

# Excillum AB

**Disruptive High End X-ray sources: Design, Development, Manufacturing**

Contact: Simona Laza

Organisation: Excillum AB

E-mail: [simona.laza@excillum.com](mailto:simona.laza@excillum.com)

# Company at a glance

- Based in Stockholm, Sweden
- Founded 2007
- 80 employees, 55% in R&I
- Sales: 12 M€
- R&I expenses: 25% of sales
- Partner in collaborative projects:  
KDT JU & ECSEL JU (HICONNECTS, 14ÅCMOS, MADEin4),  
EUREKA CLUSTERS (FA4.0), EUROSTARS, Horizon2020, EMPIR,  
SME instrument, FP7, National grants (VINNOVA)
- AENEAS board

Stockholm



R&D



Office



Production



# Competences & Products

ECS  
BROKERAGE  
EVENT

Entirely devoted to advanced microfocus and nanofocus X-ray sources

## MetalJet

World's brightest microfocus X-ray source [\(see white paper\)](#)

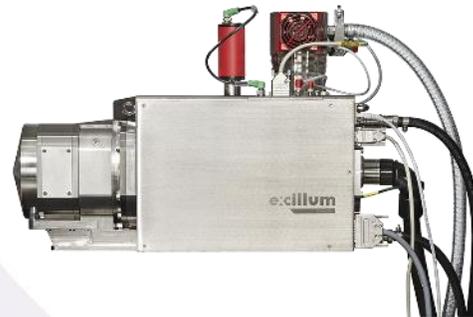
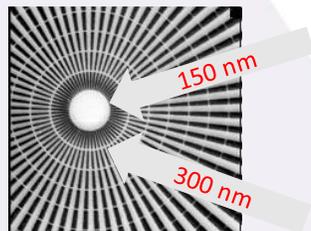
Liquid metal-jet anode & advanced electron beam technologies



## NanoTube

World's smallest X-ray nanospot

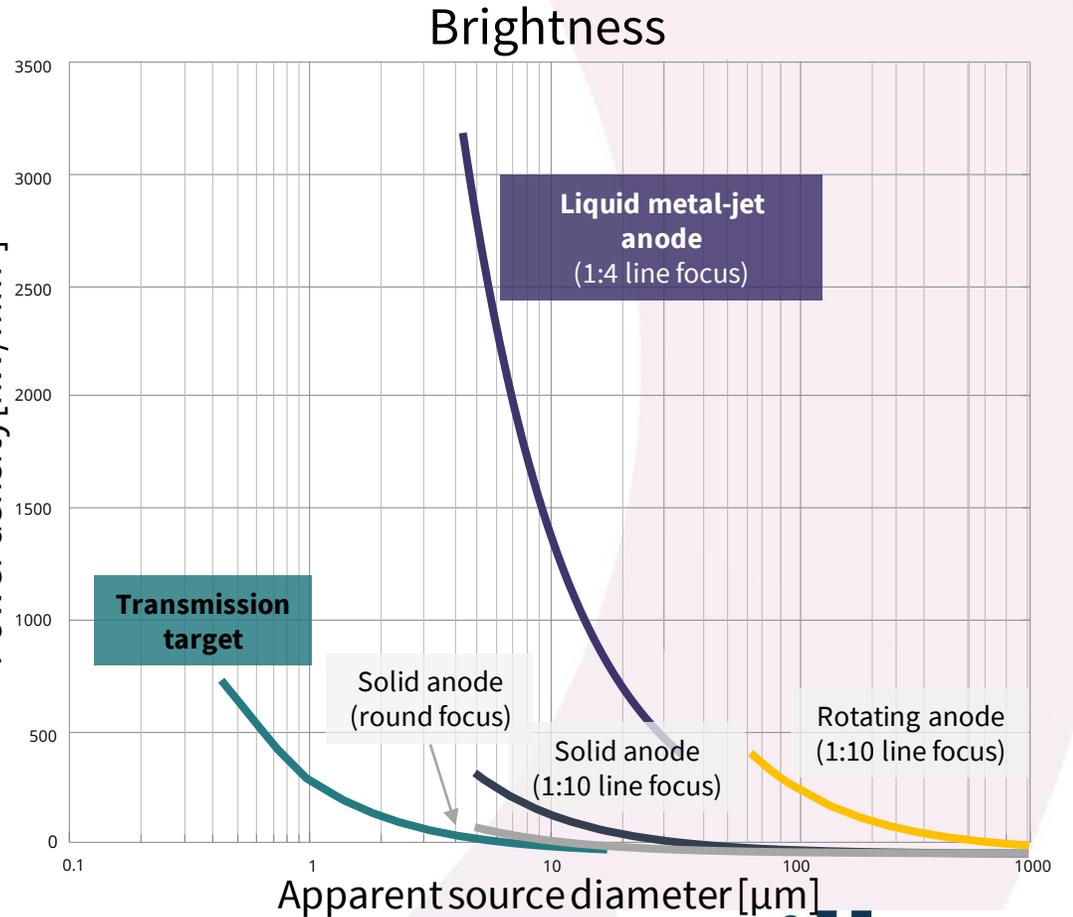
Advanced electron beam technology



Higher inspection speed



Power density [kW/mm<sup>2</sup>]



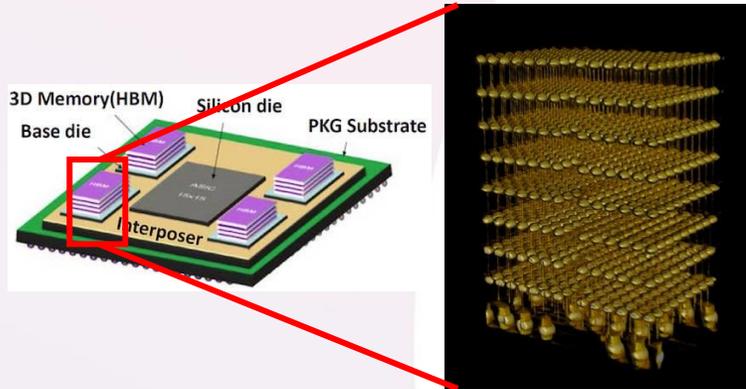
Higher resolution



EXCILLUM CONFIDENTIAL

# X-ray sources for 3D challenges in Advanced Packaging

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State of the art X-ray source

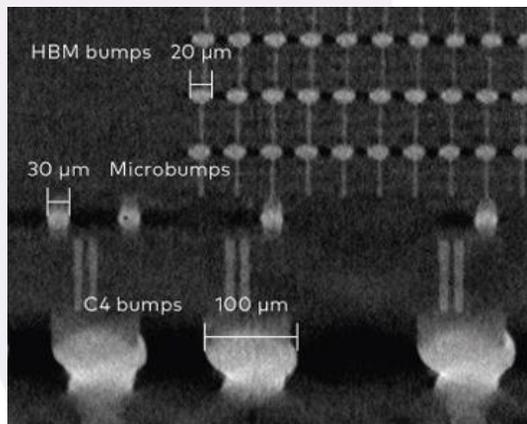
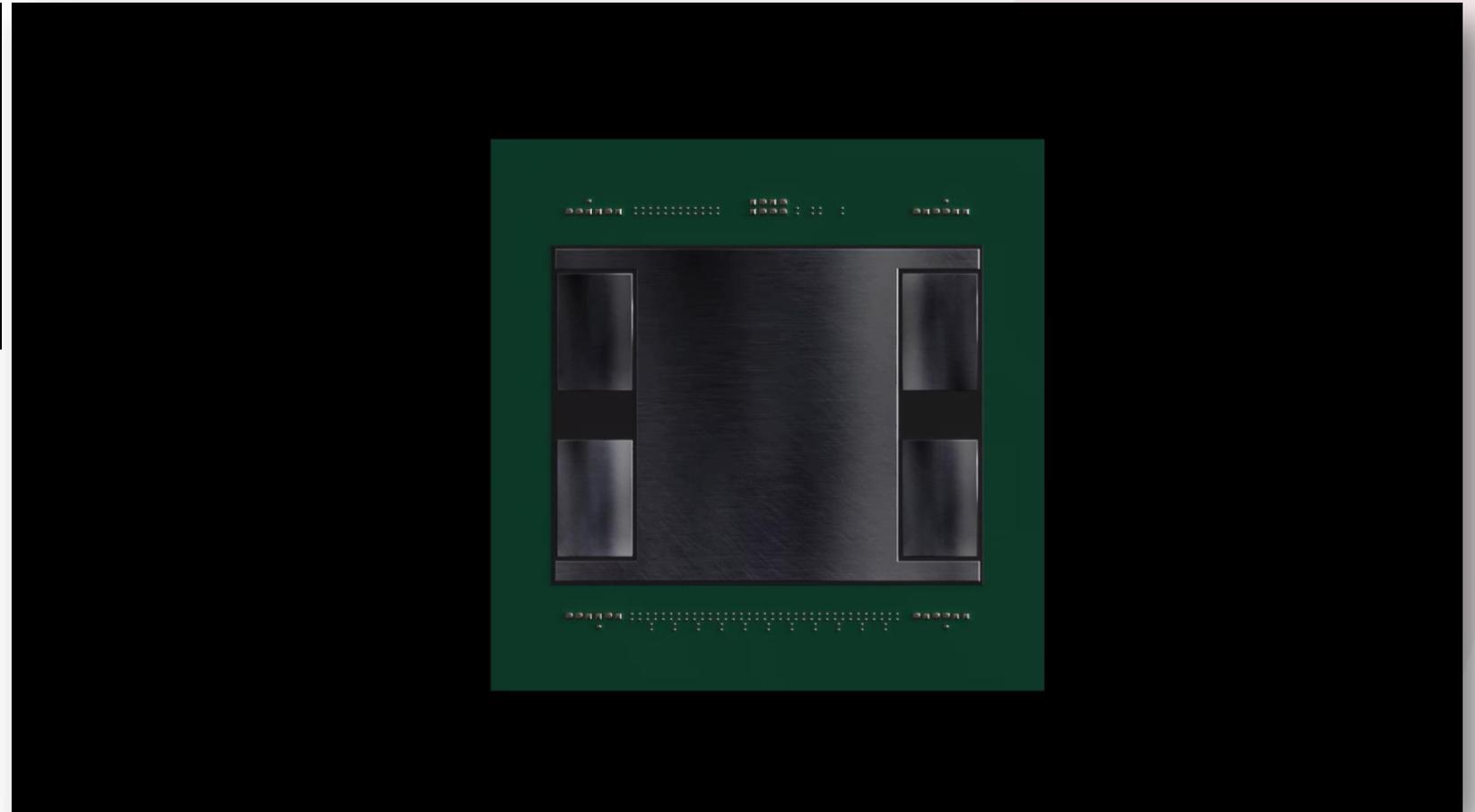


Image copyright

<https://xlon.comet.tech/en/products/ca20>

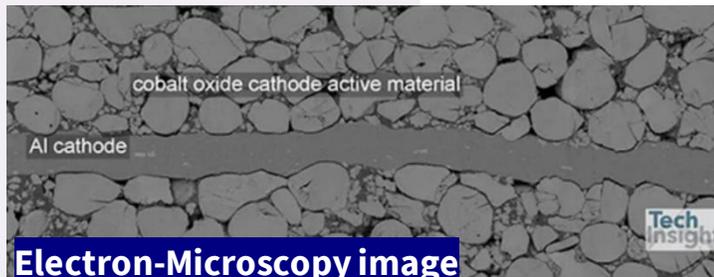
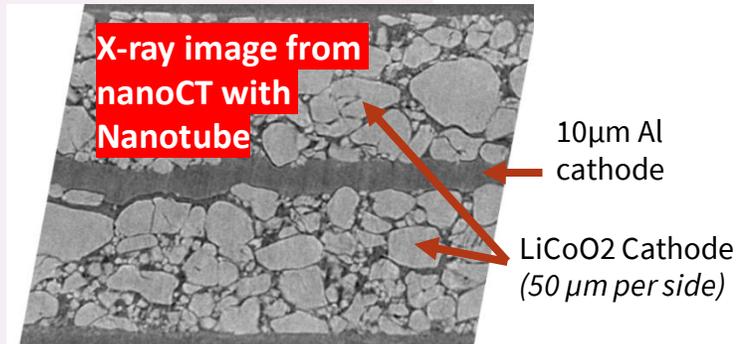


# X-ray sources for Battery cell & cathode inspection



1s X-ray CT of EV battery cell with MetalJet

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**Electron-Microscopy image**

**Image copyright - Tech Insights:**

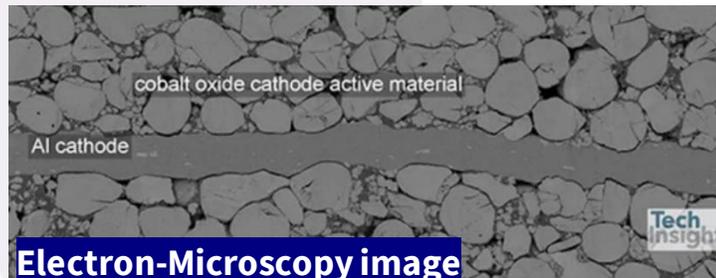
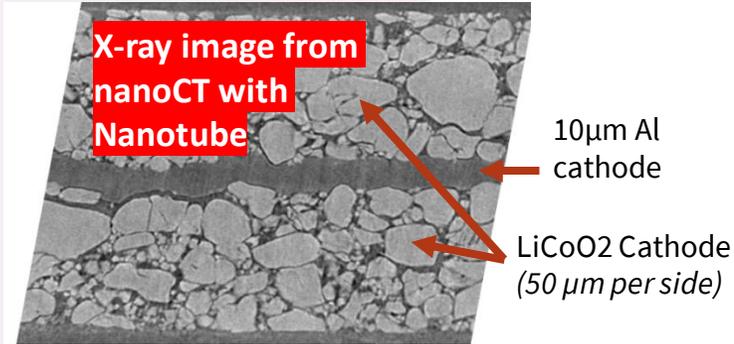
<https://www.techinsights.com>

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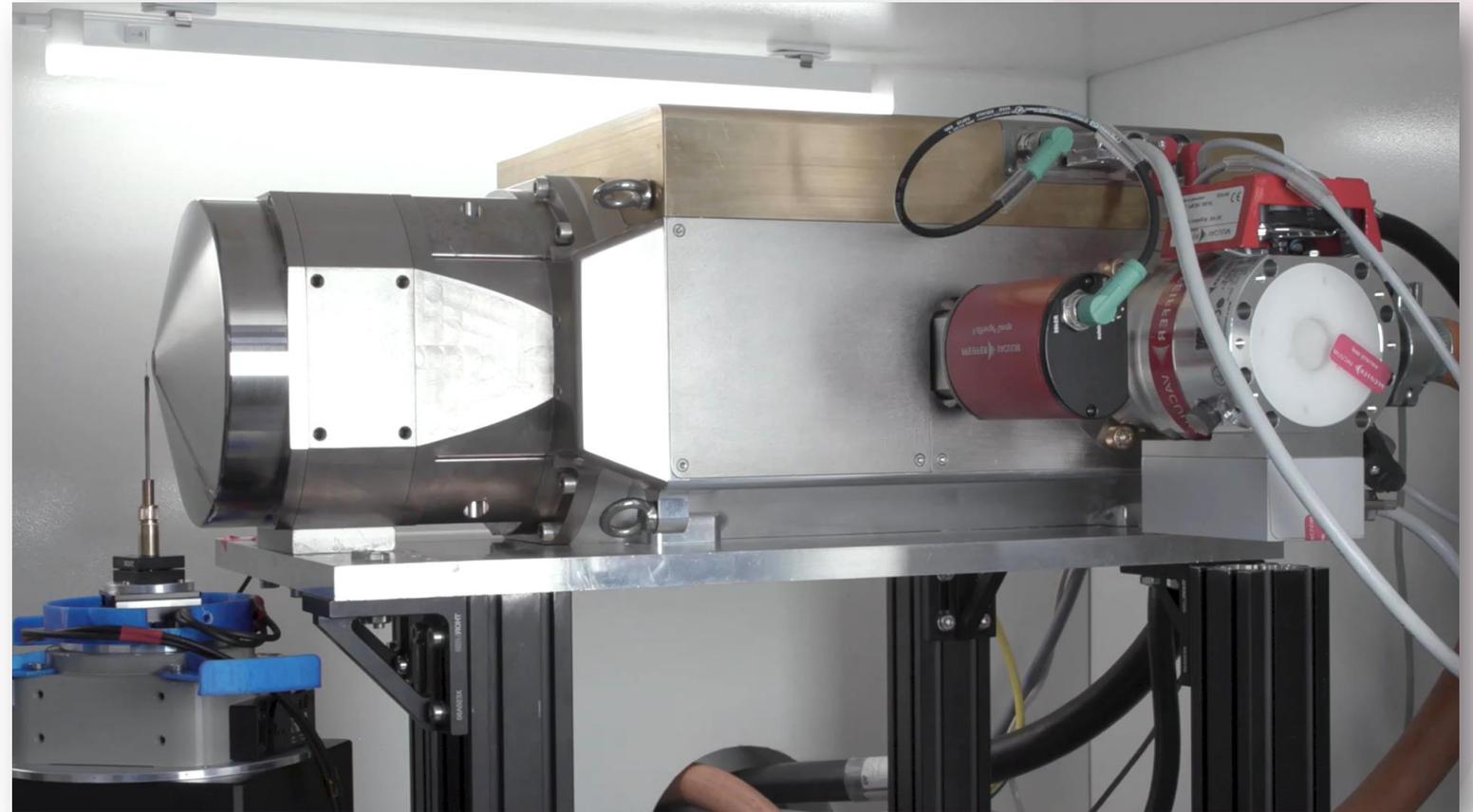
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**EVENT**



Electron-Microscopy image

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# Collaboration Expectations

Collaborative project of interest to you	<i>Chips JU, Eureka clusters, Eurostars/Globalstars, Horizon Europe or other</i>
Scope	<i>Technology development and new market access</i>
Project idea	<b><i>High-speed, high-resolution X-ray inspection</i></b>
Project impact	<i>Enable fail safe electronics, Quality assurance</i>
Project consortium	<p><i>Searching to partner with <b>OEMs and components providers:</b></i></p> <ul style="list-style-type: none"> <li>• <b><i>FEOL/BEOL</i></b> – Epitaxial layers (<math>\mu</math>HRXRD), Contamination &amp; Composition (<math>\mu</math>XRF), Crystallinity (<math>\mu</math>XRD), Critical dimensions (CD)</li> <li>• <b><i>Advanced packaging metrology</i></b> (NanoCT, Laminography)</li> <li>• <b><i>Electronics manufacturing</i></b> – Electronics inspection</li> </ul> <p><b><i>Interested to participate in Pilotlines.</i></b></p>

Contact:

Simona Laza, [simona.laza@excillum.com](mailto:simona.laza@excillum.com)

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# Thank you!

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