

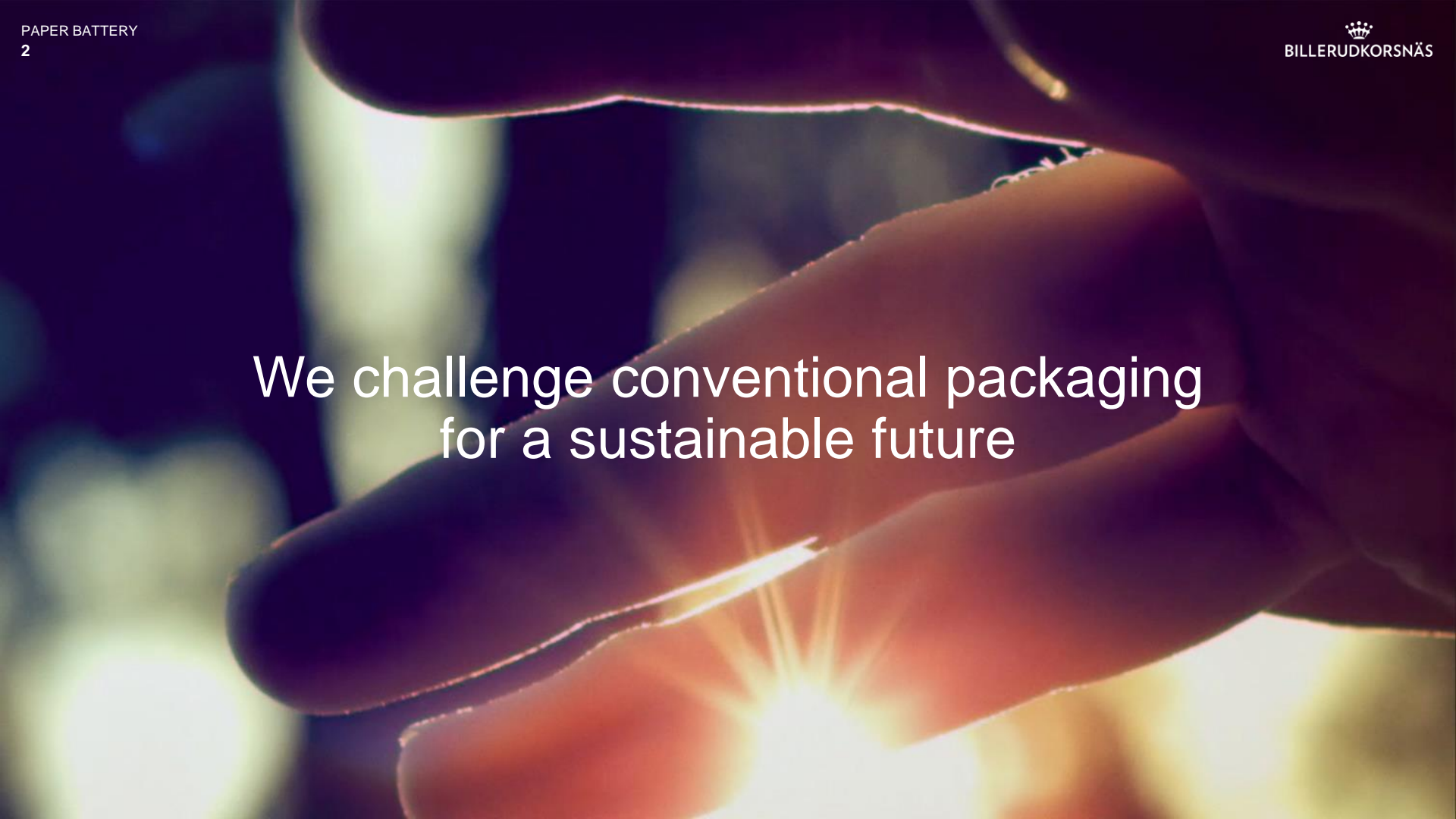


BILLERUDKORSNÄS

WHAT IF
paper could power
the future packaging?

2018-11-21

Shoko Yamada, PhD, Specialist Functional Surfaces

A close-up photograph of a hand holding a small, glowing paper battery. The battery is held between the thumb and index finger, and it emits a bright, warm light that creates a lens flare effect. The background is dark and out of focus, with some blurred light sources.

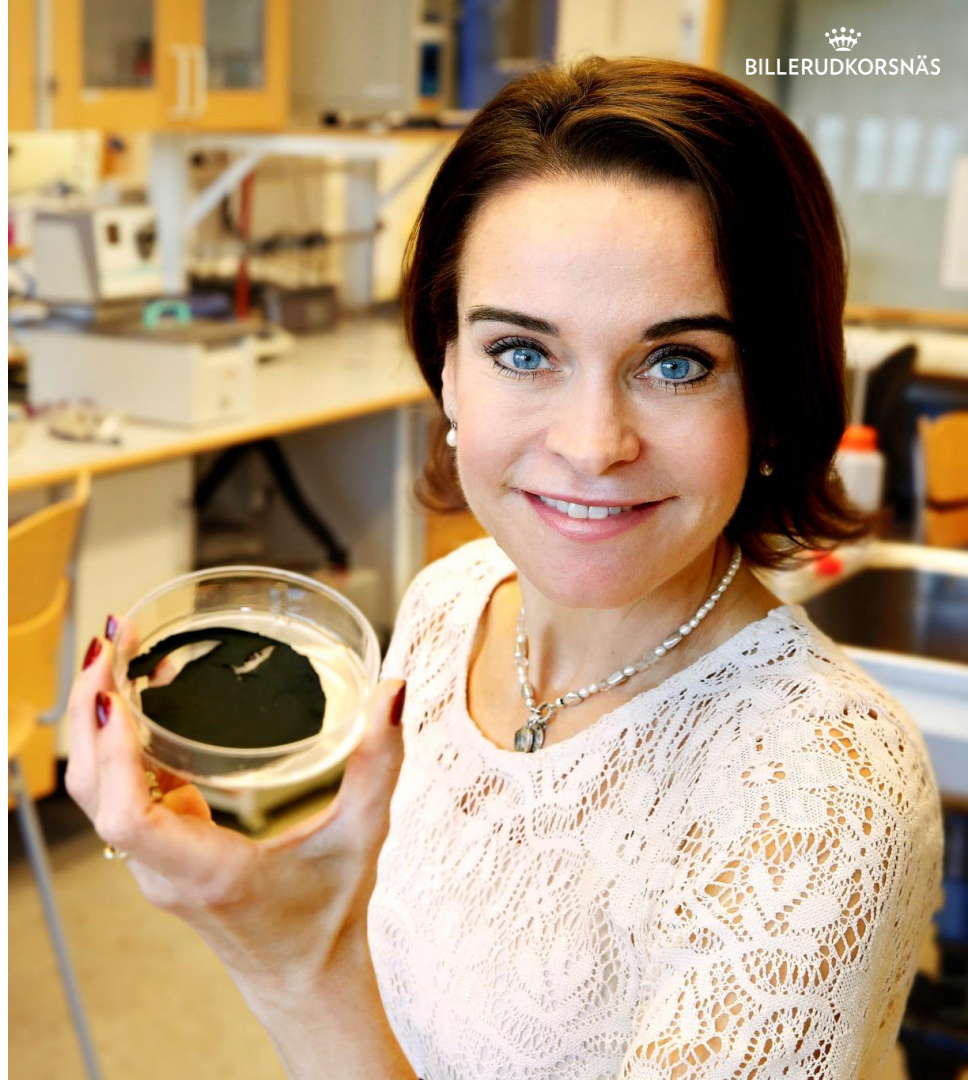
We challenge conventional packaging
for a sustainable future

The paper battery project

A joint innovation platform between
Uppsala University and BillerudKorsnäs

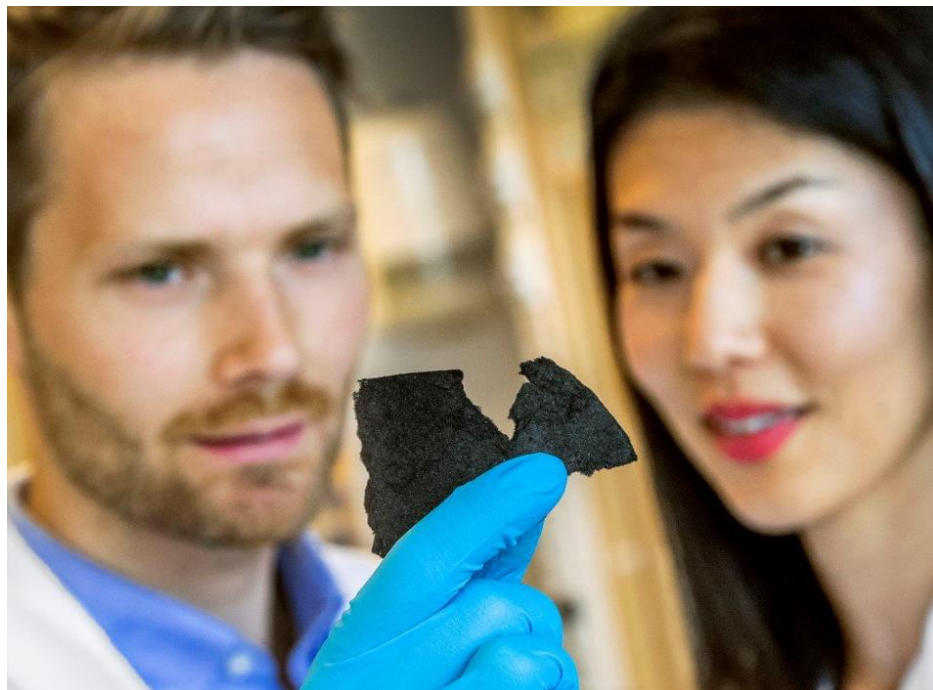
Maria Strømme

Professor in nanotechnology
at Ångström Laboratory,
Uppsala University.



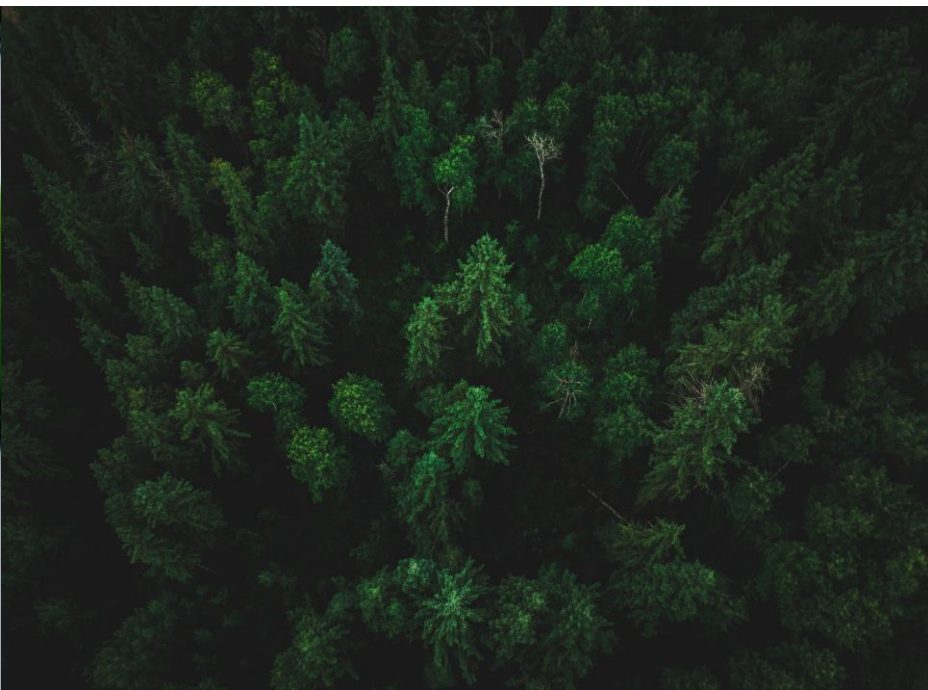
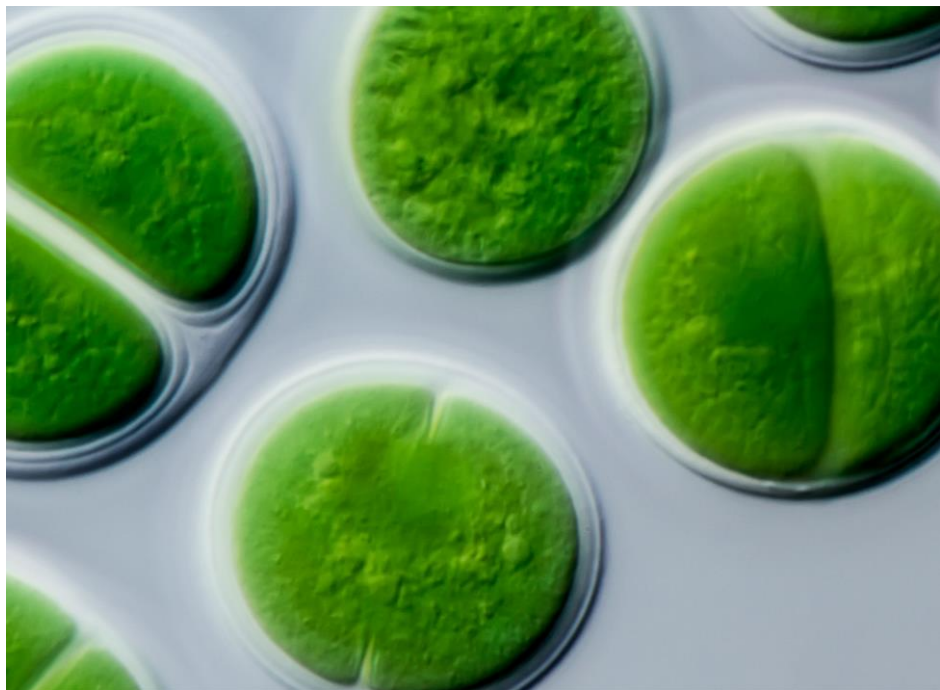
Combining the best of two worlds

Deep research expertise with innovation and production know-how



From the sea to the growing forest

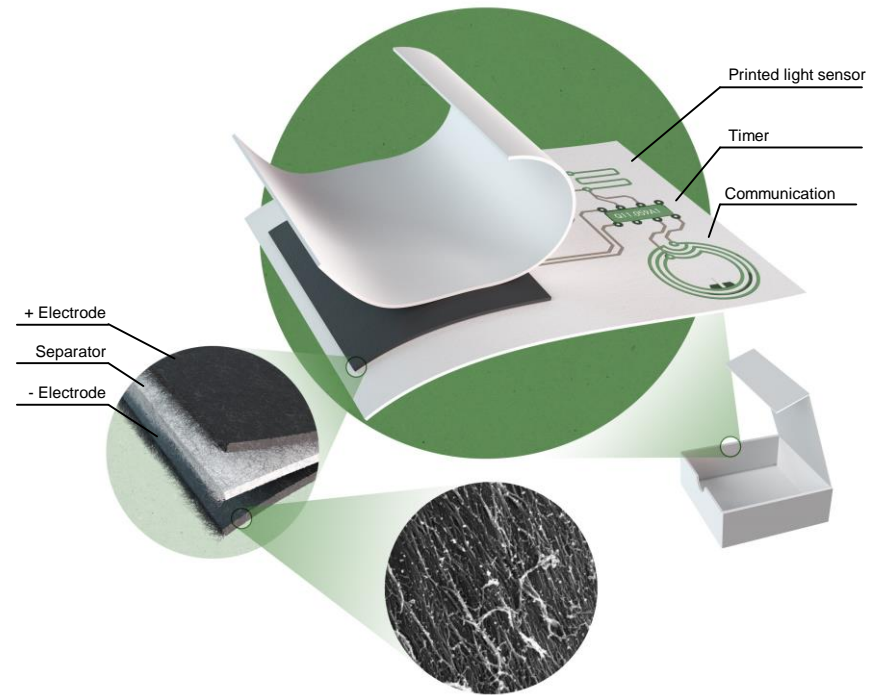
Exploring the ideal fibre source for electrode scale production





A paper battery is a power source using nanotechnology to store electricity in a cellulose fibre material.

- ⌚ A sustainable choice compared to traditional batteries
- ⌚ Free from toxic components
- ⌚ Superfast charge / discharge
- ⌚ Can be folded, cut and shaped



What if we could scale up production to enable future possibilities?

ENABLING FUTURE POSSIBILITIES:

Ensuring compliance
and improving safety
to safeguard quality
of pharmaceuticals.





ENABLING FUTURE POSSIBILITIES:

Creating smart
packaging, indirect
and real-time tracking
to optimise supply
chain logistics.

ENABLING FUTURE POSSIBILITIES:

Checking content quality
and promoting FMCG
packaging interaction to
improve usage and
minimise food waste.





Next step, focus
on production and
collaboration




Naturally,
there are more
opportunities.




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An aerial photograph of a dense forest of tall, thin evergreen trees. The forest is shrouded in a thick, white mist or fog, which is most prominent in the upper half of the image, creating a soft, ethereal atmosphere. The trees in the foreground are darker and more detailed, while those in the background fade into the mist. The overall color palette is dominated by various shades of green and white.

To remember:
The future of sustainable
power grows in the forest.



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Thank you!

