



DIE LEBENSMITTELWIRTSCHAFT
WEIL ESSEN GESELLSCHAFT IST



„Neue Produkte brauchen Erklärung“

Dietary
Fibres

Compounds

Functional
Celluloses

Application
Services

Jürgen Sieg



Imbalance Energy Intake <-> Use

- too much snacking
- larger portion sizes
- Growing energy density of the food

DGE Ernährungsbericht



zu viel Energie über Fett und zu wenig über
Kohlenhydrate

Non-communicable Diseases

Diabetes, Obesity, CHD, ...

GLOBAL ISSUE

MİNTEL

1.4 billion are overweight
500 million of these are Obese
700 million by 2015

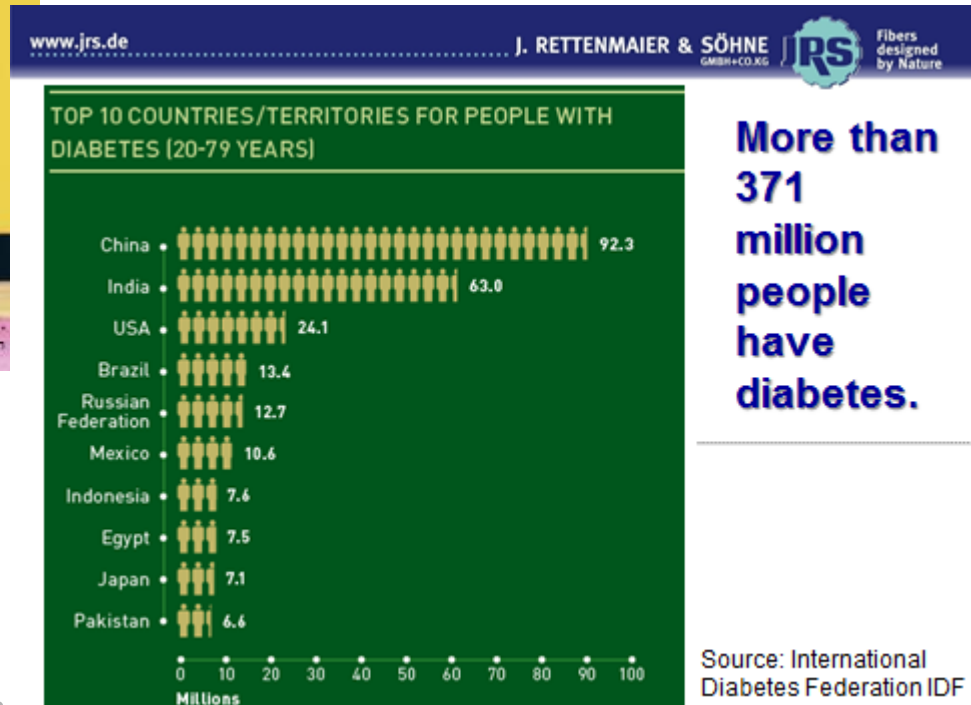


SOURCE: WHO

4

mintel.com

www.jrs.de



Economic impact of diabetes

- medical expenditure much higher in people with diabetes.
- annual cost globally > US\$ 827 billion.
- Losses in GDP worldwide estimated to be US\$ 1.7 trillion from 2010 to 2030



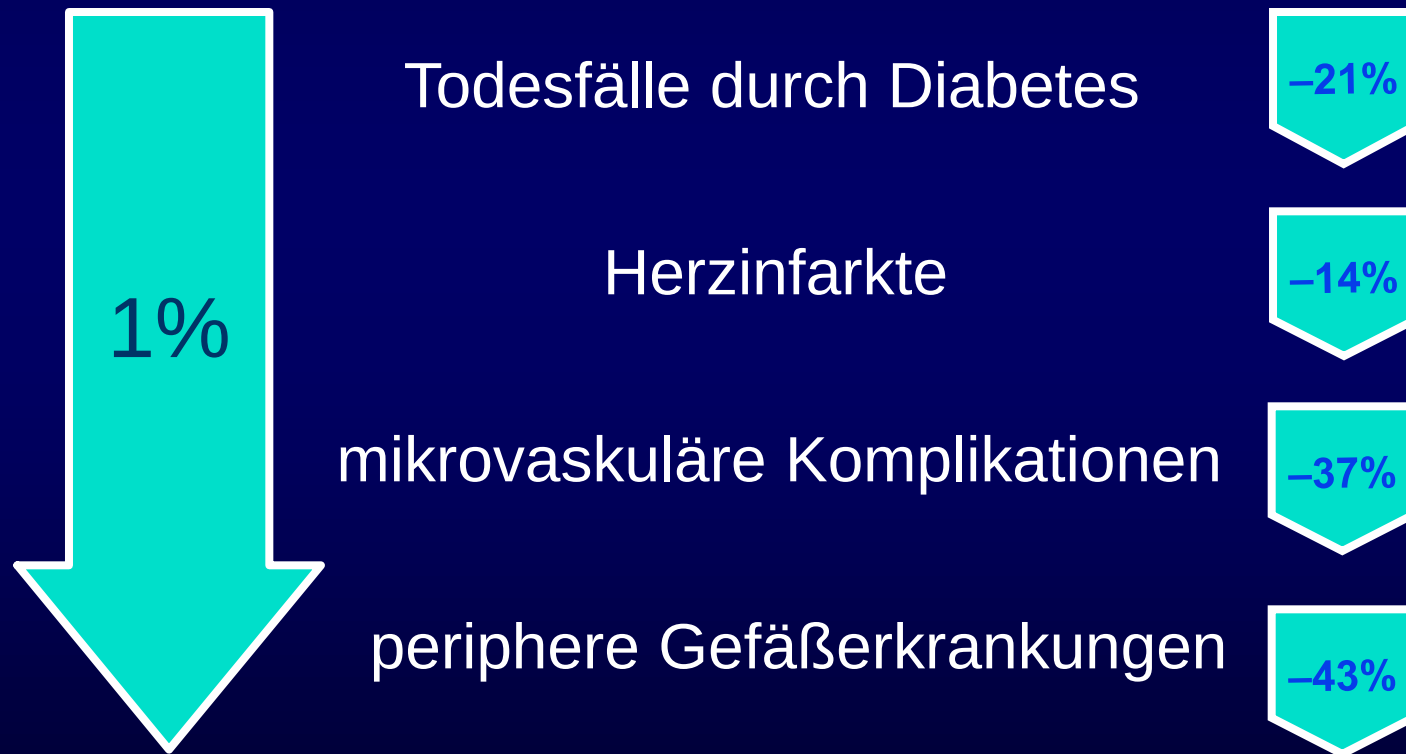
WORLD HEALTH DAY 2016
GLOBAL REPORT ON DIABETES



Lehre aus UKPDS: Bessere Diagnose und damit bessere Glucosekontrolle bedeutet weniger Komplikationen

JEDE 1%
Reduzierung in HbA1c

REDUZIERTES
RISIKO*



*p<0.0001.

Stratton IM et al. UKPDS 35. *BMJ*. 2000;321:405–412.



Scientific based Concept



Impact of cereal fibre on glucose-regulating factors

A.F.H. Pfeiffer

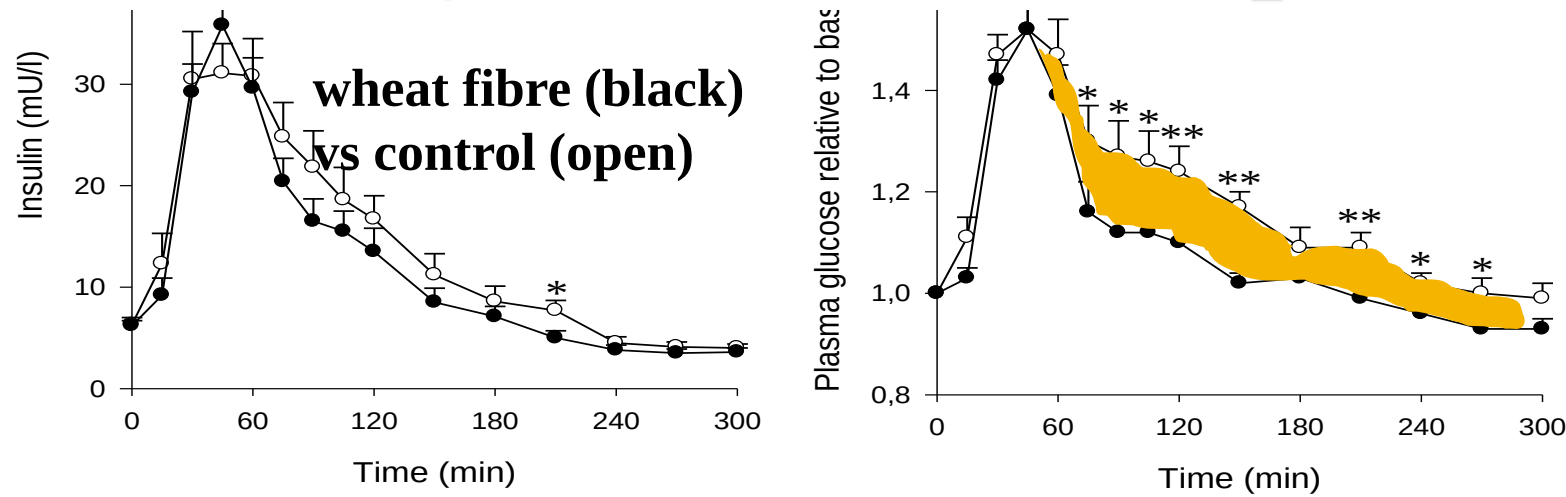


Department of Clinical Nutrition
German Institute of Human Nutrition – Potsdam Rehbrücke

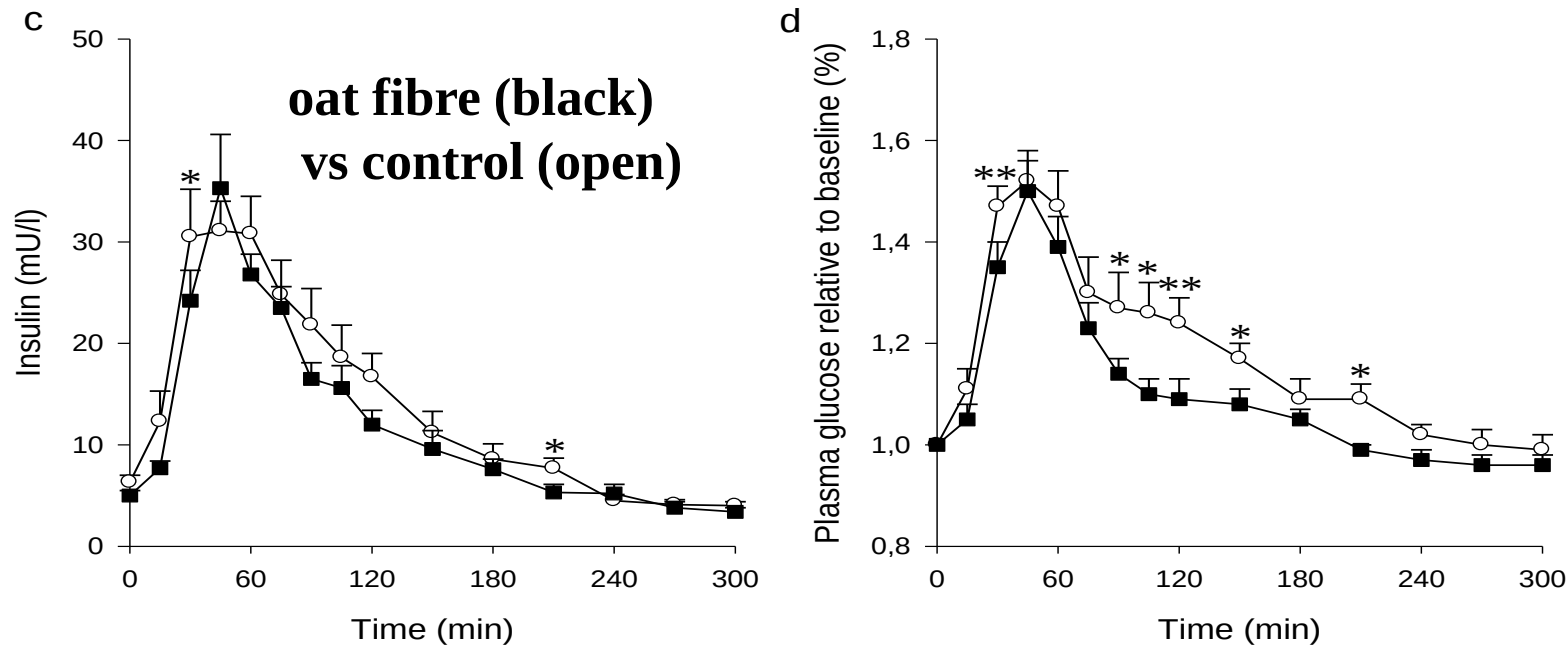
CHARITÉ CAMPUS BENJAMIN FRANKLIN

Department of Endocrinology, Diabetes and Nutrition
Charité University Medical School Berlin

DAY 2: Increase of insulin sensitivity on the day after fibre intake with wheat and oat fibre independent of incretin modifications



Weickert et al., Diabetologia 2005



Effects of isoenergetic diets differing in cereal fiber and protein content on insulin sensitivity in overweight humans

; Am J Clin Nutr

2011Aug;94(2):459-71

Clinical Study (Protein-Fibres-metabolic Syndrom)

Profimet

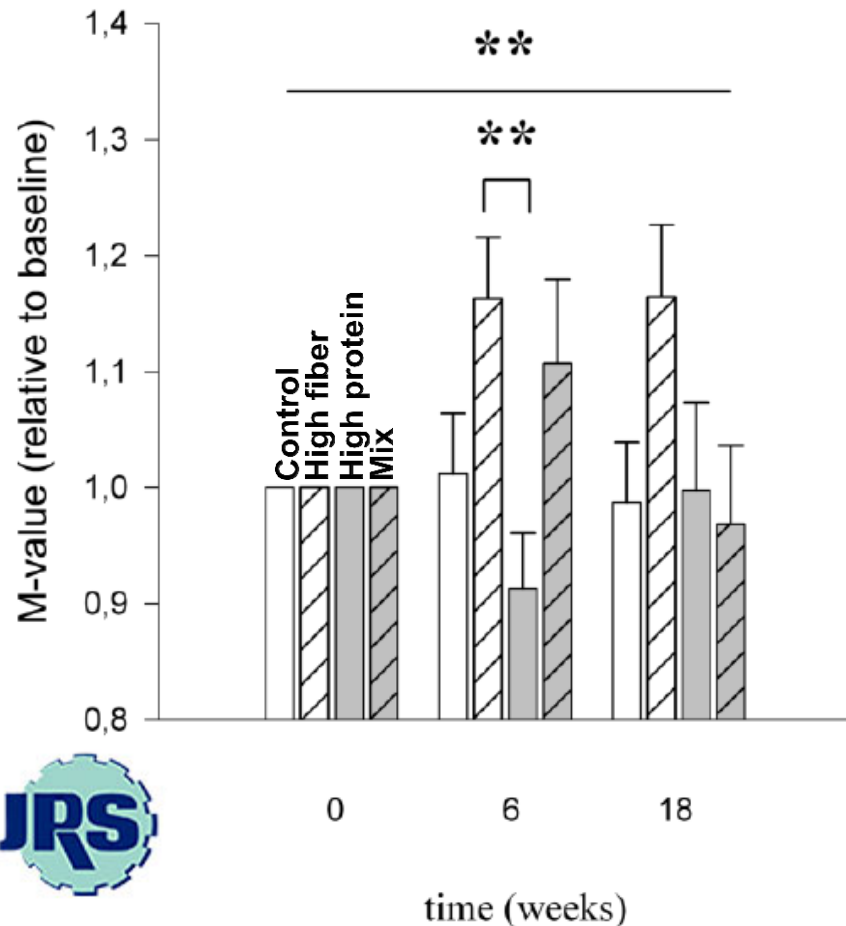


Department clinical nutrition

German Institute of Human Nutrition Potsdam-Rehbrücke (DIfE)

M.O. Weickert (PI), Andreas F.H. Pfeiffer

Effects of supplemented isoenergetic diets differing in cereal fiber and protein content on insulin sensitivity in overweight humans



After 6 weeks:

- whole-body insulin sensitivity was improved by 16% with HCF, unaffected in control and MIX, and decreased by 9% with the HP-diet

After 18 weeks:

- insulin sensitivity remained increased by 16% in the HCF-group



Product Portfolio



BU Food – Product Portfolio

Cereal Fibers

VITACEL® Wheat Fiber

VITACEL® Oat Fiber

Fruit / Vegetable Fibers

VITACEL® Organic Apple Fiber

VITACEL® Apple Fiber

VITACEL® Potato Fiber

VITACEL® Pea Fiber

Plant Fibers / Celluloses

VITACEL® Bamboo Fiber

VITACEL® Powdered Cellulose

VITACEL® Microcrystalline Cellulose

Soluble Fibers

VITACEL® Psyllium

Fibers

Colloidal Systems & Soluble Celluloses

VITACEL® Wheat Fiber Gel

VIV0APUR® Colloidal MCC

VIVAPUR® MC and HPMC

Fat Replacers

VITACEL® MCG

VITACEL® PLUS HF

Compounds

VIVASTAR® Dietary Fiber Drinks

VITACEL® Compounds

Functional Celluloses

Compounds



Concepts & Solutions



Concept – Fat reduction



	Standard Bratwurst	Fettred. & BS angereicherte Bratwurst
GRUNDBRÄT		
Eis/Wasser	23,00 %	33,15 %
Schweinefleisch S3	50,00 %	51,00 %
Schweinebacken	13,50 %	9,00 %
Nackenspeck	13,50 %	- %
VITACEL® MN 200	- %	6,85 %
Gesamt	100,00 %	100,00 %
WÜRZUNG		
Kochsalz	1,90 %	1,90 %
Gewürz allgemein	0,40 %	0,40 %
Kutterhilfsmittel	0,20 %	0,20 %
Gesamt	2,50 %	2,50 %
BEFFE-Gehalt	9,10 %	8,63 %
Protein	11,24 %	10,33 %
Fett	22,22 %	9,86 %
Ballaststoffe	-	6,01 %



The Legal Concept

Regulations: EU & D

- REGULATION (EC) No. 1924/2006
- COMMISSION REGULATION (EU) No. 432/2012
- REGULATION (EU) No. 1169/2011
- Leitsätze:
 - Fleisch und Fleischerzeugnisse / 2015
 - Brot und Kleingebäck / 2005

REGULATION (EC) No. 1924/2006

- **ENERGY-REDUCED**

energy value reduced by at least 30 % - indication of the characteristic/s

- **ENERGY-FREE**

product does not contain more than 4 kcal (17 kJ)/100 ml.

- **LOW FAT**

no more than 3 g of fat per 100 g for solids or 1,5 g of fat per 100 ml for liquids

- **FAT-FREE**

no more than 0,5 g of fat per 100 g or 100 ml.

- **SOURCE OF FIBRE**

at least 3 g of fibre per 100 g or at least 1,5 g of fibre per 100 kcal.

- **HIGH FIBRE**

at least 6 g of fibre per 100 g or at least 3 g of fibre per 100 kcal.

REGULATION (EC) No. 1924/2006

Article 10 - Specific conditions

2. HCs only be permitted :

- (a) a statement indicating the importance of a varied and balanced diet and a healthy lifestyle;
- (b) the quantity of the food and pattern of consumption required to obtain the claimed beneficial effect;
- (c) where appropriate, a statement addressed to persons who should avoid using the food; and
- (d) an appropriate warning for products that are likely to present a health risk if consumed to excess.

REGULATION (EU) No. 432/2012

Nutrient, substance	Claim	Conditions of use of the claim
Beta-glucans	Beta-glucans contribute to the maintenance of normal blood cholesterol levels	for food which contains at least 1 g of beta-glucans from oats, oat bran, barley, barley bran , ... per quantified portion. .. information to the consumer that the beneficial effect is obtained with a daily intake of 3 g of beta-glucans



„Neue Produkte brauchen Erklärung“

- Teil 2 -

Dietary
Fibres

Compounds

Functional
Celluloses

Application
Services

Andreas Bohner





Zutaten: Weizenmehl, Wasser, Sauerteig (Weizenmehl, Wasser), Butter, Fett, Hefe, Zucker, Salz, Sojamehl, Natriumacetat (Säureregulatoren, Säure)

Nährwertinformation (pro 100g)

Energie	1120 kJ / 264 kcal
Fett	4,00 g
Kohlenhydrate	48,00 g
Ballaststoffe	2,40 g
Protein	8,40 g



Zutaten: Weizenmehl, **Haferfaser**, Gluten, Salz, Hefe, Olivenöl, Wasser

Nährwertinformation (pro 100g)

Energie	809 KJ / 91 kcal
Fett	1,58 g
Kohlenhydrate	38,11g
Ballaststoffe	7,06 g
Protein	6,04 g



Zutaten: Roggenvollkornmehl, Roggenschrot, natürlicher Sauerteig (Wasser, Roggenvollkornmehl, Roggenschrot), Wasser, Weizenvollkornmehl, Sonnenblumenkerne, Weizenmehl, Roggenmehl, Invertzuckersyrup, Karamelsyrup, Salt, Hefe

Nährwertinformation (pro 100g)

Energie	995 kJ/ 237 kcal
Fett	7,0 g
Kohlenhydrate	32,0 g
Ballaststoffe	6,6 g
Protein	7,5 g

www.jrs.de



Zutaten: Schweinefleisch, Wasser, Schweinebacke, Dextrin, **Weizenfaser**, Nitritpökelsalz, Kutterhilfsmittel, Gewürze

Nährwertinformation (pro 100g)

Energie	507 kJ /122 kcal
Fett	8,7 g
Kohlenhydrate	0,8 g
Ballaststoffe	6,2 g
Protein	10,1 g

J. RETTENMAIER & SÖHNE
GMBH + CO KG



Fibers designed
by Nature

Warum sind Nahrungsfasern wichtig?



12. DGE Ernährungsbericht 2013 Deutschen Gesellschaft für Ernährung

Die Zufuhr der Ballaststoffe liegt bei Männern und Frauen mit **19 g/Tag** bzw. **18 g/Tag** deutlich unterhalb des

Richtwerts von mindestens 30 g/Tag.

Für Diabetiker: 40 g/Tag empfohlen.

Bundesbürger essen zu wenig Ballaststoffe !



Warum sind Nahrungsfasern wichtig?

Vergleich Nahrungsfasern vs. Speisekleie

(Ballaststoffe der 2. Generation vs. Ballaststoffe der 1. Generation)

	Nahrungsfasern (2. Generation)	Speisekleie (1. Generation)
Ursprung	Pflanze	Schale
Gesamtballaststoff (nach AOAC) i.Tr.	~ min. 96%	~ 45%
davon lösliche Ballaststoffe	~ 3%	~ 3%
Brennwert in kcal/g	0 (kalk. in EU = 2,0)	~ 2
Protein	< 0,5%	~ 16%
Fett	-	~ 5%
Stärken / Kohlenhydrate	-	~ 33%
Gluten	-	+
Phytinsäure	-	+
Farbe / Geschmack	weiß / neutral	beige / spelzig
Gesamtkeimzahl	< 10 ³	10 ⁵ bis 10 ⁷



400g Vollkornbrot ~ 30g Nahrungsfasern



1,5kg Salat ~ 30g
Nahrungsfasern

Warum sind Nahrungsfasern wichtig?

WORLDWIDE CLINICAL STUDIES & JRS COOPE

- Study „Prague“
- Study „Diabetes 2000“
- Study „Low GI“
- Prof. Dr. Feldheim, University of Kiel
- Prof. Dr. Pfeiffer, University of Berlin
- Study „Optifit“
- Cooperation with Charité Berlin and DIfE (German Institute of Nutrition)

... and many published studies worldwide

CHARITÉ CAMPUS BENJAMIN FRANKLIN

DIfE

Profimet

SUMMARY OF DIETARY FIBRE HEALTH BENEFITS

- promotes weight control when overweight
- delays the rise in blood sugar in diabetics
- lowers the cholesterol levels
- eliminates functional disorders of the bowel system
- reduces the risk of colon cancer
- ... and many others

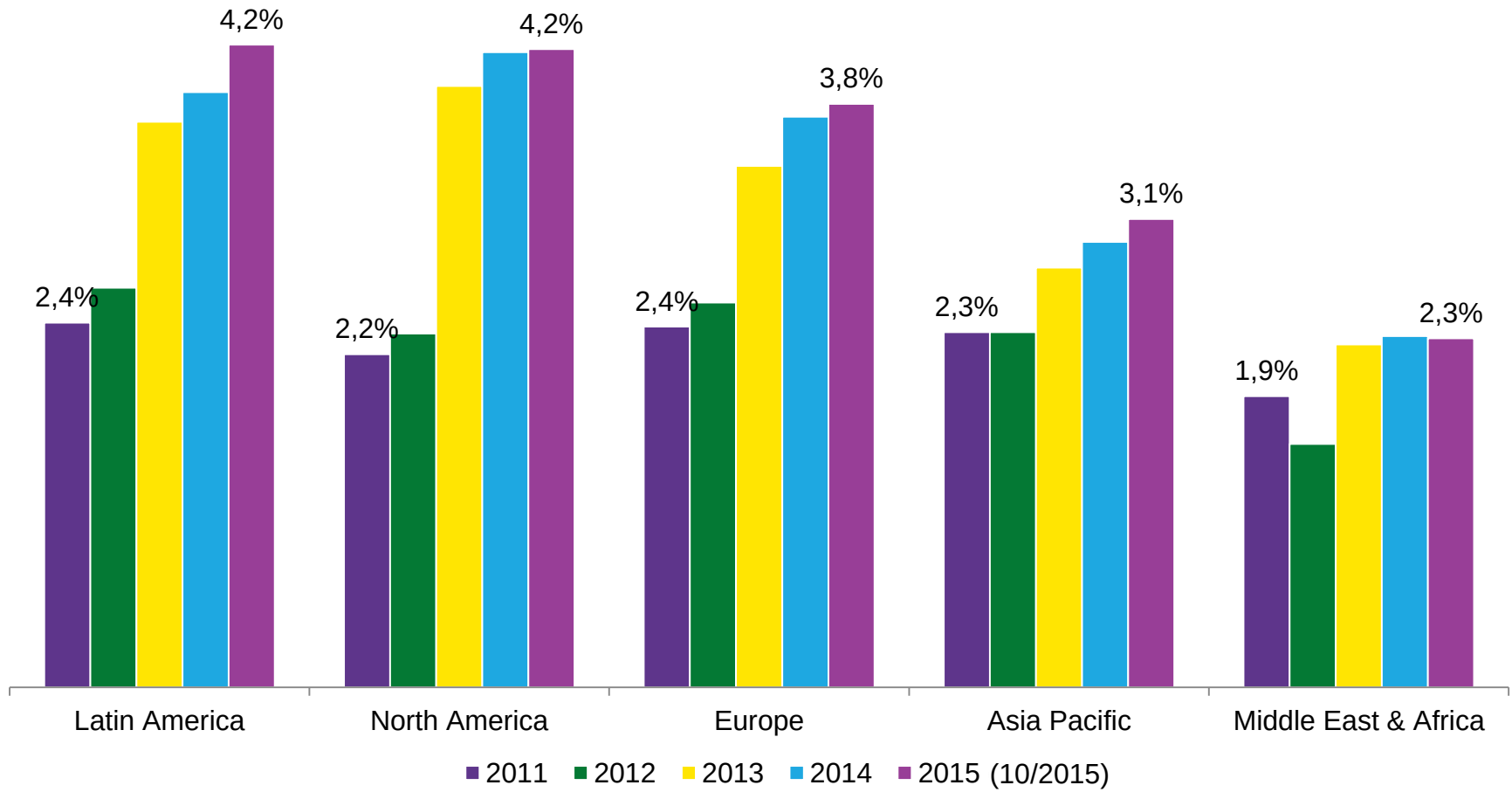
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Fibers designed
by Nature

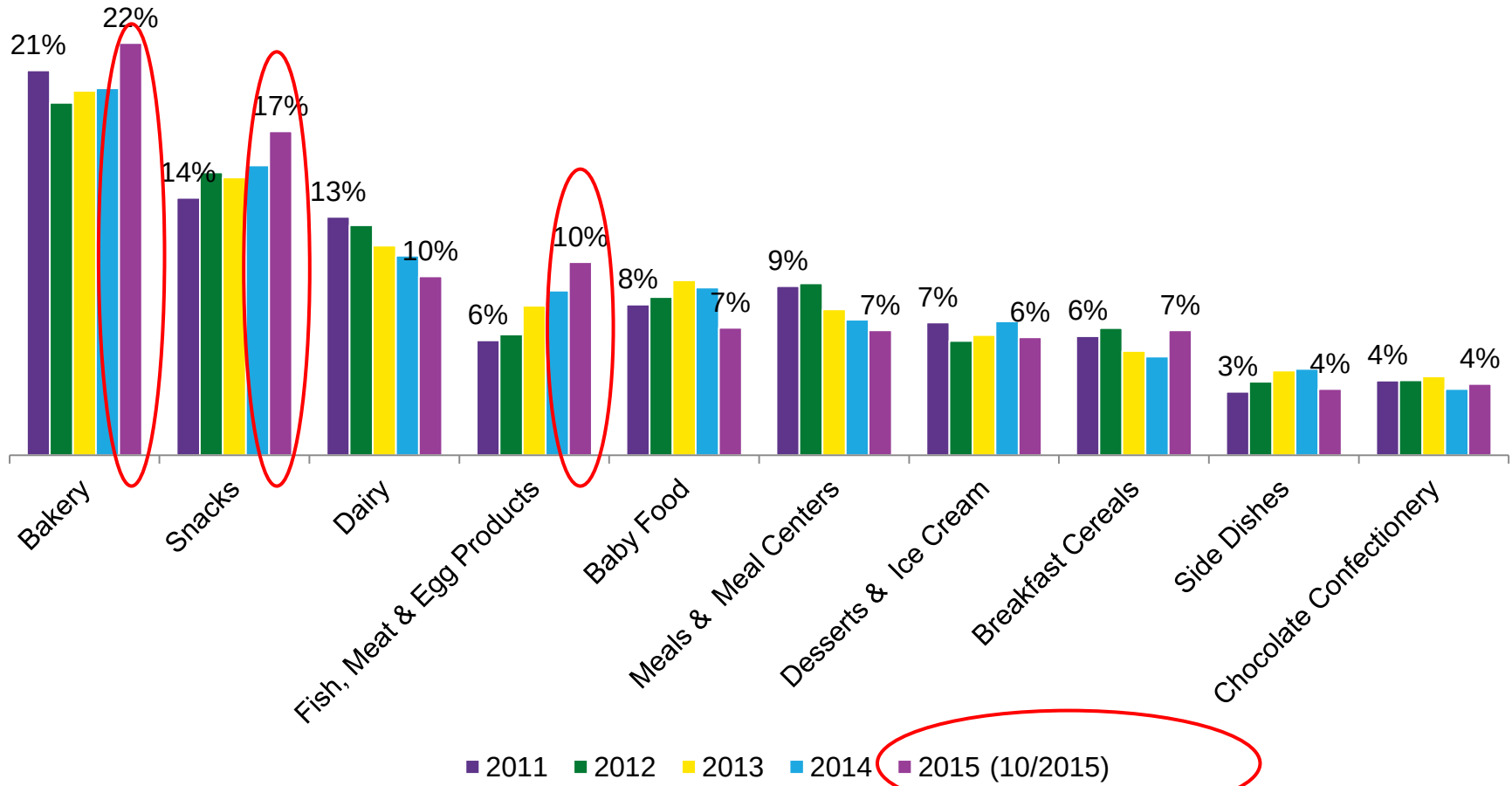
Einsatz von Nahrungsfasern – global nach Regionen

Global new food launches containing functional fibres, by region, as a % of total launches in each region, 2011-15 (YTD)



Use of functional fibres has grown noticeably in snacks and fish/meat/egg products

Global new food launches containing functional fibres, by top 10 categories, 2011-15 (YTD)



“Neue Produkte brauchen Erklärung” - Fazit -

Generelle Frage:

?? andere Länder sind erfolgreicher – Warum... ???

- Wissen Konsumenten zu wenig?
- Sind Produzenten zu verhalten mit Innovationen?
- Sind Behörden zu restriktiv bei Innovationen?
- Staatliche Reformulierungsprojekte in D & EU bzgl. Reduktion der Energiedichte, aber meist ohne Ballaststoffe (trotz geringster Energiedichte!)

➔ **Mangelnde Umsetzung gesundheitspolitisch bedeutender Empfehlungen**

➔ **Nudging zum Wohle des Konsumenten ??**



Vielen Dank für Ihre Aufmerksamkeit!

