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A Win-Win Situation for Basic Research and Industry: The Funding Model of the Christian Doppler Laboratories “Textile and Fibre Chemistry in Cellulosics”

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Textilverein - Vorarlberg
Verein zur Förderung der
Forschung und Entwicklung
in der Textilwirtschaft

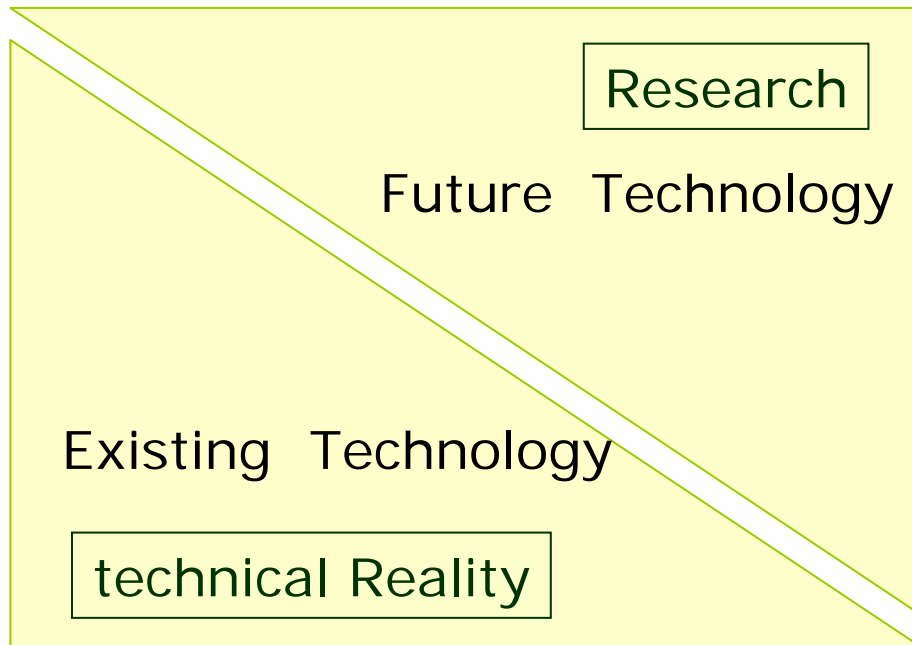
Vorarlberger
Landesregierung

Lohmann + Rauscher



Profile of a University Research Institute

„Research and Education“



Fundamental research

Applied research

Education – Diploma thesis, dissertation, lectures

Assistance in technology development

Inquiries and
Information transfer

The Research Institute for Textile Chemistry and Textile Physics

- Fundamental research topics with expected long term benefit for industry
- Applied research with clear definition of results (processes, properties, environment, costs)
- Enterprise defined topic with clear technical background/expected result

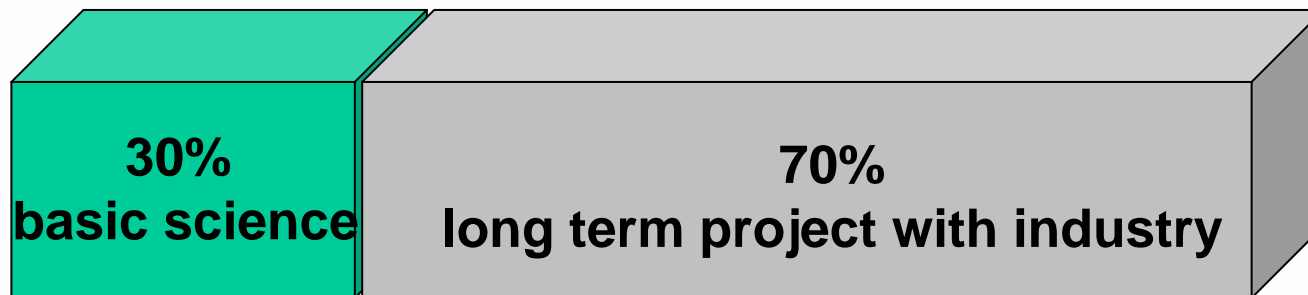
FWF-Projects Fundamental res.
FFF-Projects Industrial research



Experimental size: 12500 m, 3000 kg

Prerequisites for a CD Laboratory

- (Young) dynamic scientist with good ideas for application oriented basic science
- Industrial partner(s) with a concrete demand for new knowledge from basic science and capabilities to implement
- Consensus between industrial and academic partners as to budget and work plan



- Small research groups
- Size: 5 – 10 people
- Host: university or other research institutes
- Budget: 110.000 – 500.000 €/year
- Duration: up to 7 years



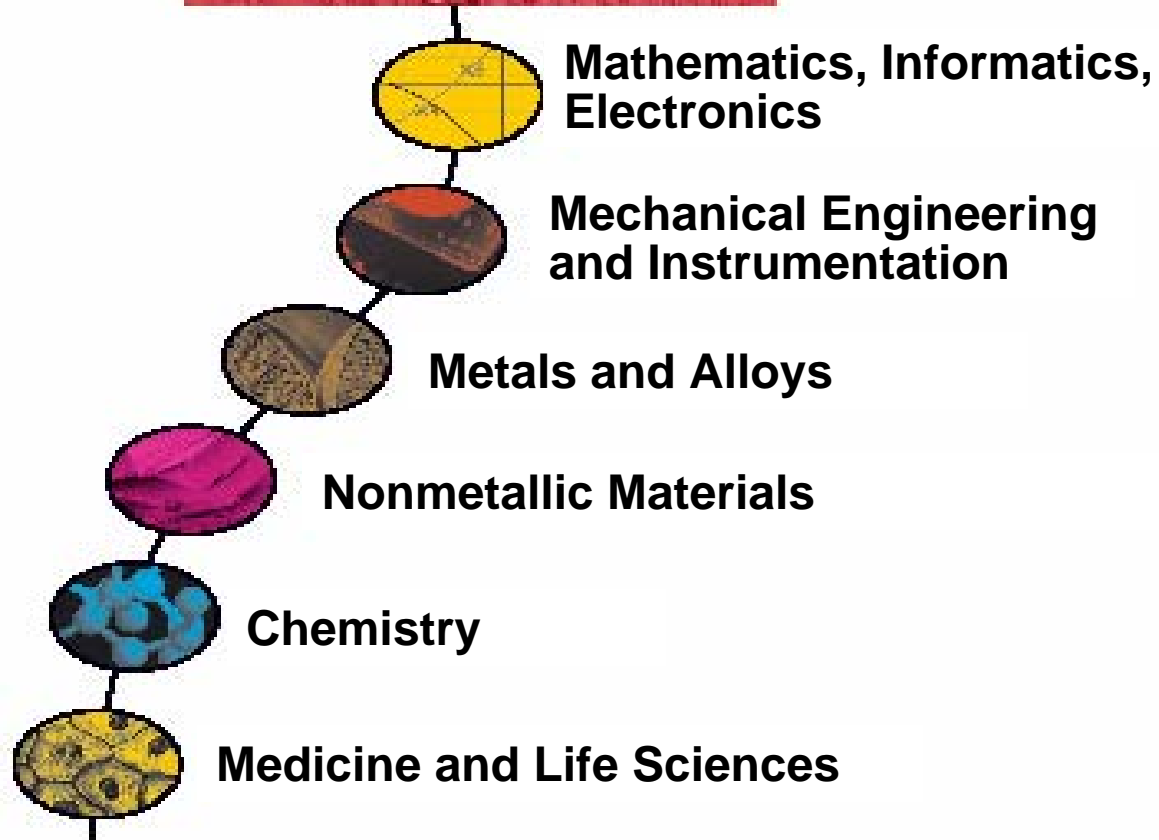
Where do the Resources come from?

- 50% Industry, 50% Public R&D Funding
- Only “additional funds” in cash, no “in-kind” contributions
- Infrastructure for CD Laboratories provided by universities
- Key funding partners: Austrian Ministry of Economy and Labour, Austrian National Foundation for RTD

The International Dimension

- Inward: foreign companies can be members and partners of CD-labs in Austria
- Outward: CD-labs or “modules” (branch of a lab) abroad

Research Areas of the CDG



User oriented basic research – „The cellulosic fibre“

Module 1

Fibre production – Structure and modification, fibre properties

Module 2

Textile processing – Textile finishing of cellulosic fibres

Module 3

Consumer – Wear and performance properties

Module 4

A planned pattern of properties has to consider all aspects at the same time.

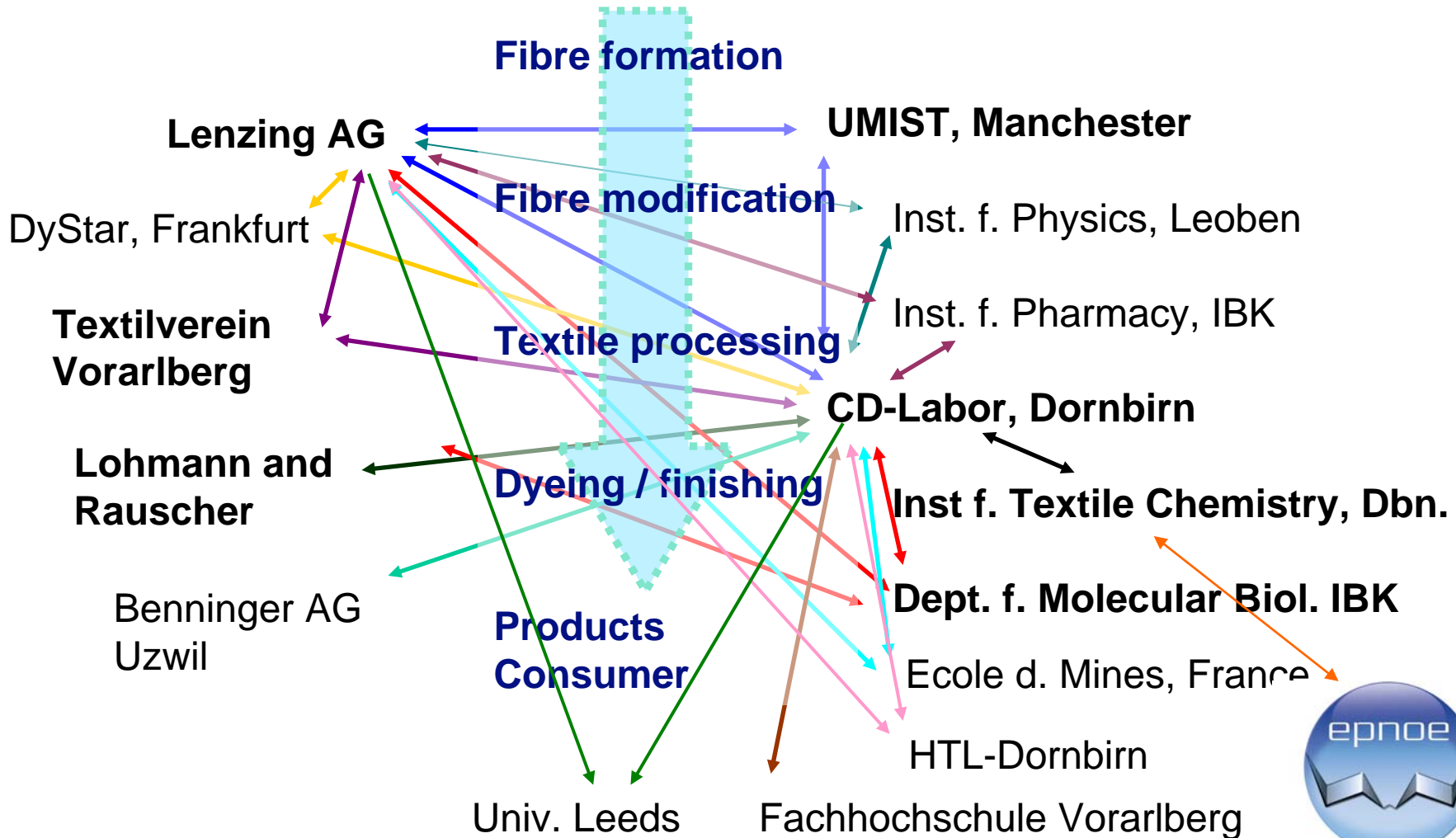
Scientific research forms the basis for an **integrative concept.**

Christian Doppler Laboratory

“Textile and Fibre Chemistry in Cellulosics”

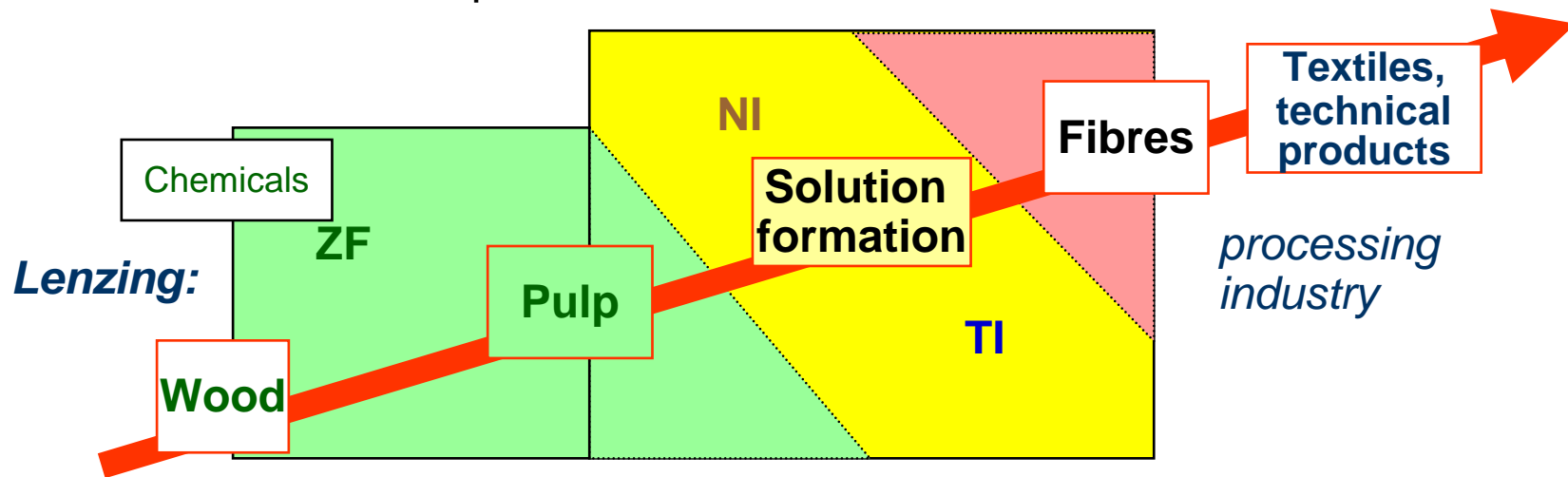
Industrial partner

Research institution

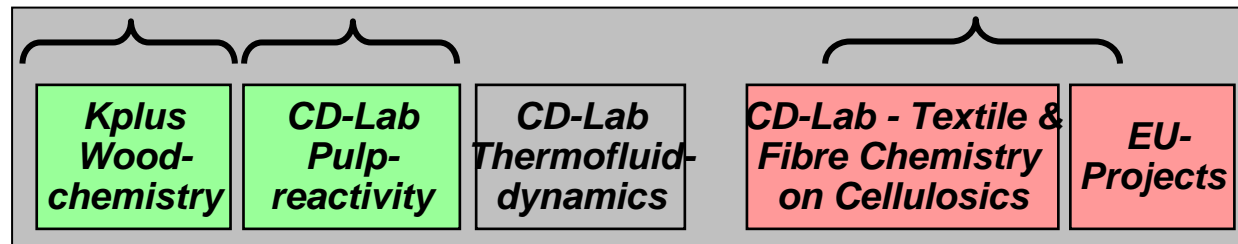


Competence, critical mass and synergy at all relevant steps

- Lenzing site: focus on market relevant processes and product development
- partners in academia and industry: pre-competitive development and fundamental research
- Transfer and implementation of results



Cooperations:



1. Publications

Refereed journals

at present

100 publications (publ., in press, accepted)

approx.

10 manuscripts in preparation

Scientific contributions

80 lectures, papers

Patents:

4 patent applications

2. Transfer of results and related activities

PhD and MSc. studies finished / in progress

6 PhD studies finished

5 – 8 PhD. studies ongoing

1 Diploma finished

2 practical work with students

3. Internal transfer of reports /workshops and meetings



„The most rewarding research is the one that delights the thinker and at the same time is beneficial to humankind.“

Christian Doppler (1803-1853)

CDG transfers this idea into practice

