

From Lab to Market – Successful Technology Transfer Journeys

Cubicure: Changing the 3D Printing Landscape

Dr Markus Kury, Chief Operations Officer, Cubicure GmbH, Vienna/Austria

Online Training Session, 8 December 2022



Agenda

- **Setting the Scene: EPO Technology Transfer Case Studies**
- **Cubicure:
Changing the 3D Printing Landscape**
- **Outlook: Upcoming Training Sessions & Joint Activities**



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

EPO TECHNOLOGY TRANSFER CASE STUDIES | CUBICURE

Changing the 3D printing landscape

The development of a long-term technology transfer strategy allowed the Technical University of Vienna to jointly build IP in additive manufacturing with its industry partner, Ivoclar. Balancing the allocation of usage rights by application field led to the commercialisation of the research results by Ivoclar and the university's two spin-offs, Lithoz and Cubicure.



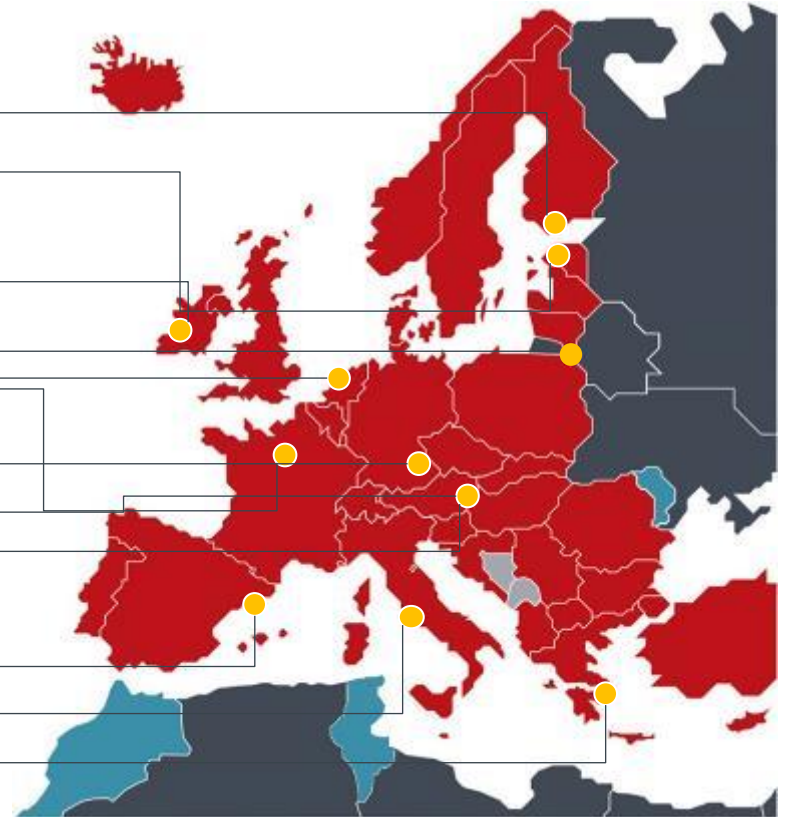
Cubicure additive manufacturing process
Hot lithography

Setting the Scene: EPO Technology Transfer Case Studies

EPO Innovation Case Studies



epo.org/case-studies



EPO Innovation Case Studies



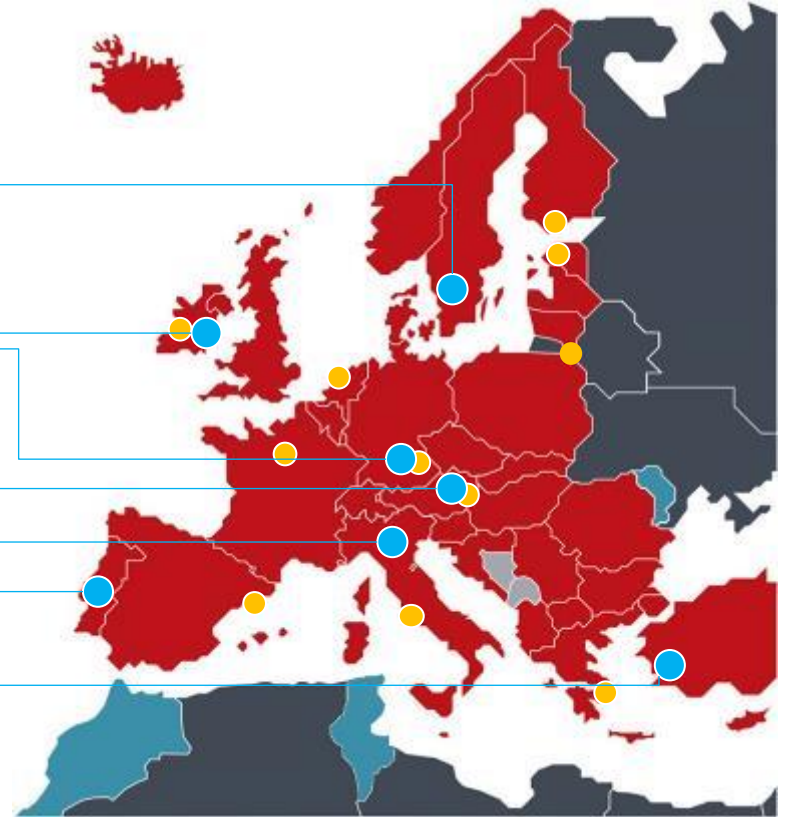
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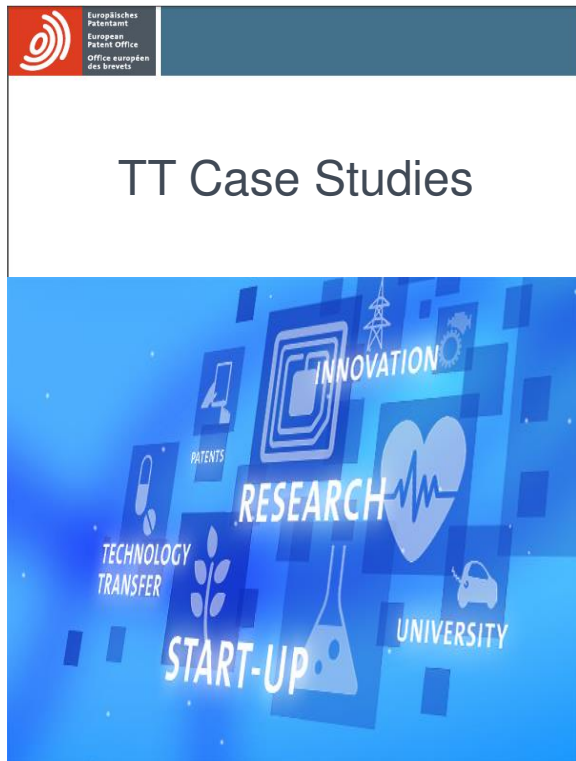
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EPO Technology Transfer Case Studies



Technology transfer case studies show

- **how patents facilitate tech transfer** from European research institutions to the market
- how patents **support business success**
- **diverse** tech transfer scenarios
- from the **technology** life-cycle perspective
- good practices in **IP strategy and IP management**

Technology transfer models

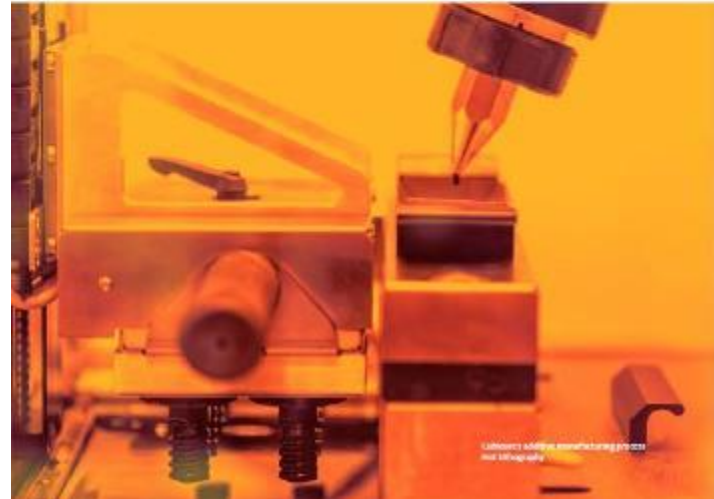
Industries	SMEs	Model
 Textiles	Oxeon	Public-private partnership; university spin-off
 Medical equipment	Atlantic Therapeutics	Industry-university collaboration; TTO as facilitator: Spin-off creation for market expansion
 Medical technology	Dermis Pharma	TTO support; university spin-off; partnership with big pharma company
 Energy	Fos4x	University spin off; IP deal for access to funds and facilities supported by professor; successful exit
 Road vehicles	Blubrake	External "enterprise factory" as facilitator of spin off formation
 Additive manufacturing	Cubicure	Collaboration contract; freedom to operate for spin offs
 Medical imaging	Perceive 3D	University spin-off based on an out-licensing process supported by TTO

Cubicure: Changing the 3D Printing Landscape

EPO TECHNOLOGY TRANSFER CASE STUDIES | CUBICURE

Changing the 3D printing landscape

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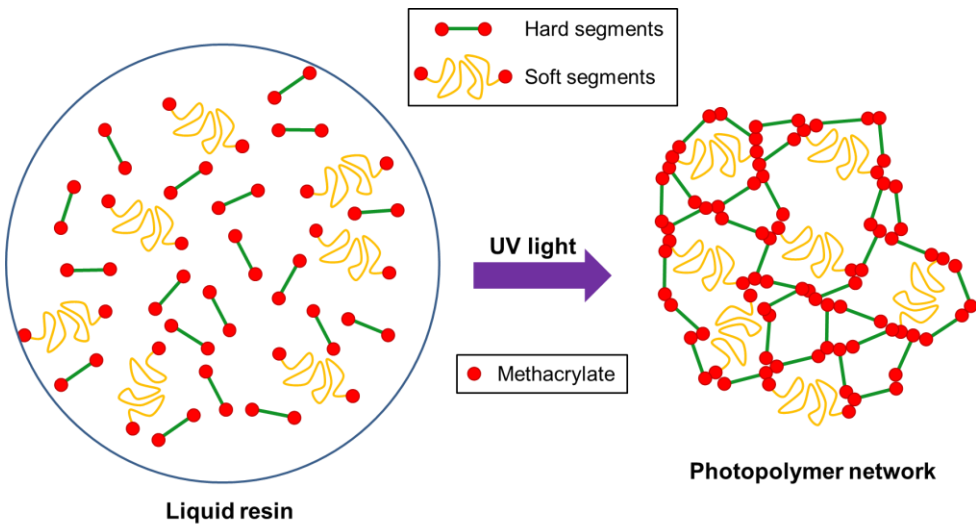
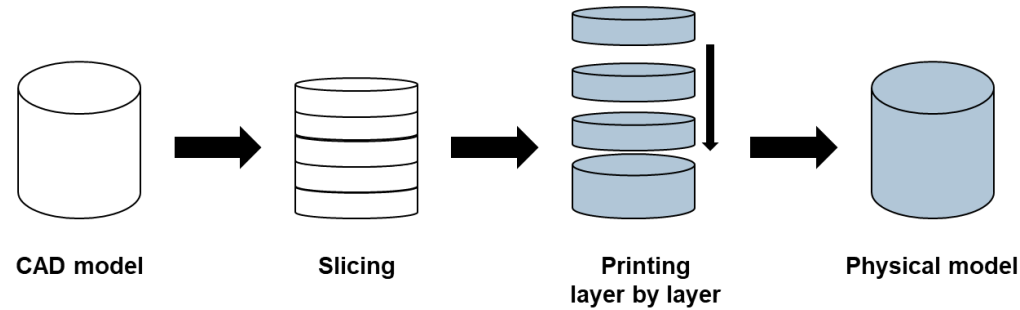
From Lab to Market – Cubicure Case

Markus Kury
2022-12-08



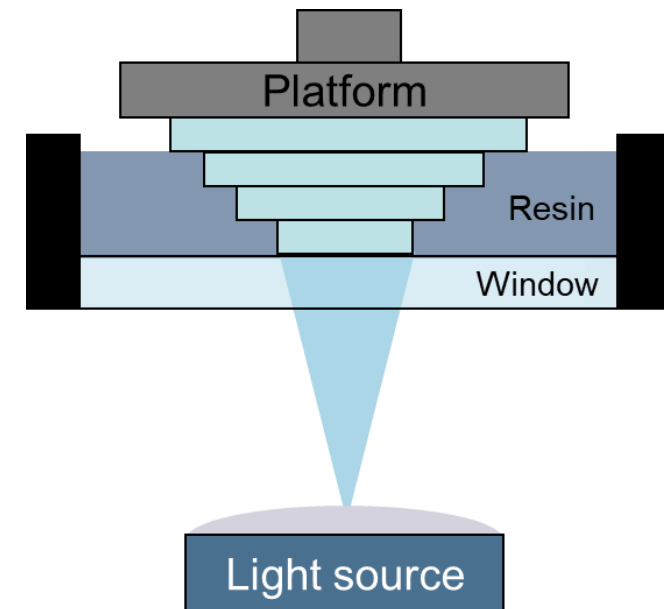
Beginnings of Cubicure

Prof. Jürgen Stampfl and Prof. Robert Liska

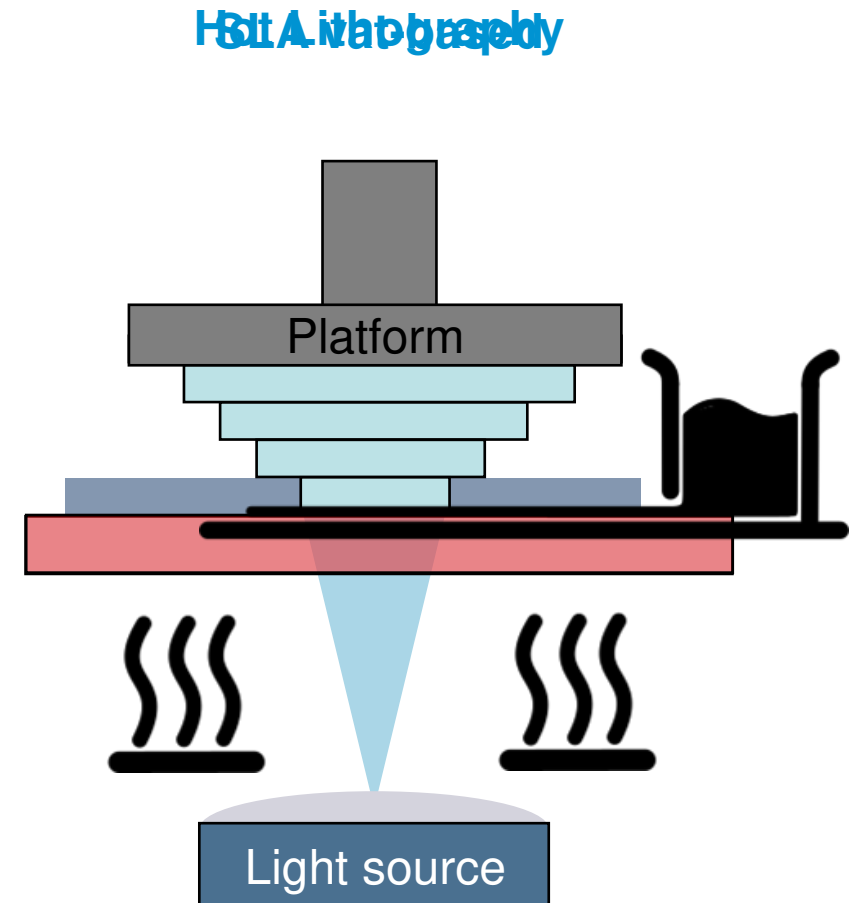
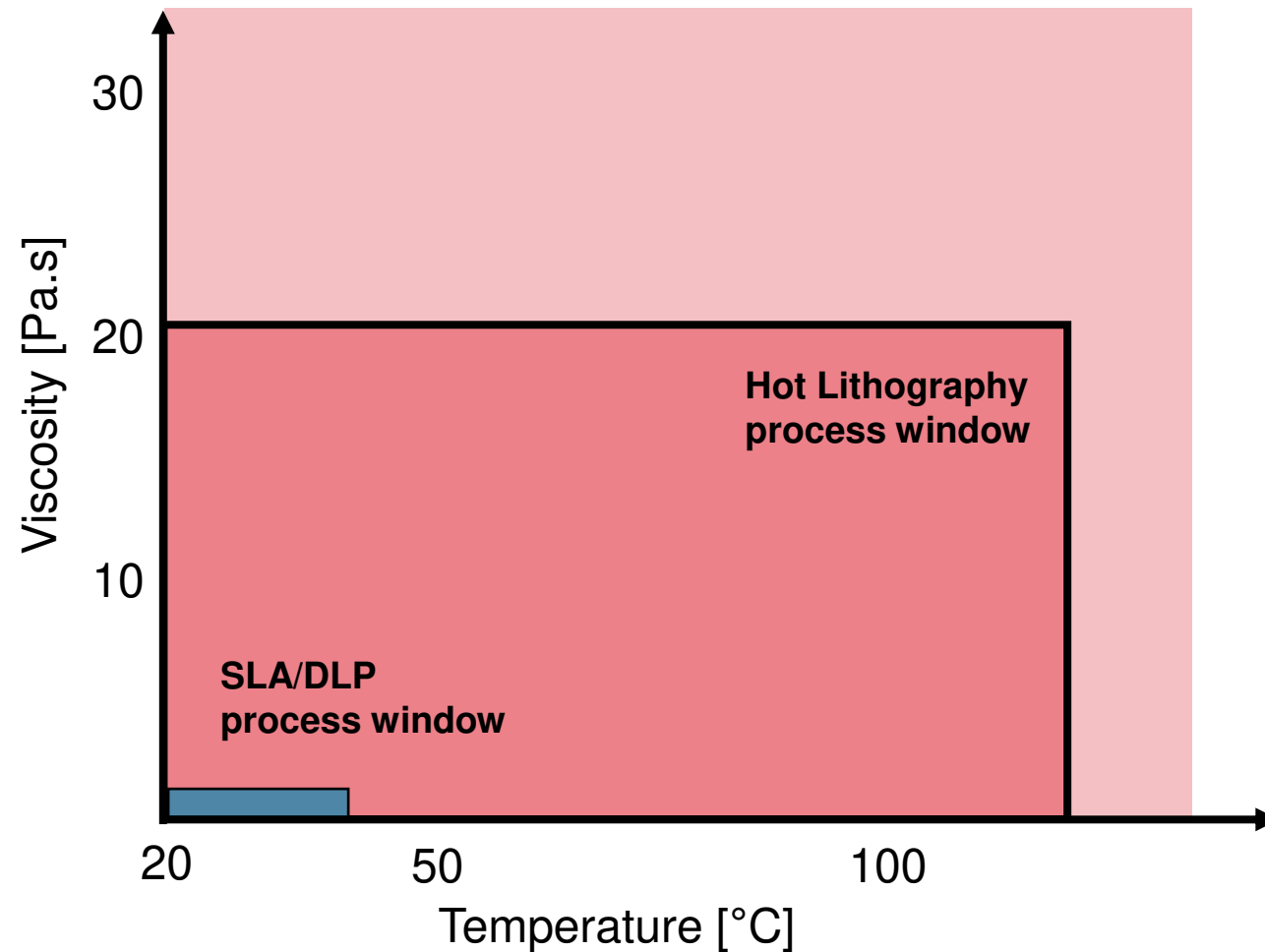


Limitations of photopolymers:

- Brittleness
- Poor long-term stability
- Not industrially applicable



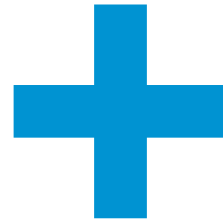
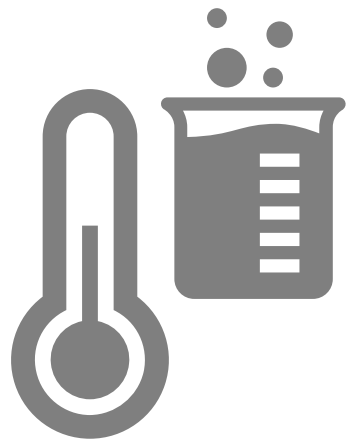
A new realm of possibilities – Hot Lithography



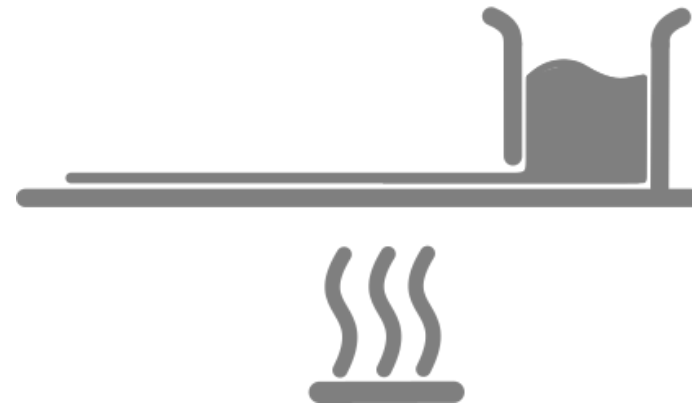
Beginnings of Cubicure

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Material

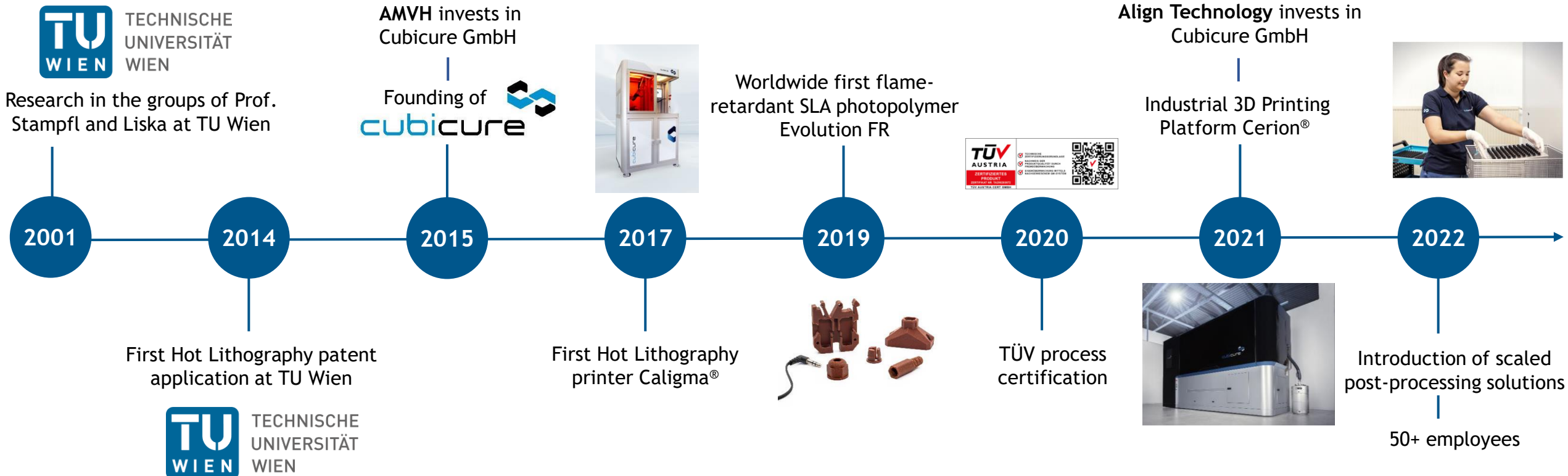


Process



Industry-ready high-quality parts

Cubicure timeline

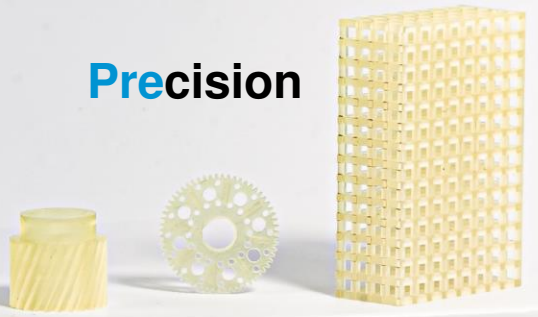


Cubicure product portfolio



Cubicure material portfolio

Precision



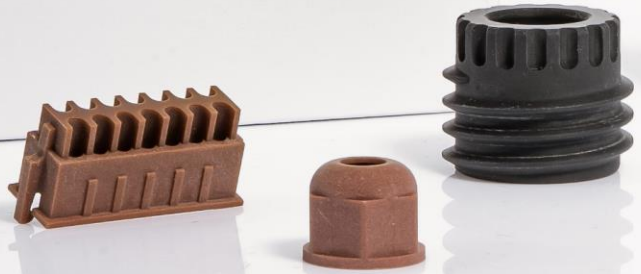
Evolution



Evonik INFINAM® FL 6300 L
powered by Cubicure



Evolution HI



Evolution FR

Connection FR



ThermoBlast



Business cases – medical technology and electronics



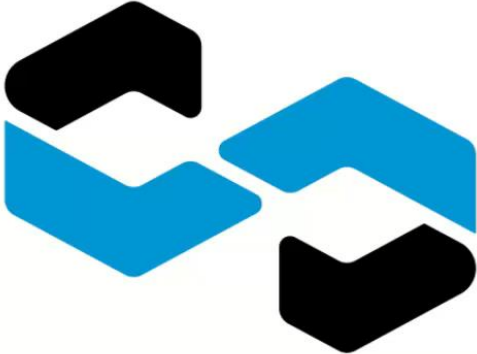
Weidmüller 



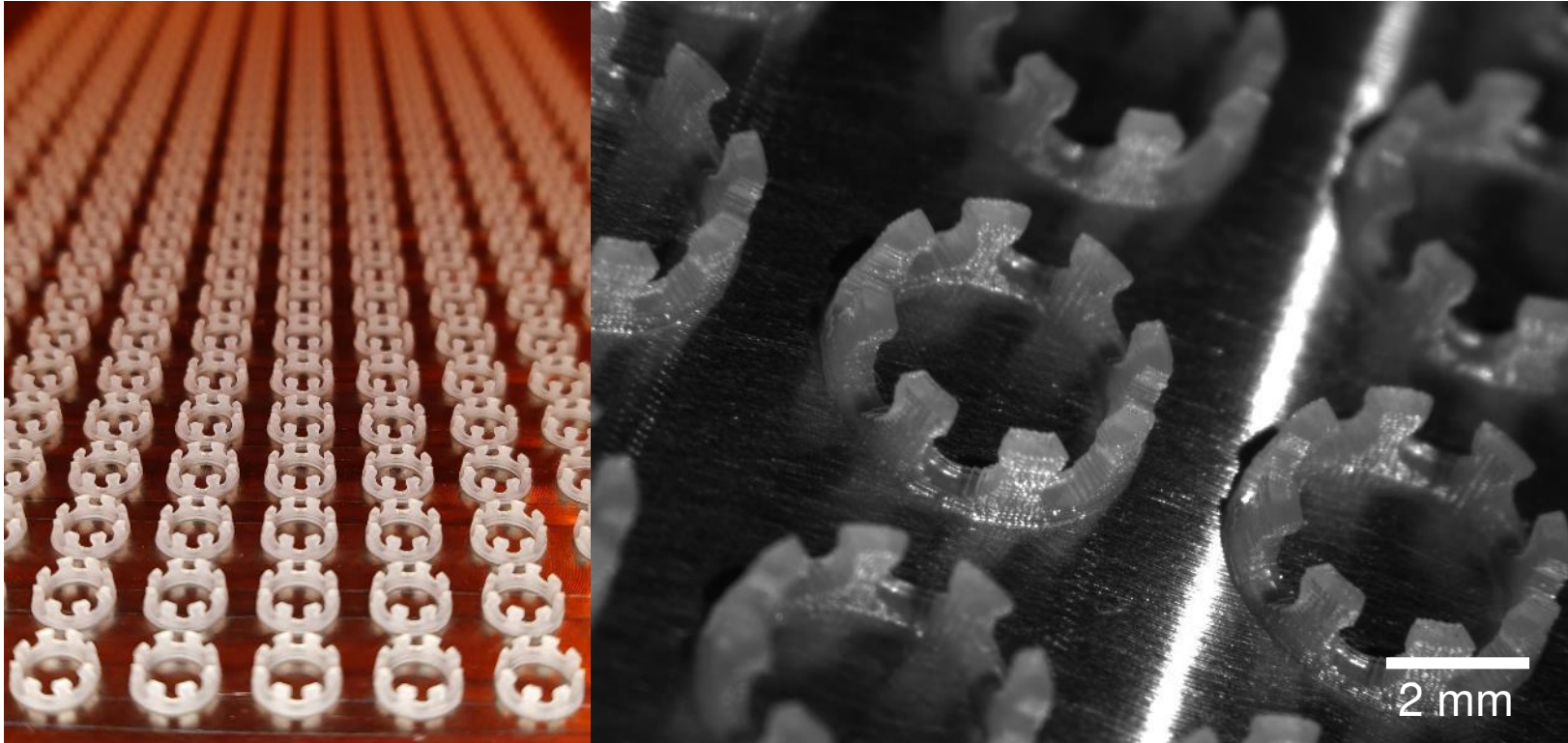
Cubicure 3D printers – Caligma® and Cerion®



Rethink 3D printing



Cerion® for digital series production

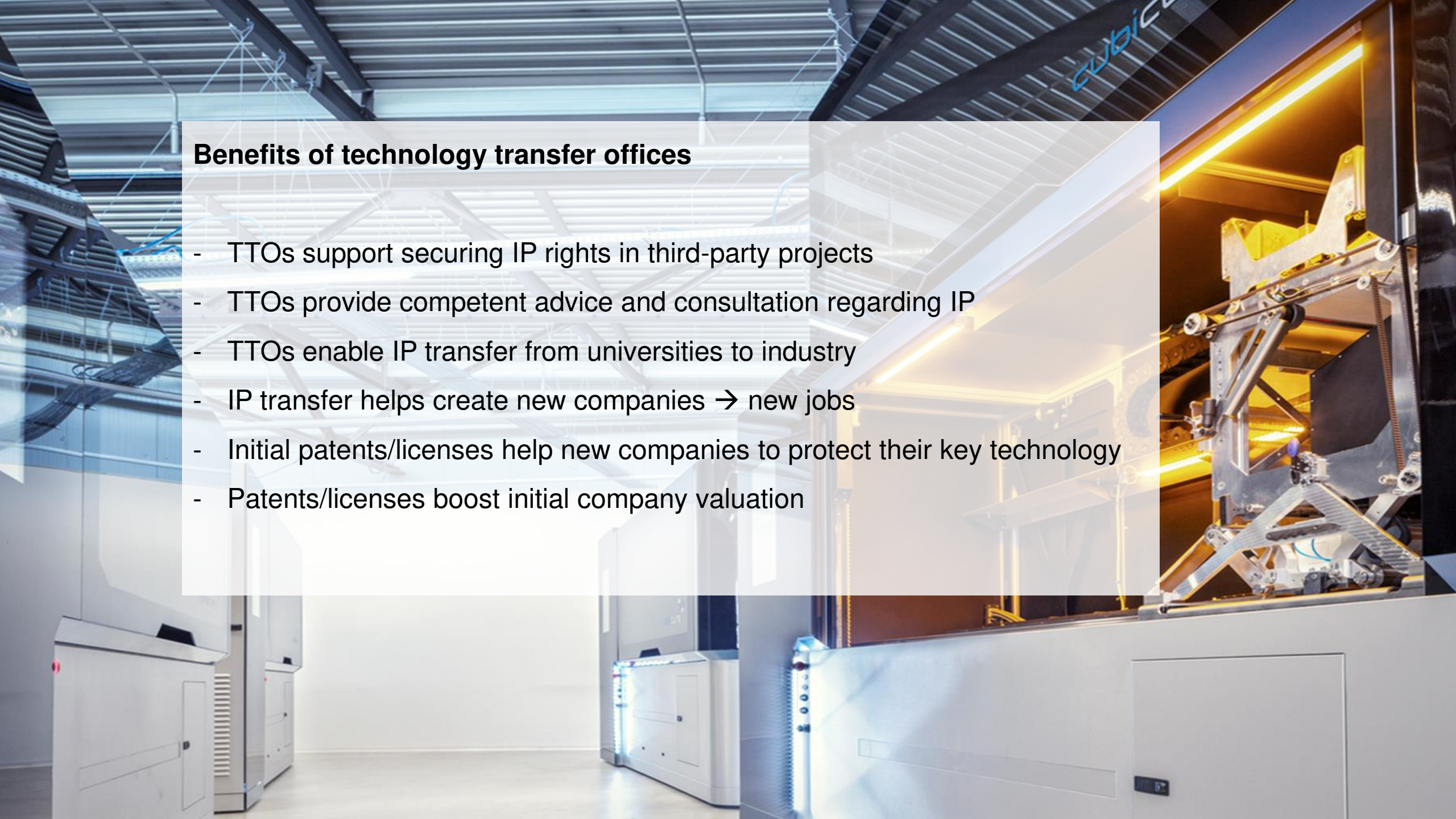


- ◆ ~ 12.000 parts per hour
- ◆ > 200.000 parts per day
- ◆ > 10 million parts per year
with one single Cerion®

Small parts with high precision and high resolution for high-throughput series production

Benefits of technology transfer offices

- TTOs support securing IP rights in third-party projects
- TTOs provide competent advice and consultation regarding IP
- TTOs enable IP transfer from universities to industry
- IP transfer helps create new companies → new jobs
- Initial patents/licenses help new companies to protect their key technology
- Patents/licenses boost initial company valuation



**A new era of
digital
manufacturing**



printing performance polymers

Cubicure GmbH | Tech Park Vienna (TPV)
Gutheil-Schoder-Gasse 17
1230 Vienna Austria

www.cubicure.com



Let's talk!



Listen in!



[3D printing high-performance polymers: a technology transfer case study](#)

Outlook:
Upcoming Training Sessions & Joint Activities

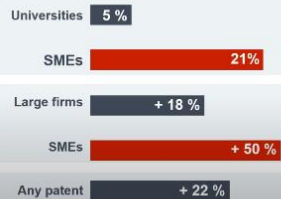
Watch: Tech Transfer Training Series Kick-off

SMEs and universities are key actors of innovation

SMEs and universities file 26% of the applications at EPO originating from Europe

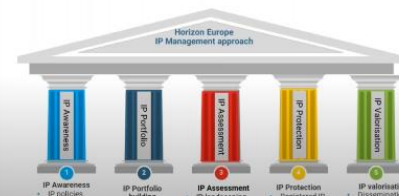
SMEs that own patents enjoy a 50% premium in revenue per employee

SMEs that have filed patents are 22% more likely to grow in the subsector



The Impact of the Innovation Case Studies
(Yann Ménière, Chief Economist, EPO)

Collaborative IP management approach in Horizon Europe



Collaborative IP management in the frame of research cooperation (Jörg Scherer, Coordinator, European IP Helpdesk)

Patent commercialisation by European universities and public research organisations



Valorising research results and the role of patents
(Ilija Rudyk, Senior Economist, EPO)

Objectives of the Unitary Patent package

- Providing better value with reduced complexity
 - Facilitating access to patent protection for SMEs, universities and public research centres
 - Making Europe more attractive for innovation and investors
 - Boosting Europe's competitiveness
- Cost-effective option for broader patent protection and dispute settlement across Europe

Unitary Patent System for SMEs and Universities
(Michael Fröhlich, Director European & International Legal Affairs, PCT, EPO)

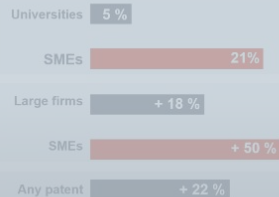
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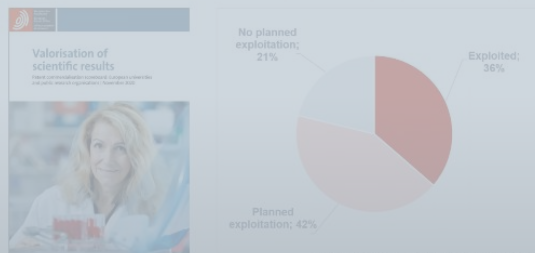
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The Impact of the Innovation Case Studies

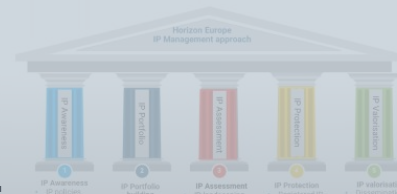
(Yann Lévesque, Chief Economist, EPO)

Patent commercialisation by European universities and public research organisations



Valorising research results and the role of patents
(Ilja Rudyk, Senior Economist, EPO)

Collaborative IP management approach in Horizon Europe



Collaborative IP management in the frame of research

(Christophe Berron, Director of the EPO IP Helpdesk)

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Unitary Patent System for SMEs and Universities
(Michael Fröhlich, Director European & International Legal Affairs, PCT, EPO)

Recording available via:

<https://attendee.gotowebinar.com/recording/5317190276567942670>

Special Issue: „les Nouvelles“

Out now!

Our special issue of “les Nouvelles” in cooperation with the Licensing Executive Society International and the European Patent Office.

This issue is all about successful technology transfer and the value of IP rights when it comes to translating research results into innovative products or services.



<https://www.lesi.org/publications/les-nouvelles/les-nouvelles-online/june-2022>

European IP Helpdesk Training Calendar

07-08
DEC
2022

Info days
European Innovation Council Summit 2022

📍 Brussels, Belgium
📺 Live streaming available

14
DEC
2022

Training and workshops
EU - Webinar: Patents and Innovation

📺 Live streaming available

14
DEC
2022

Info days
Horizon IP Scan - Info Session

📺 Live streaming available

15
DEC
2022

Training and workshops
Webinar: Maximising the Impact of H2020/HEU Project Results

📺 Live streaming available

Registration: www.ec.europa.eu/ip-helpdesk

Keep an eye on updates

The screenshot shows the European Commission website with a search bar at the top. The main navigation includes 'Home', 'Services', 'Regional helpdesks', 'IP management and resources', 'About', and 'News & Events'. The content area features a section for 'Small and medium-sized enterprises' with a sub-section for 'Innovation case studies'. A sidebar on the left contains various program links like 'Academic Research Programme', 'Complementary Financing in Europe', and 'IP enablement design'. The main text discusses the importance of IP for SMEs and provides links to various support services.

This screenshot shows the header of the European IP Helpdesk website. It features the European Commission logo and a search bar. The navigation menu includes 'Home', 'Services', 'Regional helpdesks', 'IP management and resources', 'About', and 'News & Events'. Below the navigation, there is a breadcrumb trail: 'European Commission > IP Helpdesk > Regional helpdesks > European IP Helpdesk'.

European IP Helpdesk

A first-line intellectual property (IP) service providing free-of-charge support for European SMEs and beneficiaries of EU-funded research projects manage their IP in the context of transnational business or FI research and innovation programmes

This screenshot shows a search bar and a navigation menu for the European IP Helpdesk. The navigation menu includes 'Home', 'Services', 'Regional helpdesks', 'IP management and resources', 'About', and 'News & Events'. Below the navigation, there is a breadcrumb trail: 'European Commission > IP Helpdesk > Regional helpdesks > European IP Helpdesk > Europe - Regular Webinar Schedule'.

Europe - Regular Webinar Schedule

Regular webinar
We are happy to announce the webinar curriculum of 2021. Just click the course you are interested in and you will be directed to the corresponding event description with further details on contents and registration.

Our comprehensive webinar schedule covers an ever-growing number of topics reaching an audience of more than 2,500 people per year. Make sure to register to:

- 19 OCT 2021 Webinar: Coping with the European Patent Office - From Lab to Market: Successful Technology Transfer Journeys
- 21 OCT 2021 EU - Webinar & COPORA course: Guidelines to Intellectual Property Protection for Plants
- 20 OCT 2021
- 27 OCT 2021

The screenshot shows a YouTube video player for 'The European IP Helpdesk Helpline'. The video title is 'The European IP Helpdesk Helpline' and the channel is 'Splitter ans...'. The video description says 'There is! Trollen'. The video player includes a play button, a progress bar, and a volume icon. Below the video player, there is a 'Watch on YouTube' button.

This screenshot shows the European IP Helpdesk Newsletter. The title is 'European IP Helpdesk Newsletter' and the subtitle is 'Catch up with news highlights from the world of IP and innovation - and from the European IP Helpdesk team.' The newsletter includes a 'Stay ahead of the innovation game' section and a 'Latest IP News' section. The 'Latest IP News' section features a headline: 'Global Innovation Index 2021: Innovation Investments Resilient Despite COVID-19 Pandemic'.

www.epo.org/sme

company requiring a special blend of business planning, IP strategy & creativity.

Have a listen: <https://t.me/inev21gk>

The screenshot shows a social media post for 'TALK INNOVATION'. The post features a photo of two people, a man and a woman, and a red speech bubble with the text 'TALK INNOVATION'. The post includes a link to a video and a caption: 'New on #TalkInnovation'.

This screenshot shows the EPO newsletter for 19/2021. The title is 'EPO newsletter 19/2021'. The newsletter includes a section for 'Dear Stakeholders' and a section for 'EPC case at your fingertips'. The 'EPC case at your fingertips' section discusses the EPC case at the European Patent Office and provides a link to the full text.

The screenshot shows a social media post for 'GO'. The post features a photo of a person and a red speech bubble with the text 'GO'. The post includes a link to a video and a caption: 'New on #TalkInnovation'.

www.ec.europa.eu/ip-helpdesk

Need more information?

European IP Helpdesk

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Contact us via training@iprhelpdesk.eu



Training

free online and on-site sessions



Website

frequent updates from the world of IP and innovation



Helpline

confidential treatment of individual IP questions



Publications

practical IP knowledge through high-level publications



Ambassadors

local IP support throughout Europe



Events

info point at key networking events and conferences

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Thank you for joining us today!

