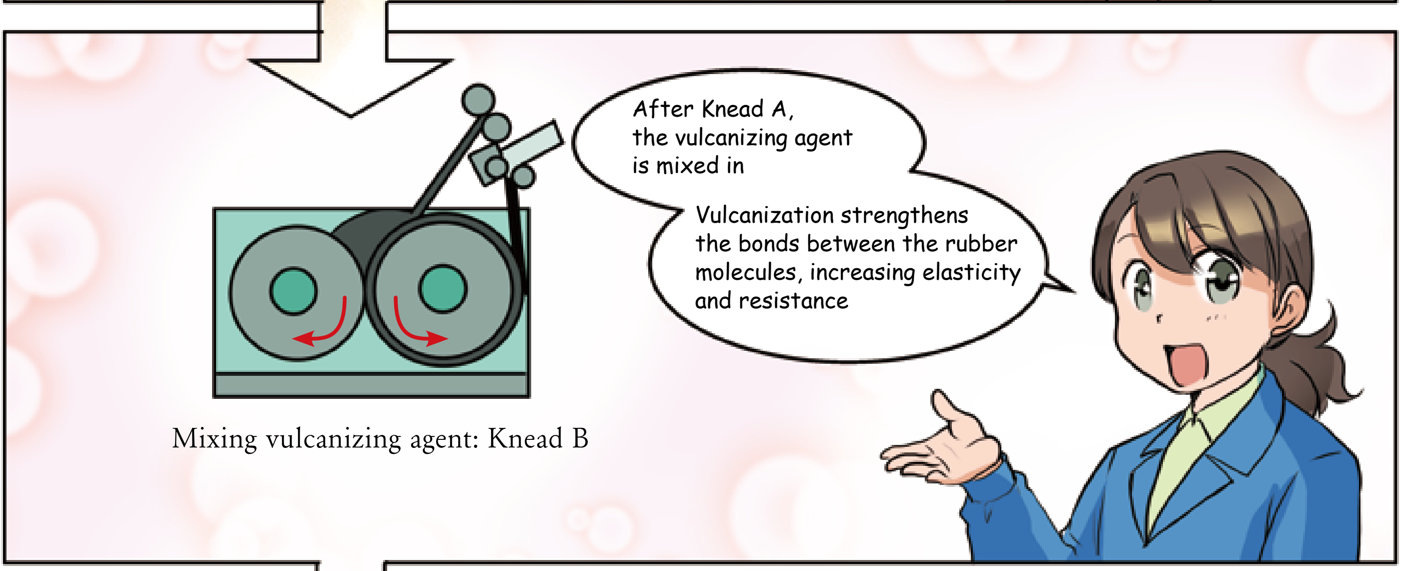

Public Relations Dept., Sumitomo Riko
Oh,
yes, about that matter …
Ahhh…
Slide
Ahhh… I'm tired
Oh, Ms. Tomoi, what's the matter?
Public Relations Dept. Ms. Tomita
Delicious!
Huh?
Remembering days gone by
Mr. Kusumi is so heartless
He treats me like pawns … 18 months have passed without me noticing!
Ms. Tomoi, this will be your very last data gathering assignment, the Materials Business Unit
What?
But I thought I'd finished at last! Materials … You mean materials for our products?
Oh dear

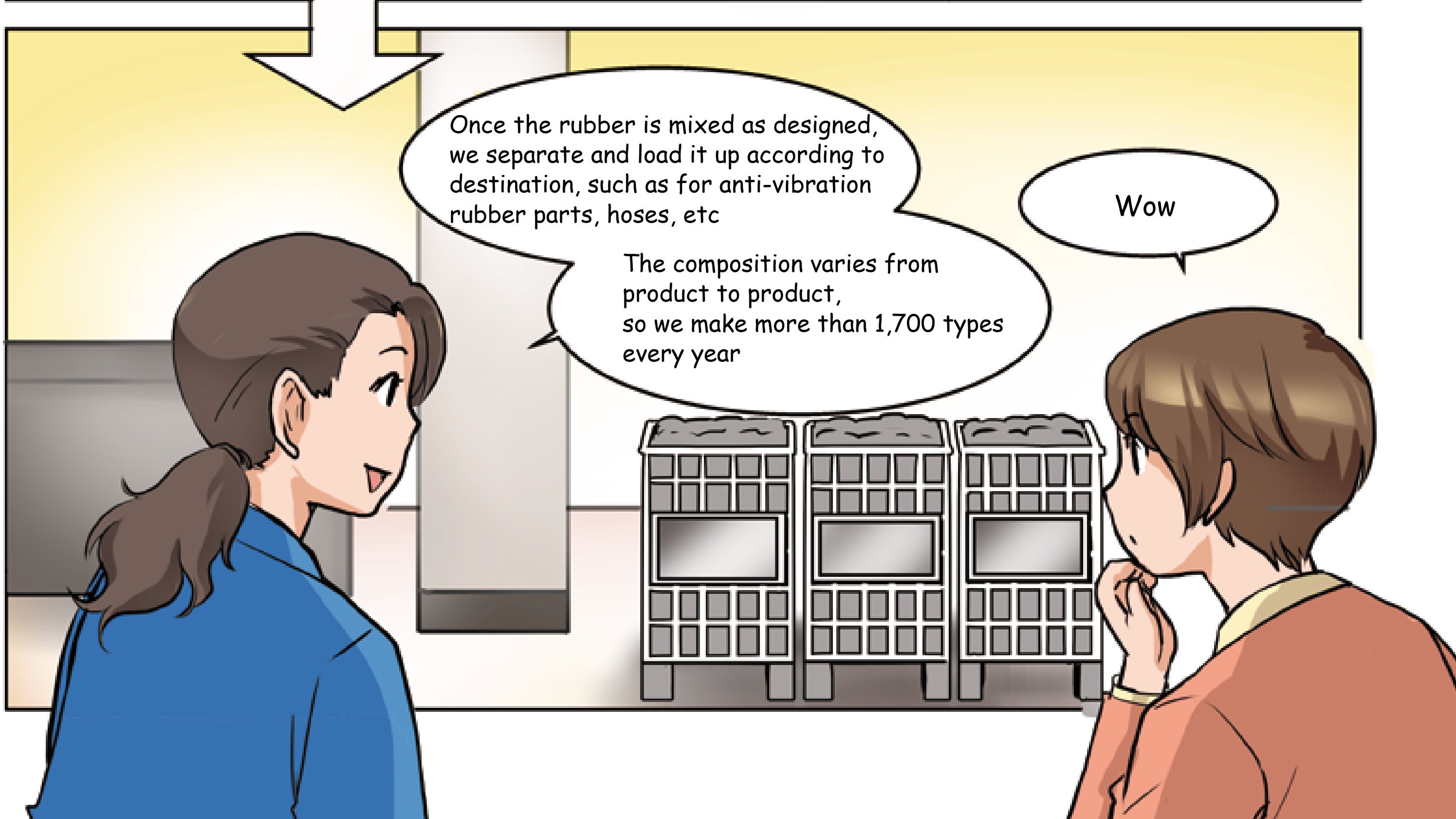

Materials Business Unit Komaki Plant
Hello
Hi We've heard about you from Mr. Kusumi
Materials Business Unit Mr. Hisada
Hello
Materials Business Unit Ms. Abe
I'd like to know first about the work the Materials Business Unit does
What kind of rubber?
Well...
The rubber compounds made by the Materials Business Unit are not simple rubber
We have developed polymer materials technologies to make rubber compounds that have the special qualities needed for products such as anti-vibration rubber parts and hoses
First, here's a diagram showing the core competences of the Sumitomo Riko Group
Original ideas
"Original ideas" means our proposals to customers, doesn't it?
Polymer materials technology
Comprehensive evaluation technology

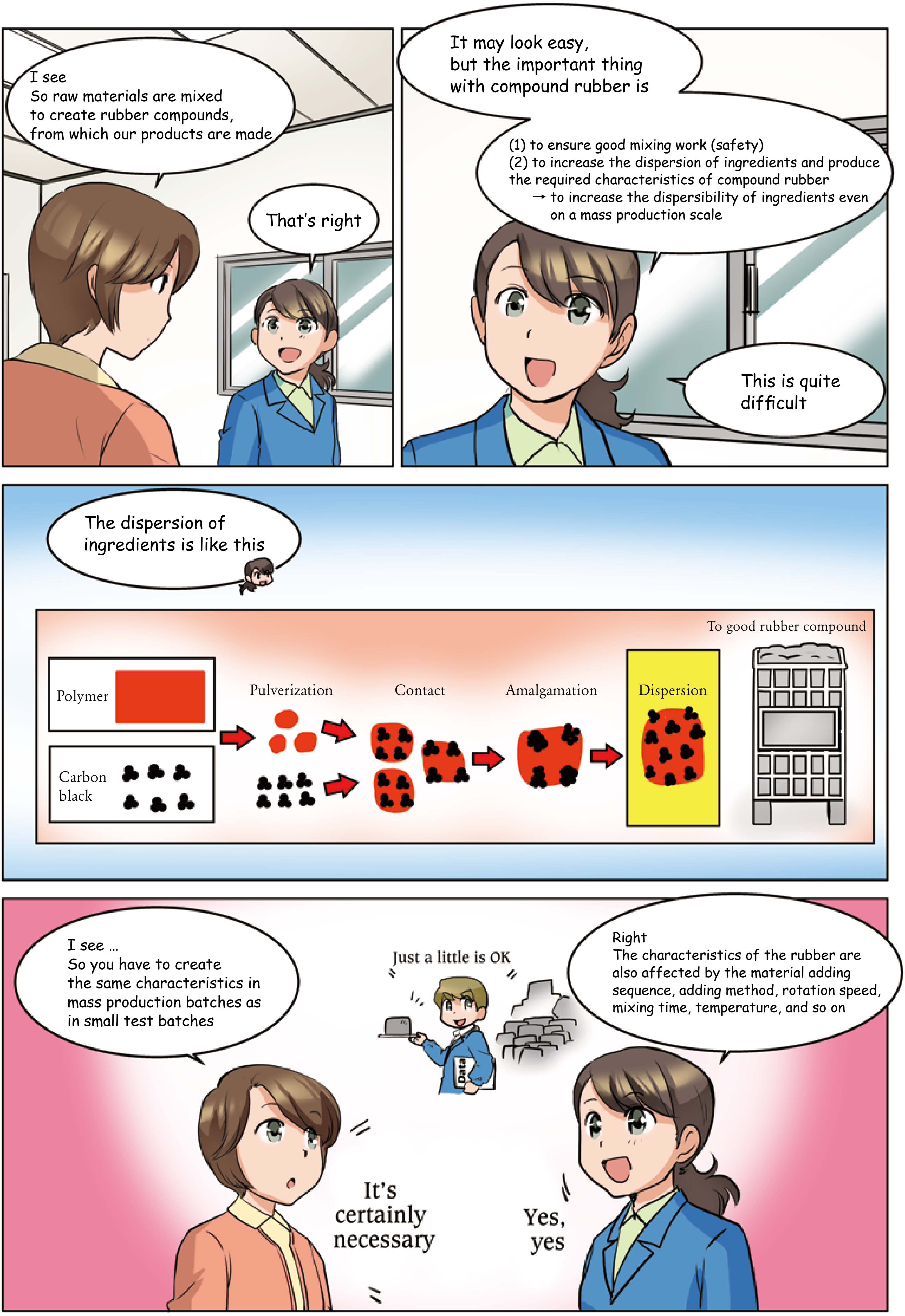

That's right
However good our products are, we cannot sell them if we have no customers
And if we don't make good products, no one will buy them
We will cooperate with you!
That's why everyone in our Group has to stick together, value our relationships with customers,
and develop good products and good human resources
With our Group's technologies, we give our rubber products various properties and use them to make proposals
Evaluating these products enables us to develop them even more
It's important for the Sumitomo Riko Group to listen and respond to the needs and wants of companies and customers, isn't it?

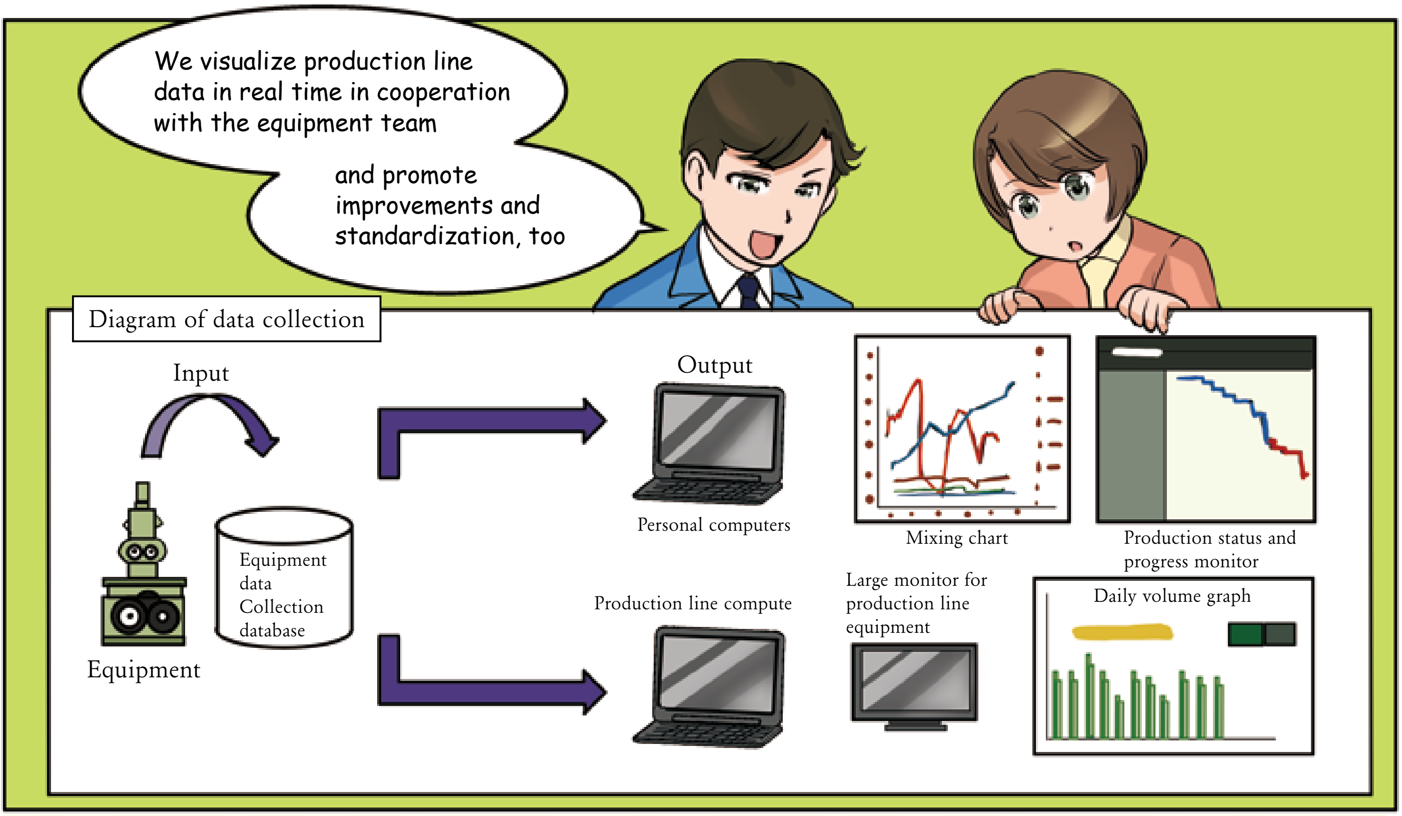

I'm confident about this proposal
Thank you!
Our next product is …
Sales
Manufacturer
Business units
It's comfortable to drive
User
Rubber compound
That's certainly true …
Recipe
Evaluation
Plant
This and this…
Hmmm … Shall we try changing the mixing time?
Can't we do better?
Materials
Materials research technology
Quality

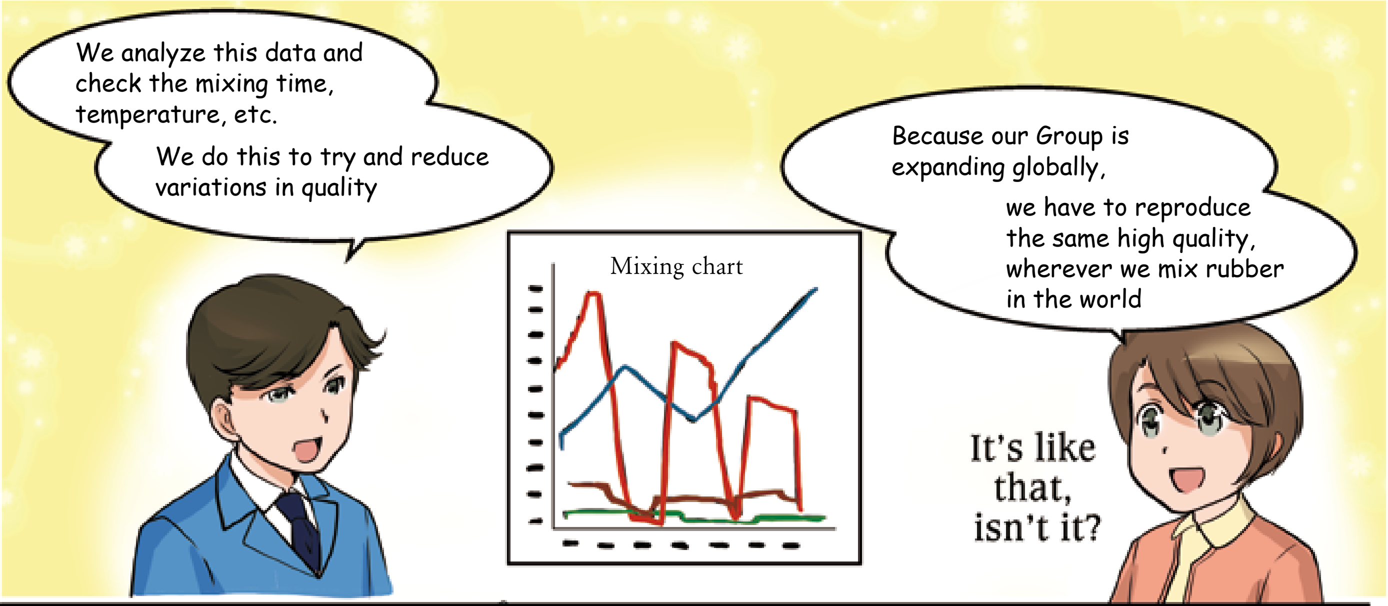

To achieve this, our materials plant operations are divided roughly into two processes
Two rotors turn to mix the raw materials
Natural rubber
Other ingredients
View from above
(1) Mixing raw ingredients: Knead A
Wow, they have blades which seem to improve mixing

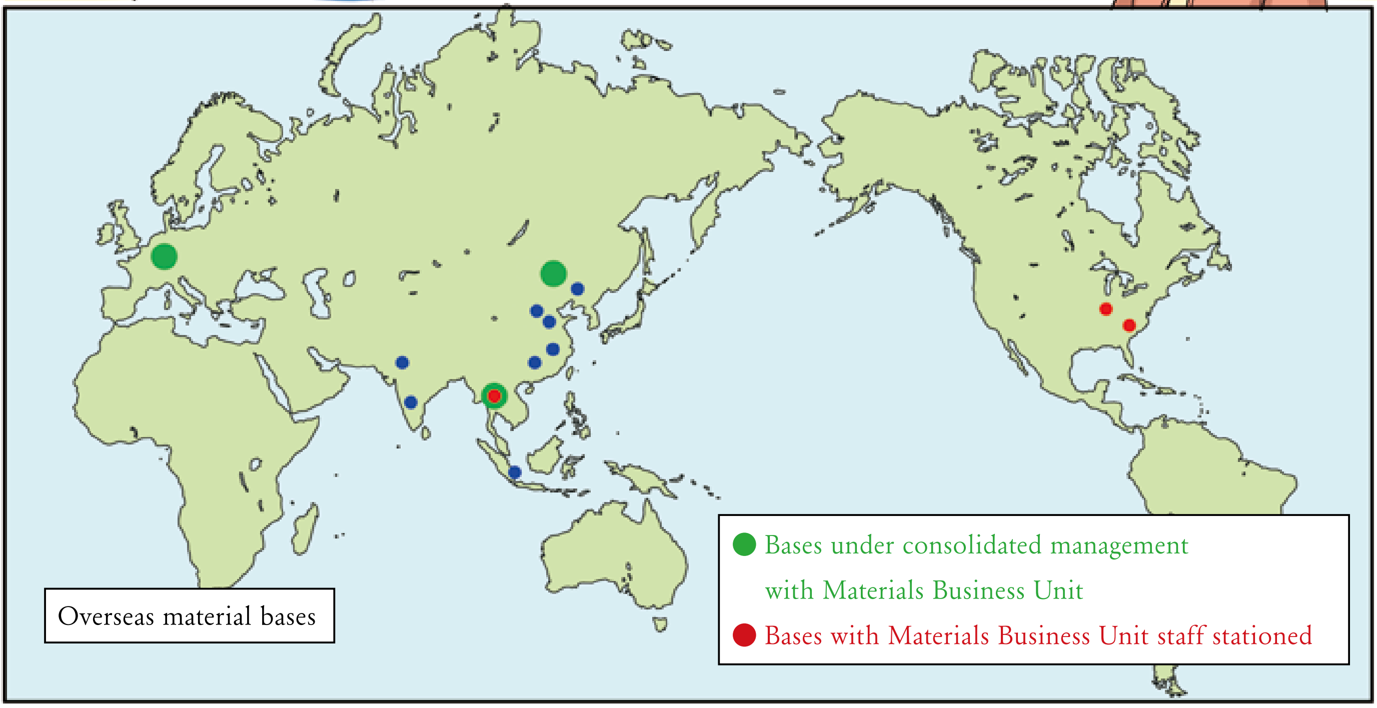

After Knead A, the vulcanizing agent is mixed in
Vulcanization strengthens the bonds between the rubber molecules, increasing elasticity and resistance
Mixing vulcanizing agent: Knead B

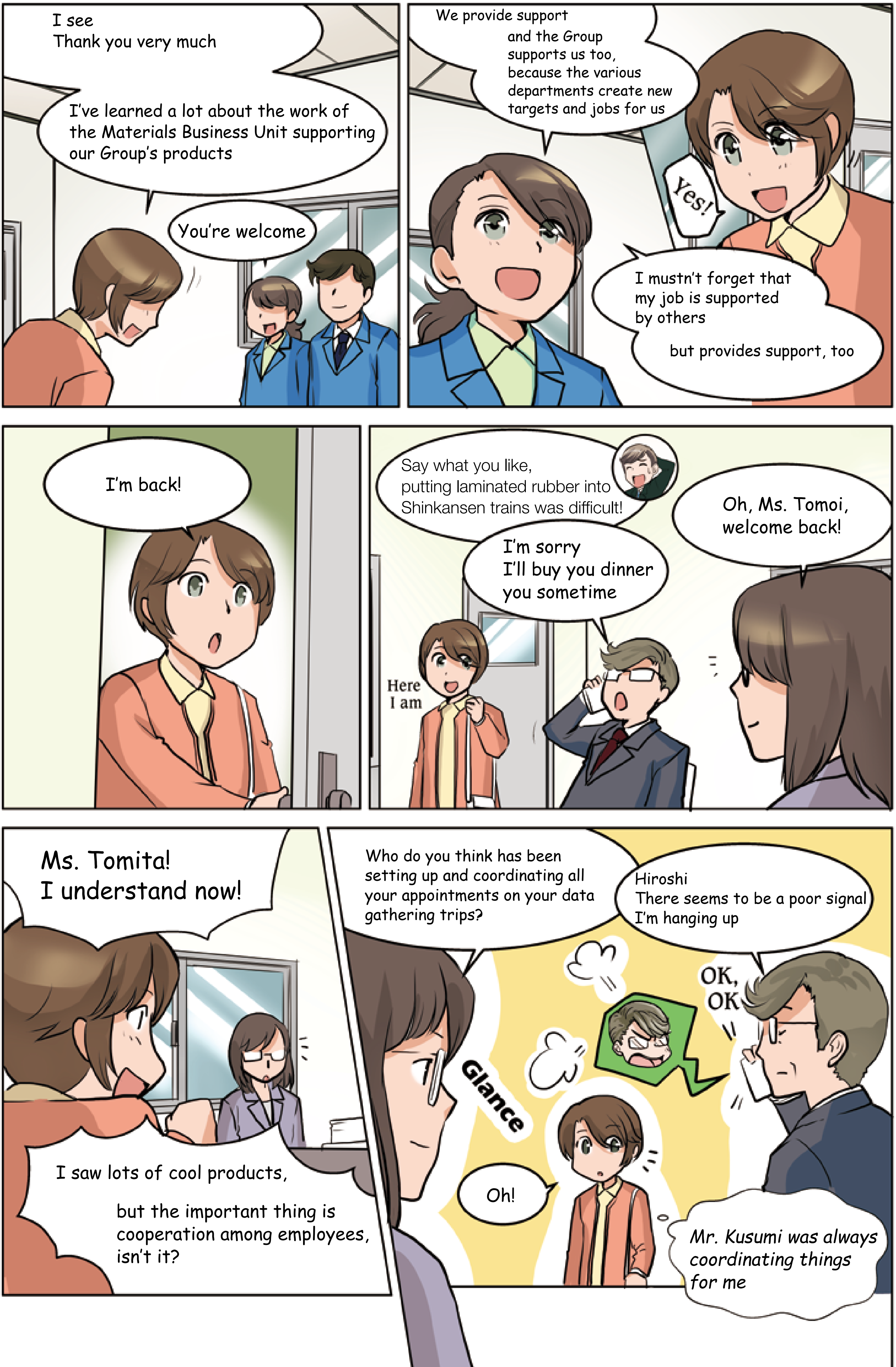

Once the rubber is mixed as designed, we separate and load it up according to destination, such as for anti-vibration rubber parts, hoses, etc
The composition varies from product to product, so we make more than 1,700 types every year
Wow

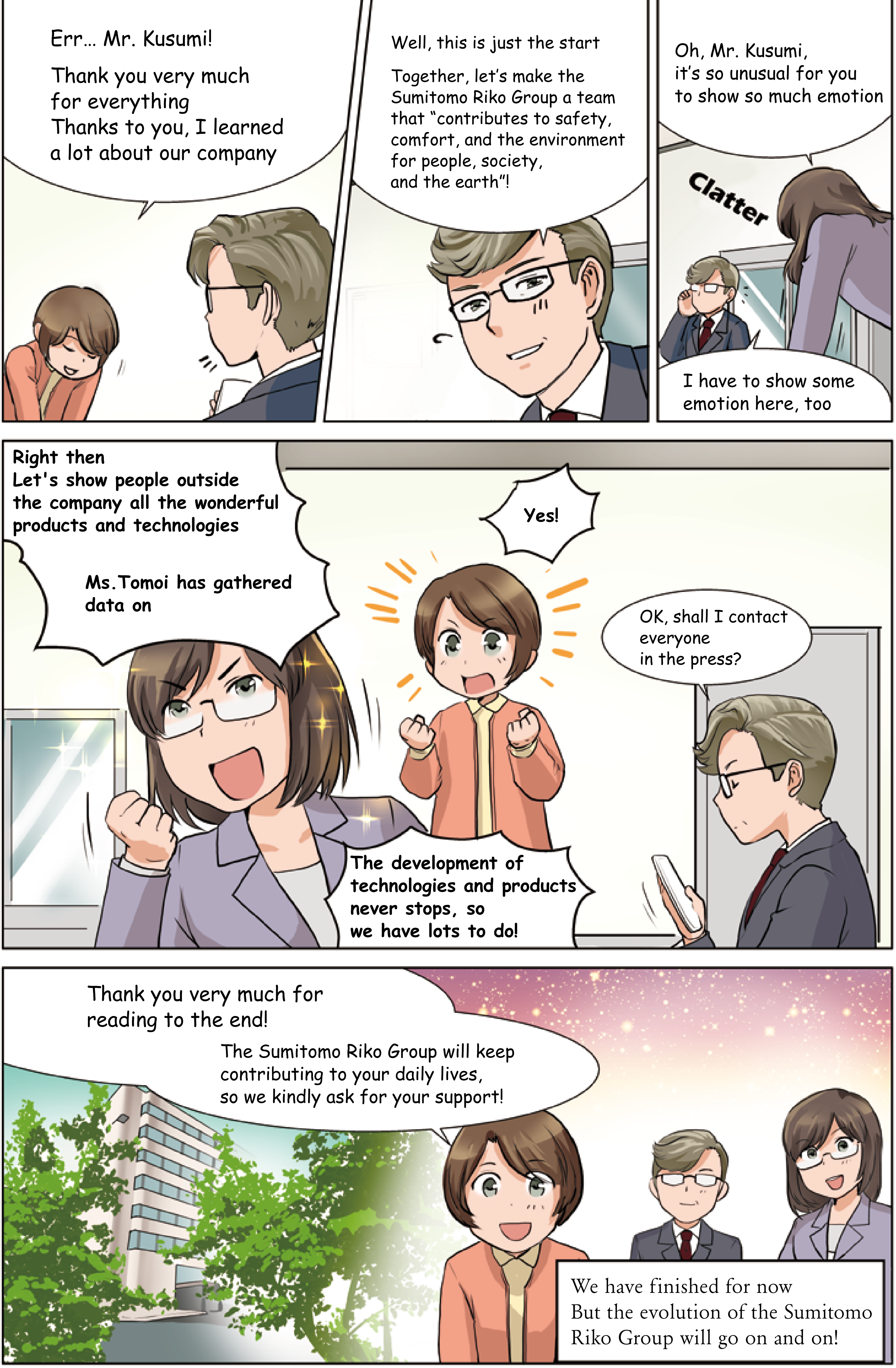

I see
So raw materials are mixed
to create rubber compounds,
from which our products are made
That's right
It may look easy,
but the important thing
with compound rubber is
(1) to ensure good mixing work (safety)
(2) to increase the dispersion of ingredients and produce the required characteristics of compound rubber
→ to increase the dispersibility of ingredients even on a mass production scale
This is quite difficult
The dispersion of ingredients is like this
To good rubber compound
Polymer
Carbon black
Pulverization
Contact
Amalgamation
Dispersion
I see …
So you have to create
the same characteristics in
mass production batches as
in small test batches
Just a little is OK
Data
Right
The characteristics of the rubber are
also affected by the material adding
sequence, adding method, rotation speed,
mixing time, temperature, and so on
It's certainly necessary
Yes, yes


We visualize production line data in real time in cooperation with the equipment team
and promote improvements and standardization, too
Diagram of data collection
Input
Equipment
Equipment data Collection database
Output
Personal computers
Production line compute
Mixing chart
Production status and progress monitor
Large monitor for production line equipment
Daily volume graph


We analyze this data and check the mixing time, temperature, etc.
We do this to try and reduce variations in quality
Mixing chart
Because our Group is expanding globally,
we have to reproduce the same high quality, wherever we mix rubber in the world
It's like that, isn't it?


Overseas material bases
● Bases under consolidated management with Materials Business Unit
● Bases with Materials Business Unit staff stationed


I see
Thank you very much
I've learned a lot about the work of the Materials Business Unit supporting our Group's products
You're welcome
We provide support and the Group supports us too, because the various departments create new targets and jobs for us
Yes!
I mustn't forget that my job is supported by others but provides support, too
I'm back!
Say what you like, putting laminated rubber into Shinkansen trains was difficult!
Oh, Ms. Tomoi, welcome back!
I'm sorry I'll buy you dinner you sometime
Here I am
Ms. Tomita! I understand now!
I saw lots of cool products, but the important thing is cooperation among employees, isn't it?
Who do you think has been setting up and coordinating all your appointments on your data gathering trips?
Hiroshi There seems to be a poor signal I'm hanging up
OK, OK
Glance
Oh!
Mr. Kusumi was always coordinating things for me


Err… Mr. Kusumi!
Thank you very much for everything
Thanks to you, I learned a lot about our company
Well, this is just the start
Together, let's make the Sumitomo Riko Group a team that "contributes to safety, comfort, and the environment for people, society, and the earth"!
Oh, Mr. Kusumi, it's so unusual for you to show so much emotion
Clatter
I have to show some emotion here, too
Right then
Let's show people outside the company all the wonderful products and technologies
Ms.Tomoi has gathered data on
Yes!
OK, shall I contact everyone in the press?
The development of technologies and products never stops, so we have lots to do!
Thank you very much for reading to the end!
The Sumitomo Riko Group will keep contributing to your daily lives, so we kindly ask for your support!
We have finished for now
But the evolution of the Sumitomo Riko Group will go on and on!