Becoming the first choice in sustainable packaging solutions

Demands for Flexible Packaging

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Sustainability – *Act now*

Plastikmüll am Strand in Ghanas Hauptstadt Accra

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Demands for Packaging: Focus on EndOfLife

Shift in Paradigma from functionality , marketing and costs to
End of Life dominating all other priorities = Dogma – Emotional decisions

European Legislation pushing for Circular Economy: Many laws against Waste+Packaging
Consumers are preferring paper and Bioplastics

Very fast legal processes without listening to institutions involved (SUP-Ban,..)

Do not forget the functions to be fulfilled by packaging !

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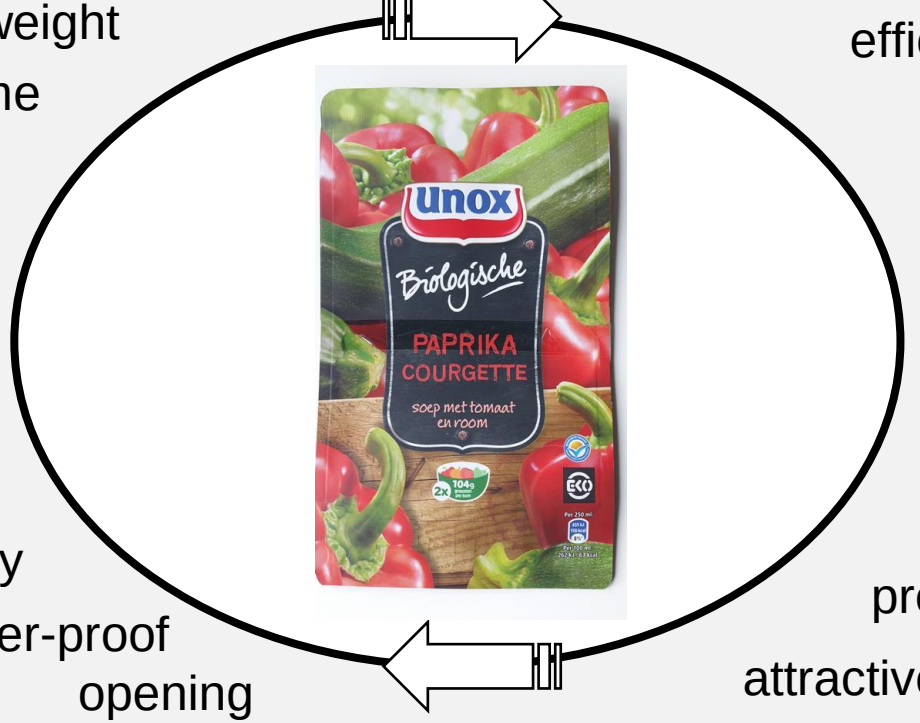
Flexible Packaging

Demands for Packaging

Packaging = part of a product used
Packagingprocess = part of production



[PackFormats, My 180604]

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Flexible Packaging Demands + Barriers

Outside (Environment)

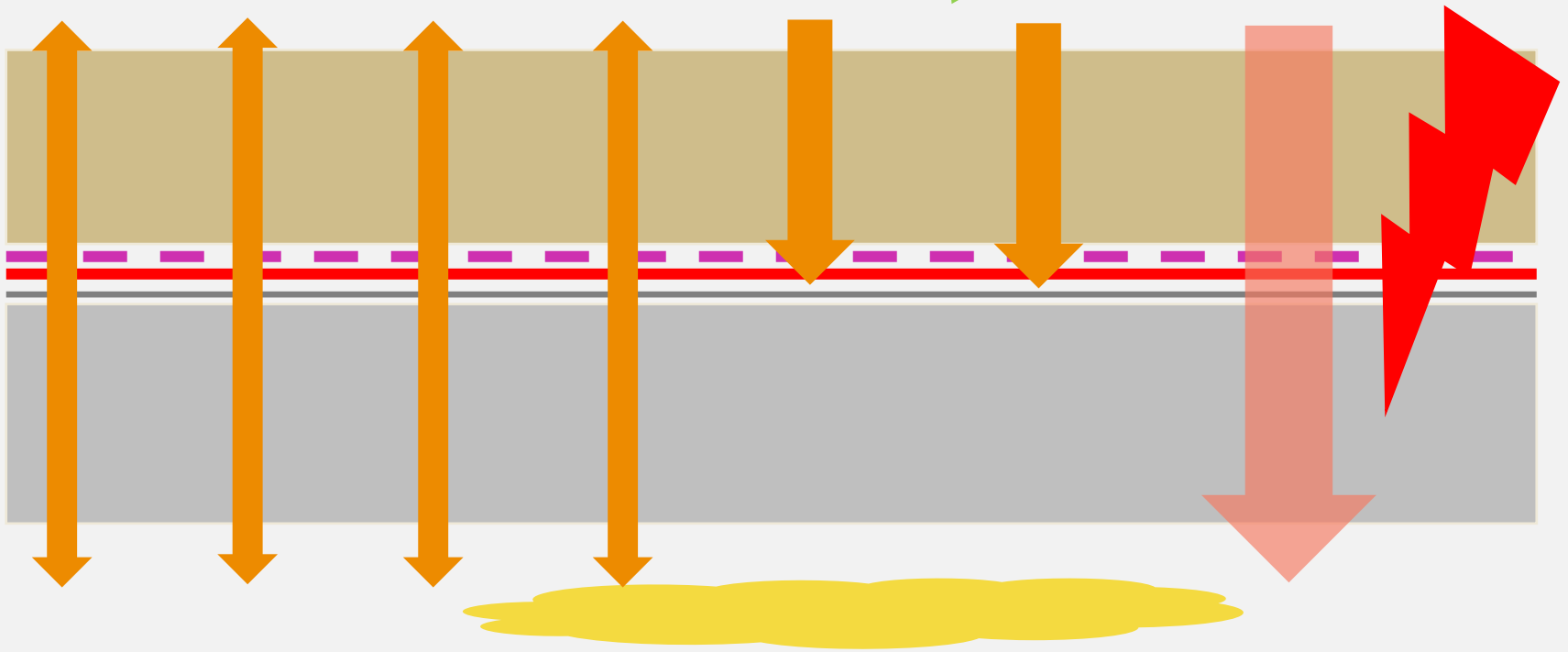
Barrier-Funktions:

gas, Oxigen, aroma, humidity,light, mineraloils

MO

Processing:

Heat for sealing



OPP 20µm

colors

adhesive

Metallisation

OPP 20µm

Inside (Product)

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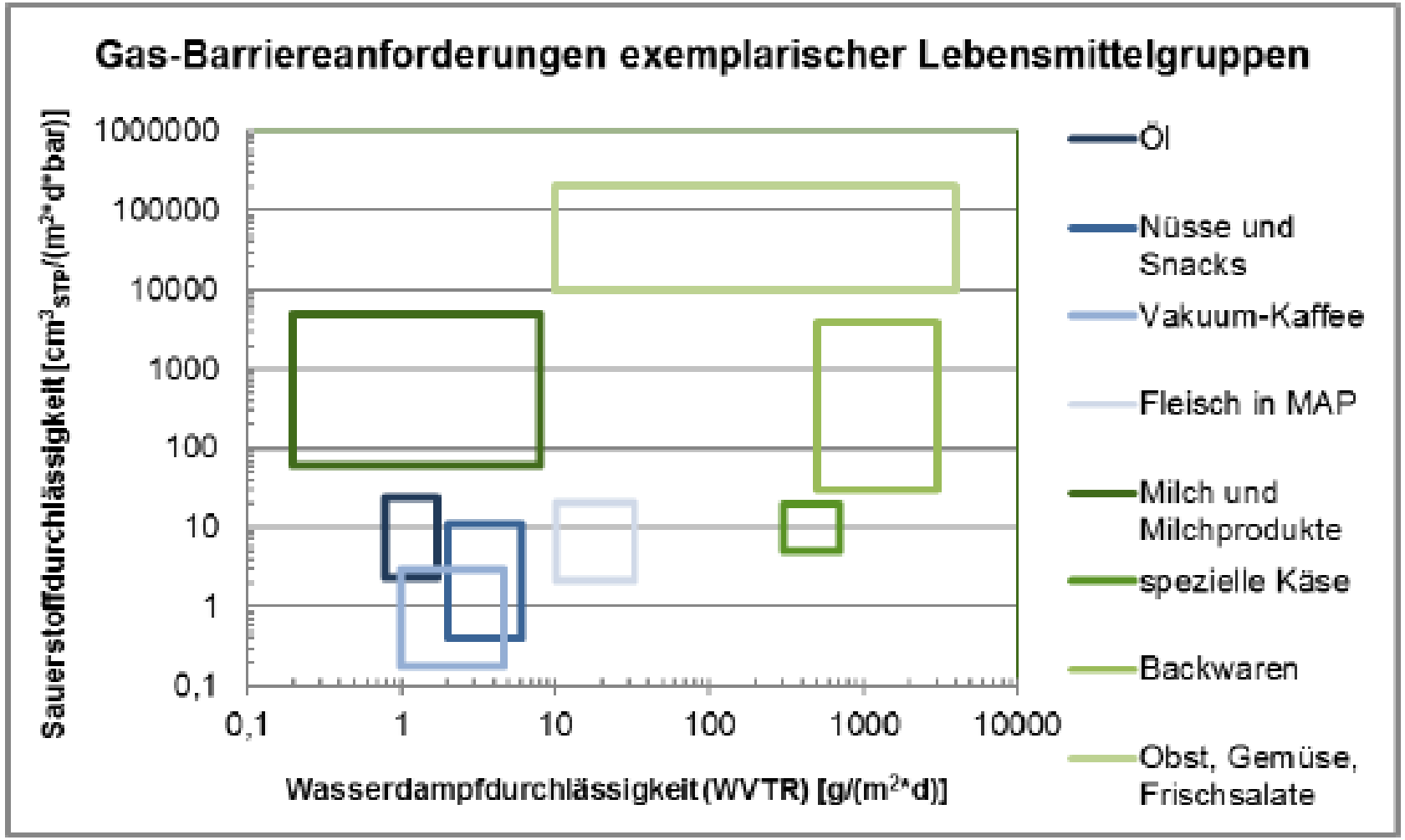
Demands for Packaging: Barrierdemands of Products filled



Source= ifeu+ narocon 2017

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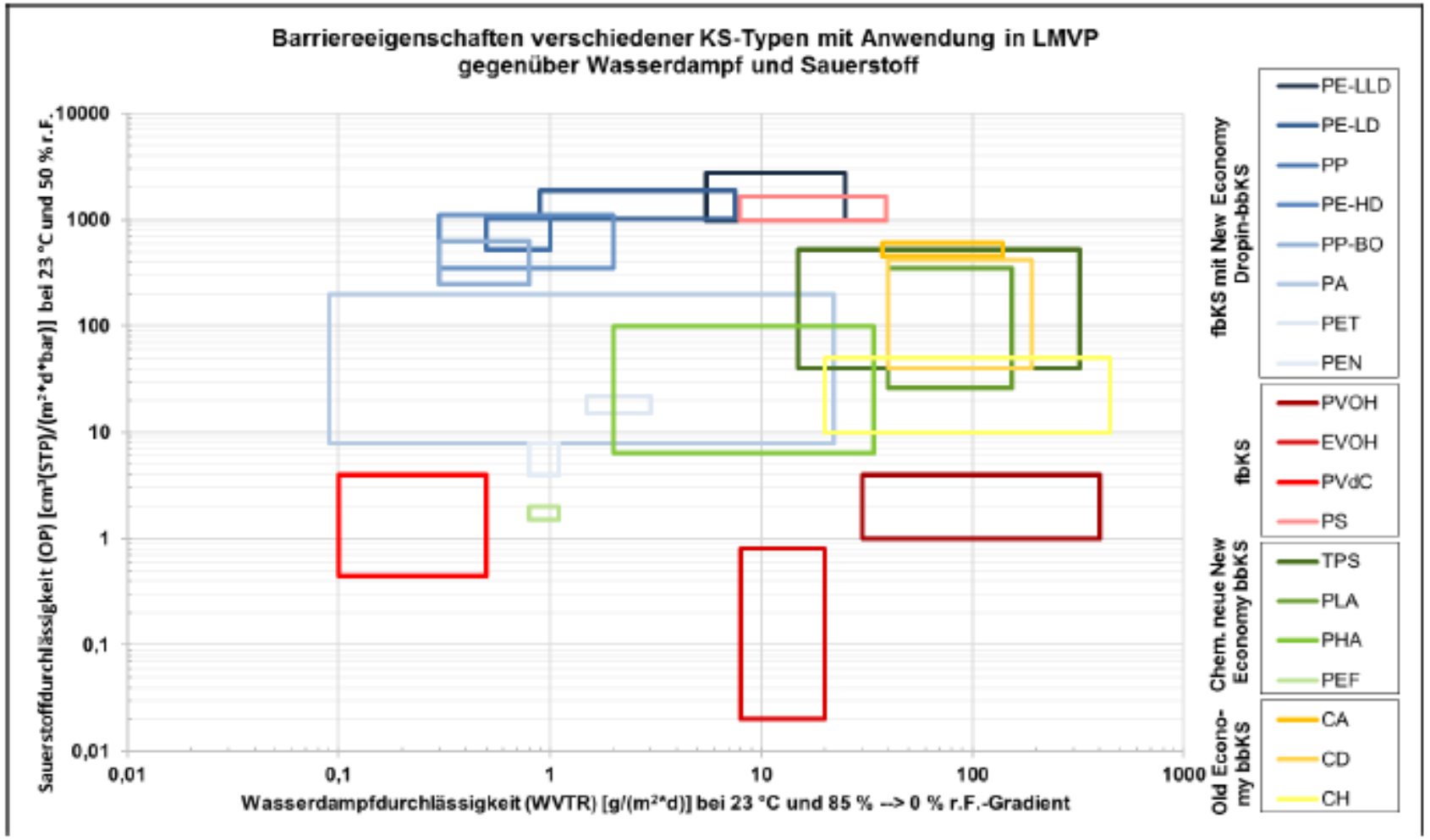
Demands for Packaging: Barriers of Polymers



Source= ifeu+ narocon 2017

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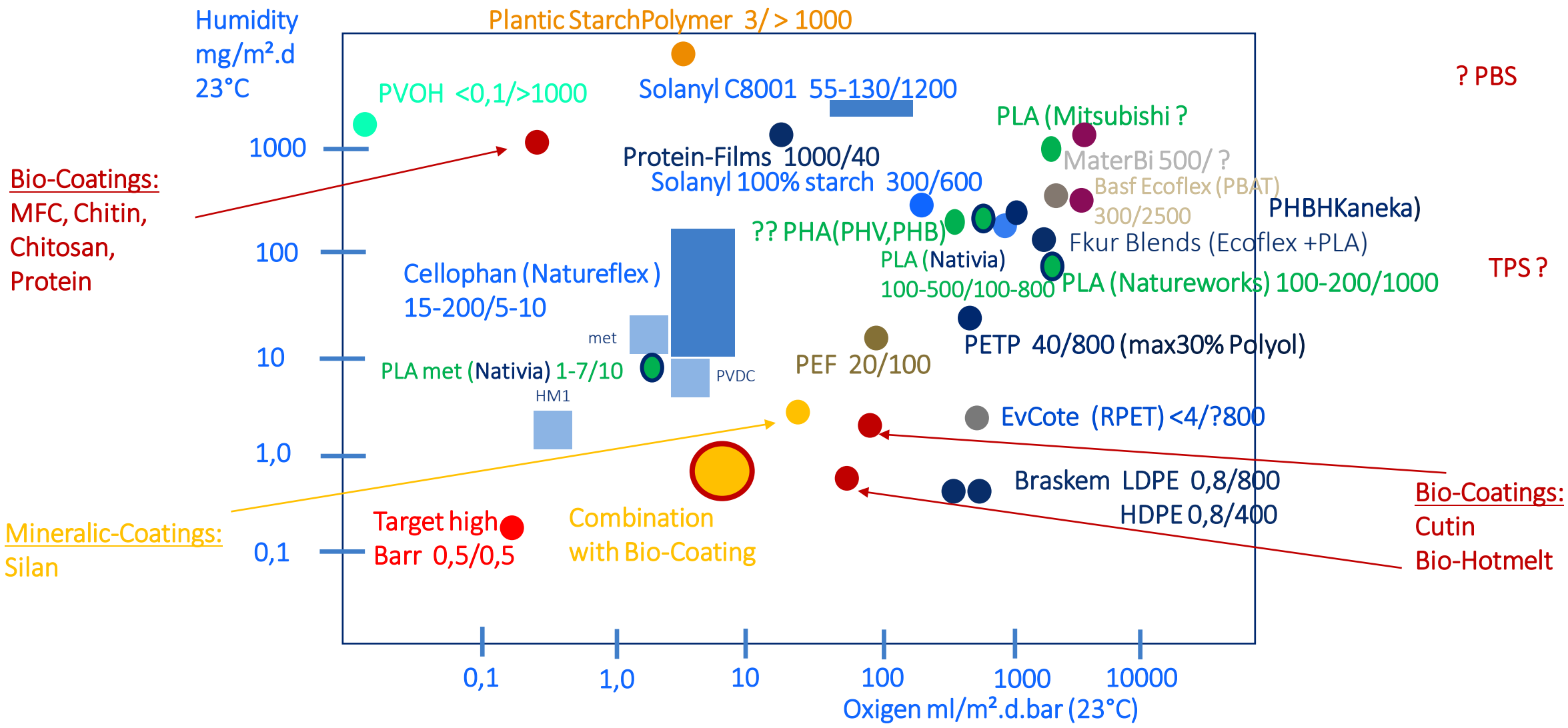
Biobased Rawmaterials

Barriers (*for thickness 30µm)*



[My, Biobased Rawmaterials, 210511]

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Demands for Packaging: SUP = SingleUsePlastic - Ban

European Legislation to reduce all packaging used OnTheGo or outside of restaurants

Reduce Littering and risk of uncontrolled disposal and microplastic

Turn potential Litter in waste uncritical for the environment

Demand = Only Fibre (purity > 95%) - no functional layers of polymers (fossil and biobased)

Open evaluation: functional layer = barrier

repulpable non-fibre in the paper = OK (repulpability > 95%)

colors and adhesive as non-separate layers = OK

Clear Target with unclear potential for success and unclear rules

Ban of packaging = ban of products which can not exist without packaging

= ban of ways of distribution in modern life (commuting, mobility, public life)

= contradiction with demands for hygene (Corona ?)

Impact on all FastFoodPackaging + OnTheGo but potential impact on all SingleUsePackaging

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Sustainable Paper Packaging: Functionalisation ok for SUP

Barrier-Paper

Functionalisation in paper-machines

Mineralic-coating
Clay + binding

Paper
fibre + binding

Barrier + Sealing
bio + Polymers

Full Surface-coating

Barrier-Functionalisation

Biobased - Ceramic

Barrier
Smoothening

Paper
fibre + binding

thin coatings for
Barrier
Sealing

Pattern

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Demands for Packaging: EndOfLife

EndOfLife of Mono-Paper-Packaging for Food has to be organised

Separate Collection – separate from non-packaging-paper (newspaper)

- separate from plastic-packaging (yellow-bin)

Repulping with washing (Foodwaste) + Desinfection ?

- secondary quality of fibre (odour ?)
- limited potential for application (toilet-paper ?)

Applications for non-hygenic-fibre ?

EndOfLife of Bio-Materials has to be installed + organized

clear and understandable for consumers (in Italy only biobased sachets in Supermarkets)

reliable separation from non-biodegradeable waste (for Recycling or Composte)

thin layers preferred versus thick films made from biobased materials (availability)

positive LCA-Balance versus fossile

Solution Huhtamaki = clear differentiation Bio from fossile polymers via combination with paper/fibre ?

recycling together with paper ?

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