



**Advanced bio-performance
materials for a sustainable future**

Agenda



- > OVERVIEW AMSilk
- > PROTEIN & SPINNING TECHNOLOGY
- > SUSTAINABILITY
- > FIBER & DEVELOPMENT TOOLBOX
- > KEY FIGURES & OUTLOOK





Who is AMSilk

World's first industrial supplier of smart protein based materials



MUNICH



BIOTECH



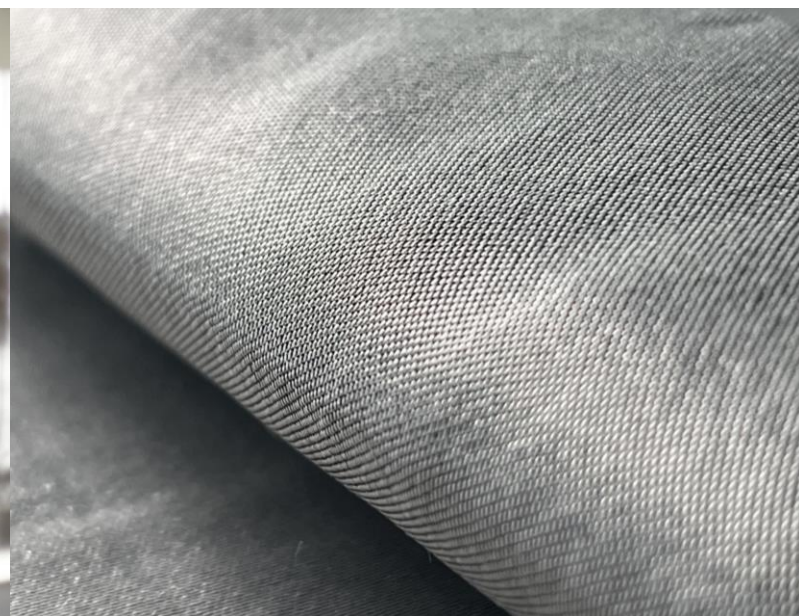
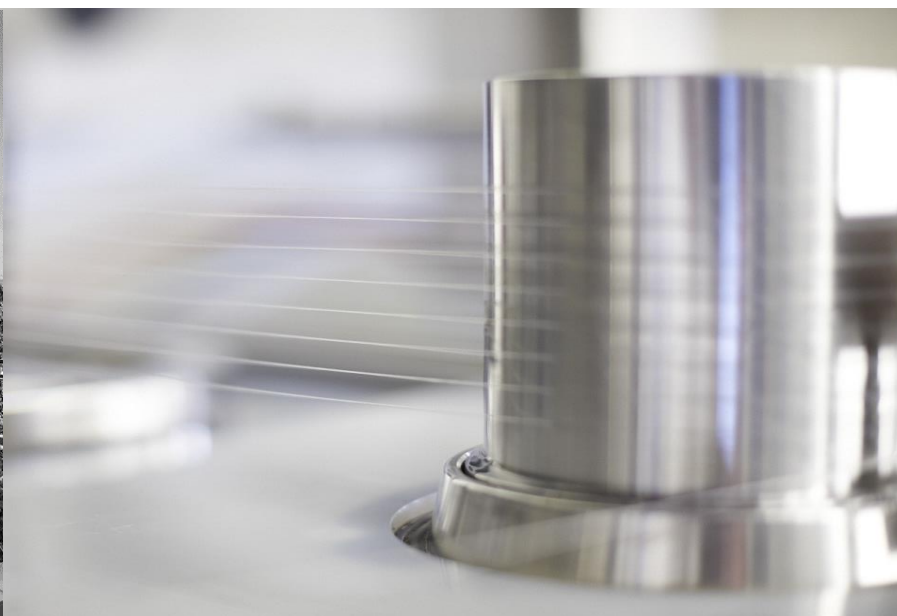
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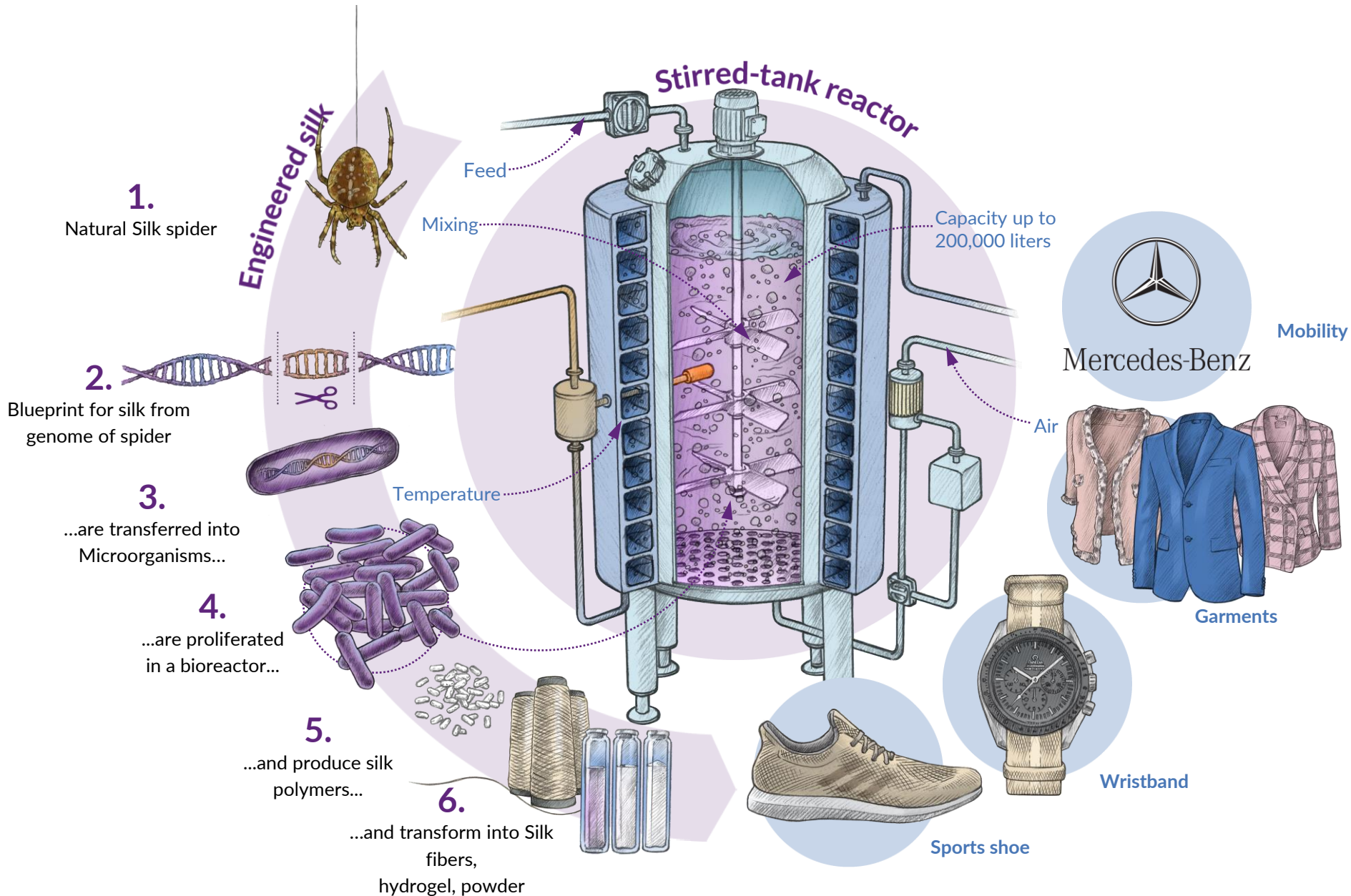
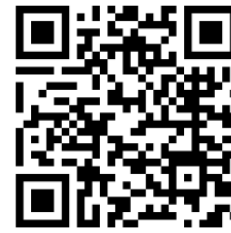
NATURE
DRIVEN



STRATEGIC PARTNERSHIPS WITH CMOs



AMSilk's Production Technology





AMSilk's reason to exist: ENVIRONMENTAL INTEGRITY

- ✓ **Plant based, renewable** raw material
- ✓ **Low-impact** production
- ✓ Petroleum free, **no microplastic**
- ✓ Vegan: **no animal** ingredient included, no animal testing
- ✓ Fully **recyclable**
- ✓ Created with end of life in mind: **biodegradable**, no landfill



Among environmental global issues, our biofabricated silk protein fibers tick all boxes regarding sustainability

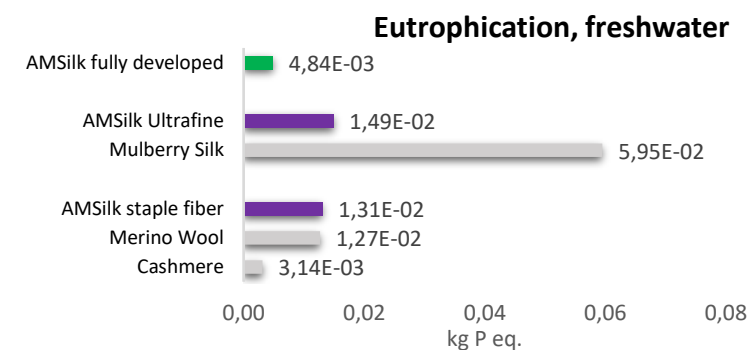
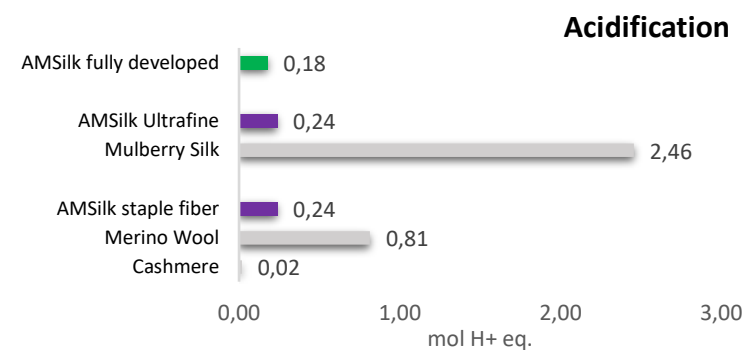
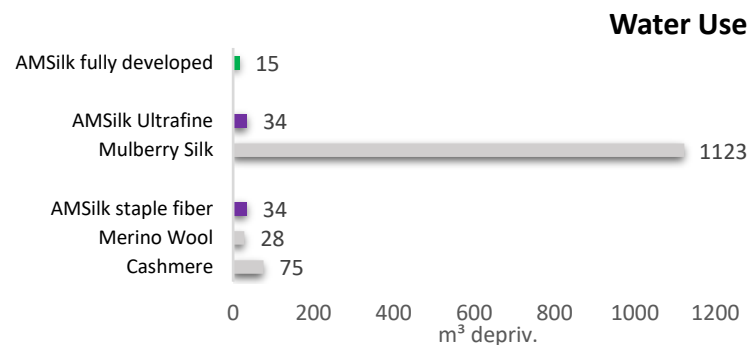
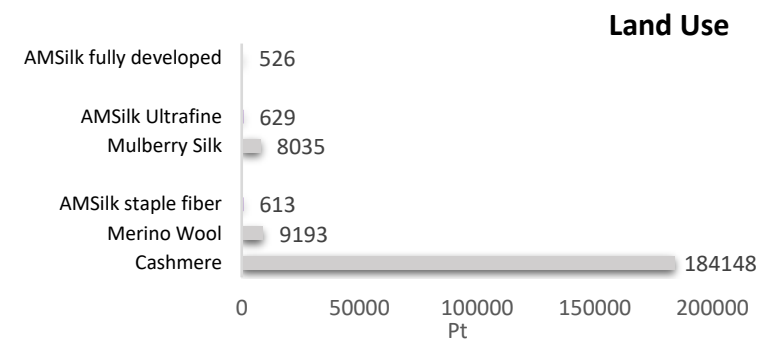
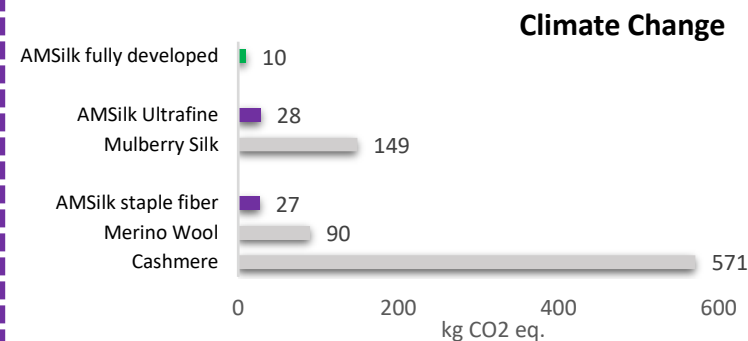
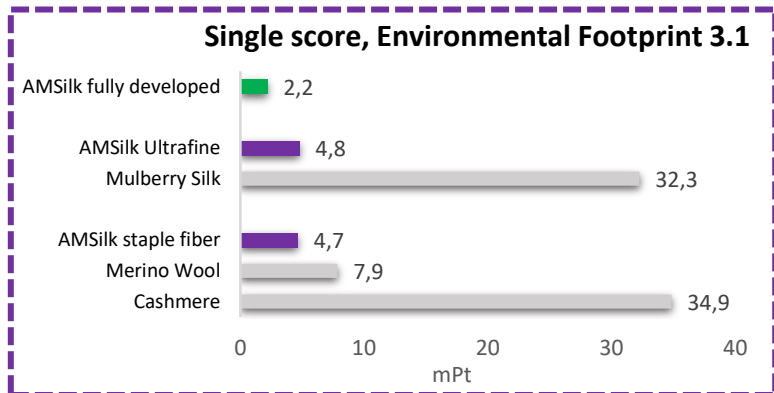
AMSilk's Certificates



LABEL	DESCRIPTION	RESULT	ISO / GUIDELINES	CERTIFICATION BODY
	Human-ecological requirements for baby articles	Product Class I	ISO 17050-1; Annex XVII REACH; CPSIA; GB 18401	Hohenstein Textile Testing Institute
	Aqueous aerobic biodegradation	Readily biodegradable (85 % in 28 days)	OECD 301B	SGS Institute Fresenius
	Biodegradation in marine environment	Biodegradation of 90 % in 196 days	ASTM D6691	Organic Waste Systems
	Antibacterial activity on plastics and other non-porous surfaces	Reduction of 99 -100 % bacterial adhesion compared to PES	ISO 22196:2011 (mod.)	MTC Microbial Testing Competence
	Vegan and non-animal testing certification	Certificated	Vegan Trademark Criteria	The Vegan Society
	Microplastic free	Certificated	DIN SPEC 4872	Hohenstein Textile Testing Institute



AMSilk fiber production Life Cycle Assessment



IN AVERAGE, AMSILK'S FIBER SUSTAINABLE IMPACT IS 85% LOWER THAN MULBERRY SILK.



AMSilk's Multifilaments



BIOSTEEL® 300dtex f40 x2

ULTRAFINE 95dtex f40



OUR GOAL IS FOR ULTRAFINE FIBERS TO OUTSTAND MULBERRY SILK WITH A HIGH LEVEL OF CUSTOMIZATION ACHIEVABLE

Biosteel Applications



Mobility

- Green Luxury
- Reliable and durable
- Clean (bacteriostatic)
- Petroleum Free

Accessories

- Biosteel® long life
- Silky hand feeling
- Plastic free
- Hightech fascination
- Thermoregulation



Mercedes-Benz

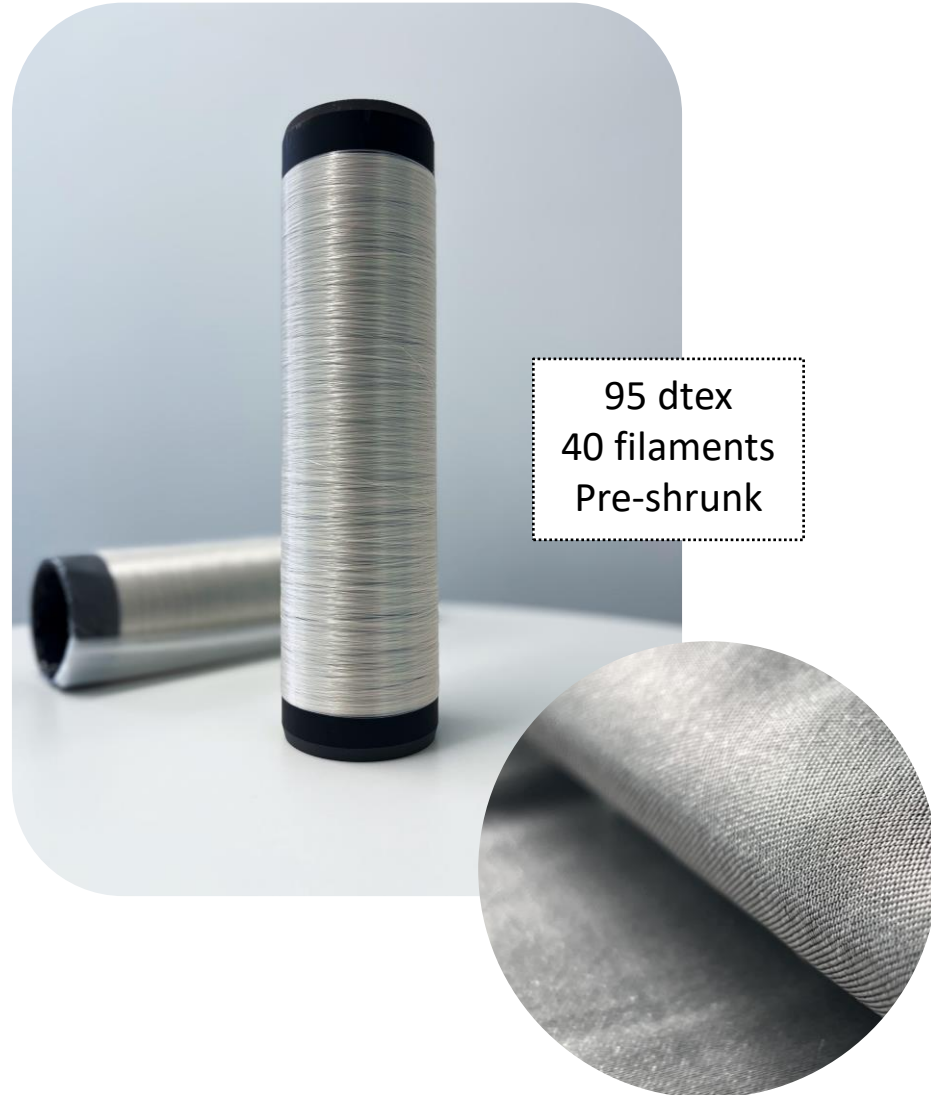


AMSilk's Ultrafine Fiber

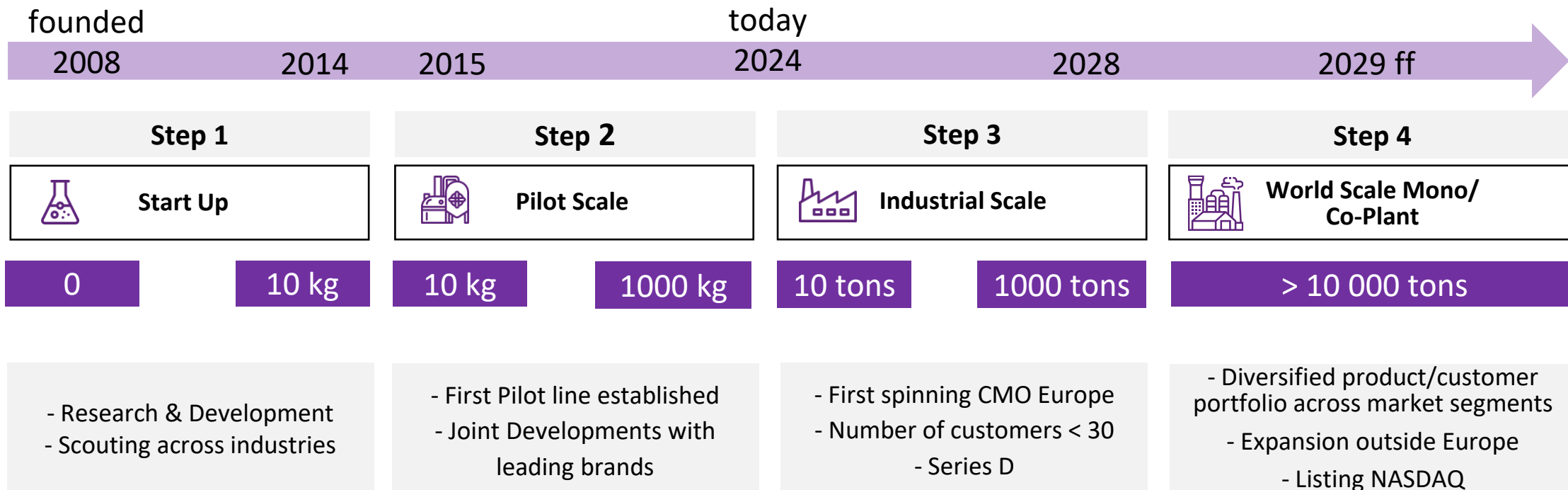


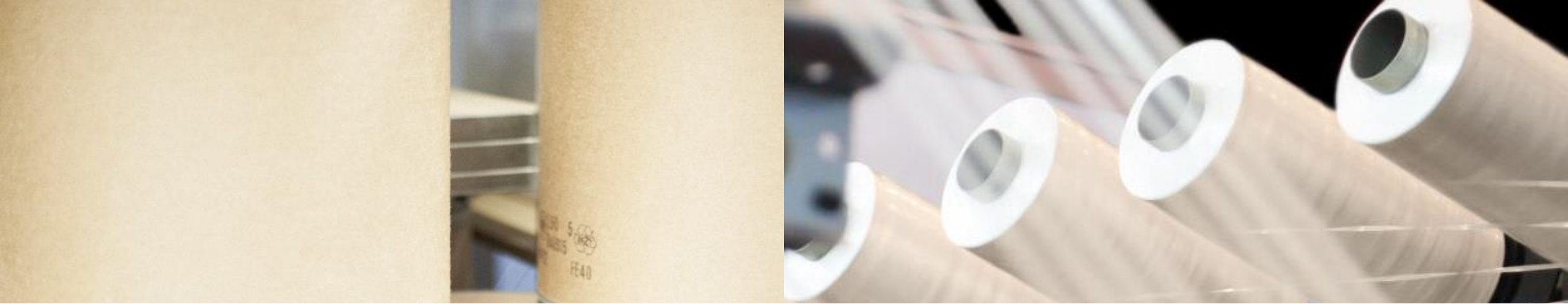
Smart Performance

- **Fossil oil free and vegan**
- **Soft, smooth and bright** -> luxurious appearance
- **Wrinkle resistant** -> easy care
- **Good heat insulator** -> cold in summer, warm in winter
- **Bacteriostatic** -> no odors can arise
- **Hydrophilic** -> good moisture management
- **Plug and Play** in existing textile value chain



Key Figures and Outlook






AMSilk

