

Table-ronde 2

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CONFÉRENCE



FRANCE22

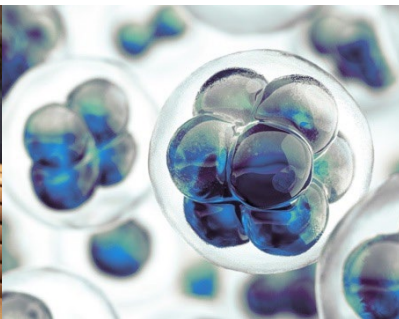
PRÉSIDENCE FRANÇAISE
DU CONSEIL DE L'UNION
EUROPÉENNE

**Le rôle de la Propriété Intellectuelle
dans les interactions entre Science et Industrie**
Quelle perspective européenne ?



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

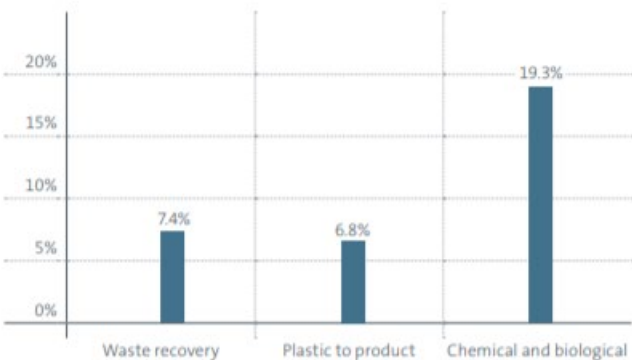
Beyond licensing: IP and of the forms of interaction between science and industry



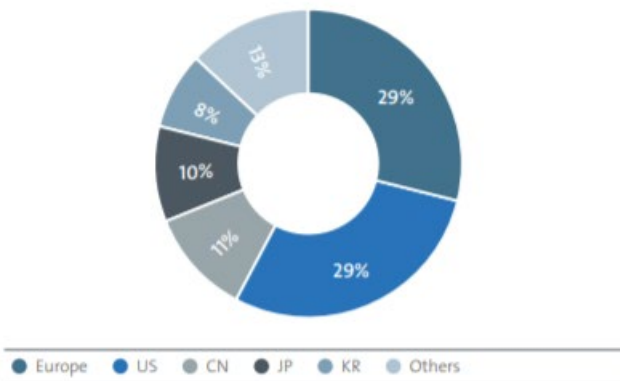
Fundamental research in plastics recycling

Upstream research in recycling technologies: **international patent families (IPFs) 2010–2019**

a) Share of IPFs generated by universities and PROs



b) IPFs generated by universities and PROs in chemical and biological recycling

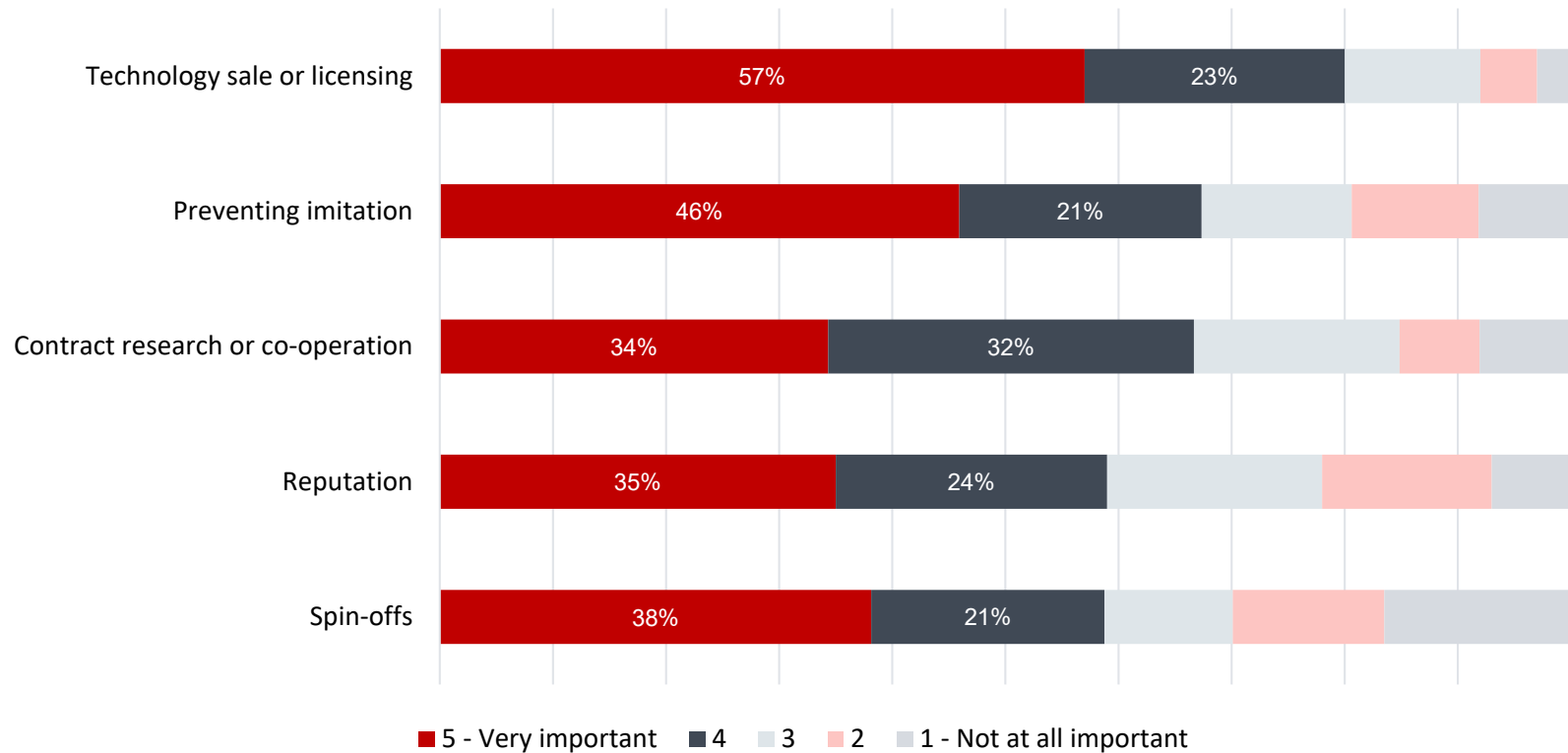


Chemical and biological methods rely far more on **university research**

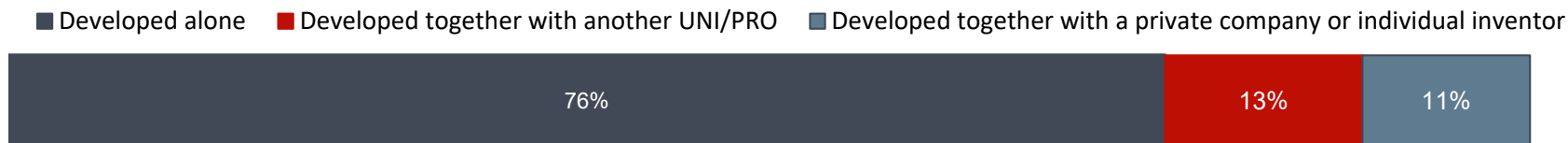
Europe is the only major region that contributes more to IPFs in upstream research (29%) than to all IPFs in the field (26%)

US start-ups generated four times as many IPFs than their European counterparts (338 versus 84) over the decade.

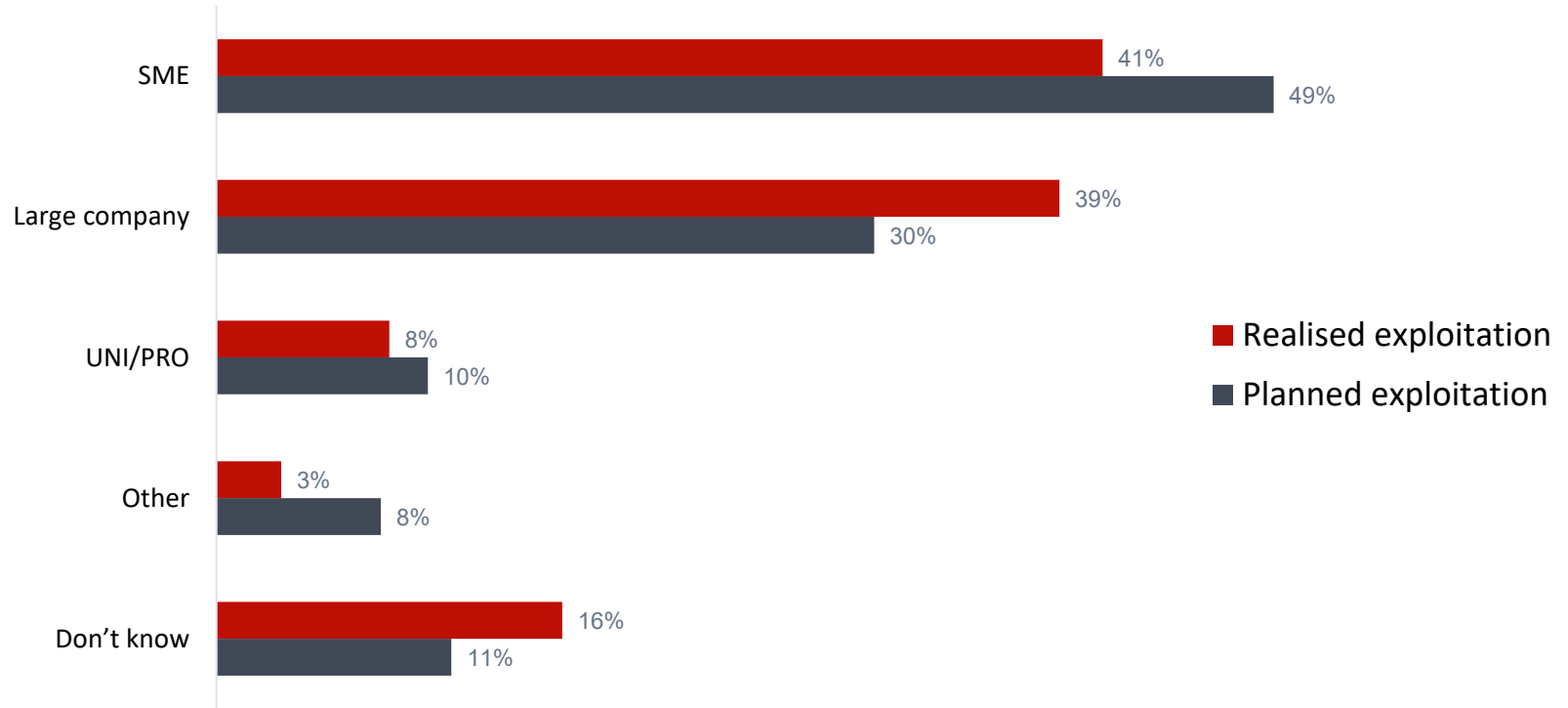
European research institutions: Motives for patenting



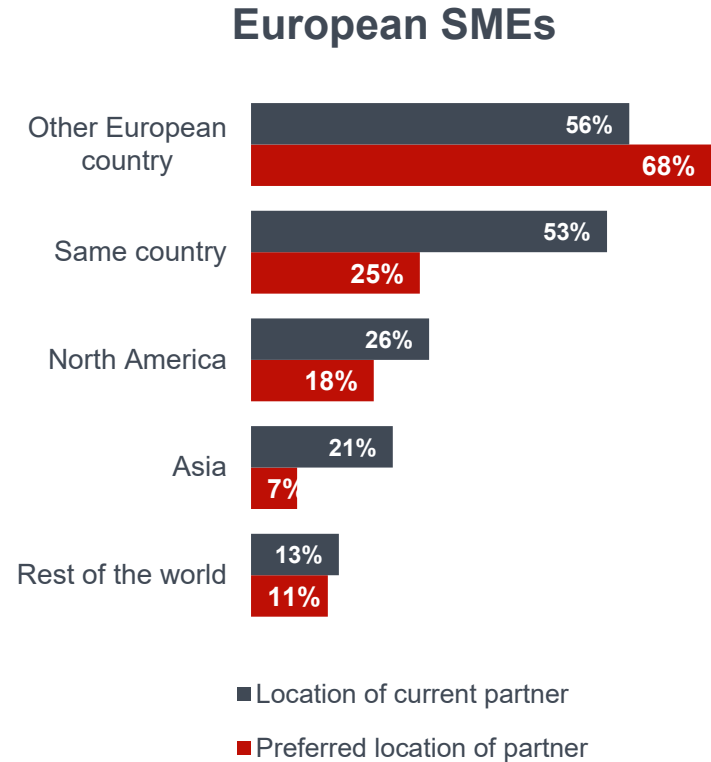
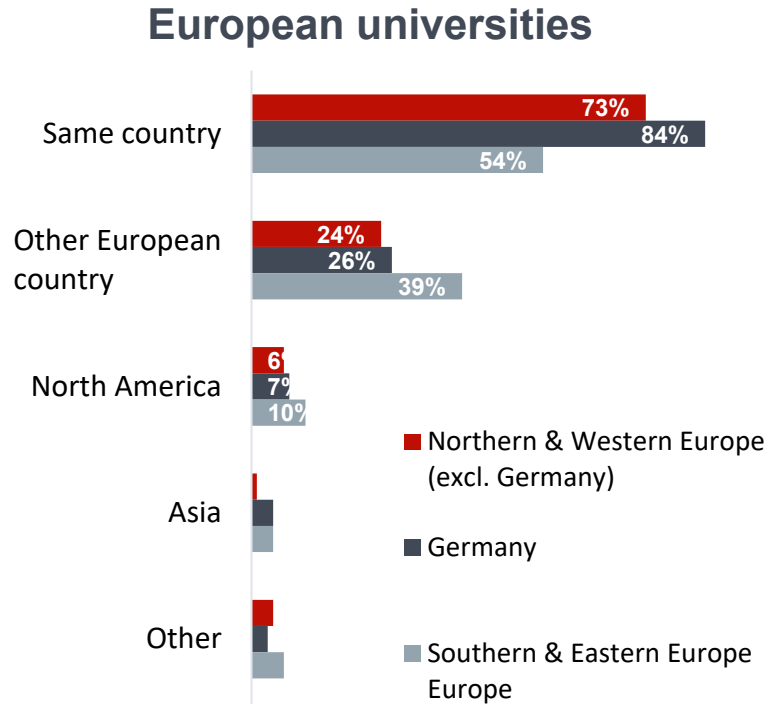
Status of EP applications from European universities and PROs



Commercialisation partners of European universities



Commercialisation partners of European universities



The case of Aerogen



EPO SME CASE STUDIES | AERGEN

Breathing new life into aerosol drug delivery

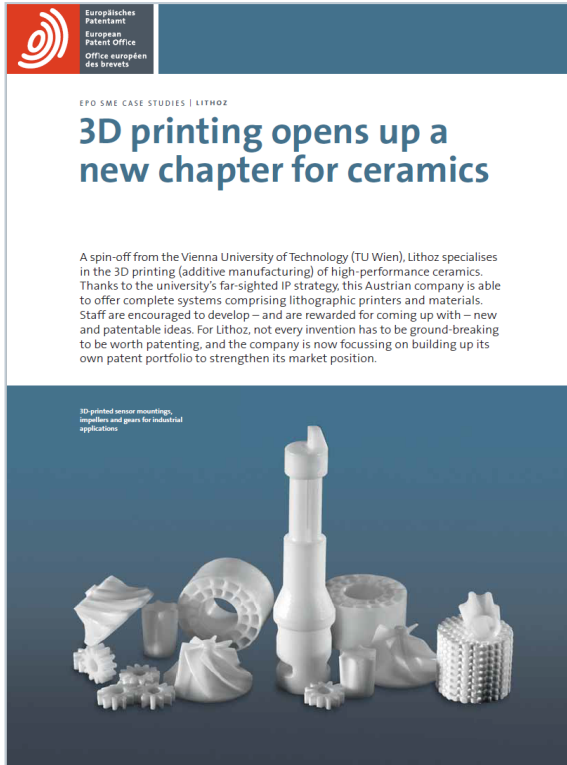
Aerogen began as a small start-up in Ireland based on an aerosol technology and has established itself as a global leader in the hospital sector for high-performance aerosol drug delivery for ventilated patients. At the heart of the aerosol technology is a nebuliser that differentiates Aerogen's products from competitors and is central to an extensive patent portfolio, which has proved to be a valuable asset in creating strategic partnerships with global leaders in the critical care respiratory sector and accelerating the acceptance of Aerogen's technology in the market. The company has found it beneficial to conduct an annual meeting with its IP management team to review and refine its IP strategy. Collaborations with outside research groups also support Aerogen's R&D and IP activities.



Perforated palladium-nickel plate with precision-formed holes creating fine aerosol particles.

- An Irish start-up turned a **global market leader**
- **Strong patent portfolio** proved critical for:
 - securing high margins
 - gaining recognition
 - attracting capital
 - establishing strategic partnerships
- Two types of **strategic partnerships**:
 - Downstream, for production and distribution
 - **Upstream**, for **sourcing technology**

The case of Lithoz



The image shows a screenshot of an EPO SME Case Studies article. At the top left is the logo of the European Patent Office (EPO) with the text 'Europäisches Patentamt', 'European Patent Office', and 'Office européen des brevets'. Below the logo, the text reads 'EPO SME CASE STUDIES | LITHOZ'. The main title is '3D printing opens up a new chapter for ceramics'. The article text states: 'A spin-off from the Vienna University of Technology (TU Wien), Lithoz specialises in the 3D printing (additive manufacturing) of high-performance ceramics. Thanks to the university's far-sighted IP strategy, this Austrian company is able to offer complete systems comprising lithographic printers and materials. Staff are encouraged to develop – and are rewarded for coming up with – new and patentable ideas. For Lithoz, not every invention has to be ground-breaking to be worth patenting, and the company is now focussing on building up its own patent portfolio to strengthen its market position.' At the bottom of the article is a photograph of various 3D printed ceramic parts, including a tall cylindrical component, a gear, and several other intricate shapes. A small caption above the photo reads: '3D printed sensor mountings, impellers and gears for industrial applications'.

- A university spin-off:
 - TU Wien developed **3D printing** technology for *dental* company Ivoclar
 - and secured **exploitation rights** for *non-dental* applications
- **International** expansion was facilitated by Ivoclar's unusually **broad patent portfolio**



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Thank you for your attention!

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