Coffee Talk with Gesa & Sebastian



Please tell us about yourself, who are you and what do you do? Hello, we are Gesa, sustainable business developer, and Sebastian, molecular data scientist – the team of Circuteria. We are a platform that helps companies to find the best sustainable material for their needs.

How did your journey towards sustainability begin and how did you come up with the

initial idea? Whilst working in the 3d printing industry, Gesa discovered that many of her customers wanted to switch from fossil-based to sustainable materials, but often simply didn't know how to do this. With Circuteria, stakeholders along the circular bioeconomy can replace their fossilbased resources with sustainable alternatives (see diagram). By sharing sustainability knowledge and matching supplies with demands, the platform helps to predict and optimize new circular value chains.

What are the biggest challenges you face? Our biggest challenge was and still is to reduce the complexity our customers face when searching for sustainable materials. For example, it is easier to find sustainable "Drop-In" materials whose properties are supposed to exactly match the ones of their fossil-based counterparts. However, for all other sustainable materials, this search is much more difficult to achieve because we have

to consider materials both in the finished product as well as the production steps.

What is a possible future for your initiative? Where do you want to be within five years? We are still currently at a stage of further platform development and we're getting customers excited about using Circuteria, so that they are willing to pay. Any support is much appreciated! In five years Circuteria should be the digital platform to go for customers to choose their sustainable materials.

If you have three free wishes, what would you wish for? Firstly, we would like to see more support from governments for the development of bio-based materials and the end of subsidies for petrochemicals. Secondly, we would like to see higher awareness from the end customer about their purchases. Finally, we need better recycling systems for bio-based, especially biodegradable materials.

What do you think we all can do to solve the plastic pollution problem in general? Reuse and recycle as often as you can. Always think twice before you buy a new item if you really need it – for example, whenever you go to a supermarket to buy bread, put it into a large, reusable Tupperware box instead of these single-use plastic bags. Over time, such plastic savings add up!



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м	aterial Parameters			Heat Transfer Simulation
м	aterial Identity	-	PET	Heat Hansler Simulation
D	ensity (kg/m^3)	[1	1200	
Yo	oung Modulus (Mp	a) [1	1400	
P	oisson Ratio	[0.35	
Thermal Conductivity (W/m/K)		ty (W/m/K)	0.15	
Expansion Coeffcient (mum/m/K)			90	
Specific Heat (J/kg/K)				
S	pecific Heat (J/kg/	K) [1	1500	
S	becific Heat (J/kg/ Find	K) [1 Best Plastic Ma	1500 terial	
S	pecific Heat (J/kg/ Find	K) 1 Best Plastic Ma	terial	
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Insights about the project

"Circuteria – Let's Go Circular" by Gesa Schneider, Dr. Sebastian Stolzenberg, Germany



Circuteria is a platform that connects all stakeholders along the circular economy, matches supplies with demands and shares sustainability knowledge.