

REPLACING PLASTICS WITH THE NEXT GENERATION OF PAPER

BIOECONOMY FORUM LATVIA
9 MARCH 2017

— — —
TUOMAS MUSTONEN
FOUNDER, CEO



WWW.PAPTIC.COM
TWITTER @PAPTICLTD

PAPTIC® AGENDA



1

MARKET
DISRUPTION
IS ENABLER

2

PAPTIC
ADDRESSES
CONSUMER
NEED

3

TECHNOLOGY
MUST
DIFFERENTIATE

4

INDUSTRIAL
SCALE-UP
NEEDED

PAPTIC® AGENDA



1

MARKET
DISRUPTION
IS ENABLER

PLASTIC WASTE
IS DESTROYING
OUR OCEANS





“STOPPING
THE USE OF
PLASTIC BAGS
IN OUR STORES
IS THE RIGHT
THING TO DO”

Frank Henke
Vice President
ADIDAS Group



A background of blue LEGO bricks with the word 'LEGO' embossed on them. In the foreground, there is a pile of various colored LEGO bricks including yellow, blue, black, green, red, white, and grey.

“LEGO GROUP
WILL INVEST 135 MILLION EUR
TO DEVELOP
& IMPLEMENT
SUSTAINABLE
MATERIALS”

Jørgen Vig Knudstorp
CEO and President
LEGO Group



SUSTAINABILITY
STRATEGY OF
TARGET
IS BUILT
TO SUPPORT
RE-USE AND
RECYCLING

PREREQUISITES FOR PACKAGING SUSTAINABILITY



A

PERFORMANCE
OF MATERIAL

B

RE-USE AND
END OF LIFE

C

WILLINGNESS OF
CONSUMERS FOR
RIGHT BEHAVIOUR



PAPTIC® AGENDA



2

PAPTIC
ADDRESSES
CONSUMER
NEED

PAPTIC IS
THE NEXT
GENERATION
OF PAPER

RENEWABLE
RECYCLABLE
REUSABLE



PAPTIC® ENVIRONMENTAL POSITION



- NEW CATEGORY BETWEEN
PAPER AND
REUSABLE BAGS

PAPTIC IS NOT
PLASTIC.

CONSUMER
PREFERRED WAY
TO REDUCE
OCEAN PLASTIC
ACCUMULATION

BASED ON
CERTIFIED (FSC/
PEFC) WOOD AND
RENEWABLE RAW
MATERIALS

RECYCLABLE WITH
CARDBOARD
(WHERE SYSTEMS
AVAILABLE)



DURABLE FOR MULTI-
USE AND CONSUMERS
PREFER TO REUSE
PAPTIC

PAPTIC HAS LOWER
CO2E FOOTPRINT THAN
OTHER ALTERNATIVES
(PAPER, PLASTIC).



Seppälä

**GOES
PAPTIC®
IN JUNE**

ELEVATING BRAND VALUE OF CUSTOMERS



DIFFERENTIATION
BY NEW MATERIAL
CATEGORY

COMBINATION OF
SUSTAINABILITY
AND PREMIUM

NEW STANDARD OF
SUSTAINABILITY
COMMUNICATION

PAPTIC BAG ENHANCES THE BRAND IMAGE

PAPTIC BAG IS ASSOCIATED WITH HIGH CLASS BRANDS.

"Of course there's a difference if the product is stuffed into a plastic bag or given to you in a nice high-quality bag" -
Woman, 35 years

"The bag has an effect on the vibes you get from the store. It somehow finalizes the shopping experience." -
Woman, 36 years



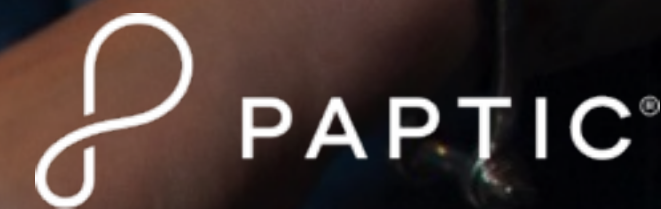
CHOICE OF PAPTIC BAG IS A SUSTAINABILITY ACTION THAT CONSUMERS NOTICE AND PREFER

"The bag tells something about the brand, about the big picture. About what they want to say about their values. That's why material choices are important." -
Woman, 52 years

FOCUS IN THE RIGHT COMPANIES

					
Testimonials	<p>”This is too good replacement of plastic bag, unseen quality in this price range.”</p>	<p>“Paptic renewability exceeds all other competitors”</p>	<p>“We’re interested to become one of the first global users of PAPTIC®.”</p>	<p>“I find the material interesting and we continue testing it, looking forward to reel testing.”</p>	<p>“I love Paptic! When can we replace all bags.”</p>
Annual bag/ packaging purchase value	37 million €	22 million €	23 million €	24 million €	€250.000

PAPTIC CONSUMER FEEDBACK



"Great Move!"

woman in her early twenties

"Now we can put all our goods in these bags, we do not need the plastic bags from other stores"

8 year old girl to her mother

"This feels nature-friendly"

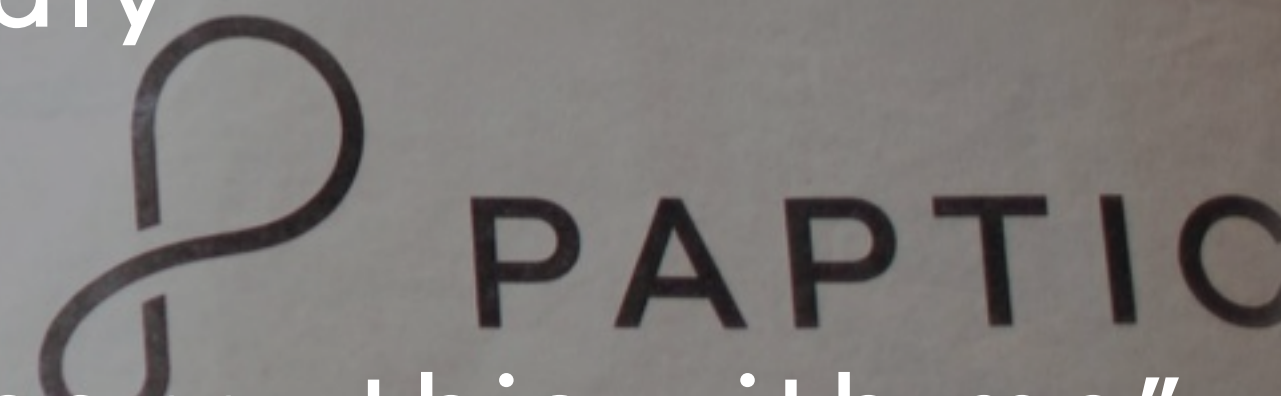
Woman 30 years

"Wonderful and stylish, I am happy to carry this with me"

Man in his 60s

"This shows that Seppälä is a sustainable brand"

Woman 45 years



PAPTIC[®] BEATS BIOPLASTICS



>80% RENEWABLE

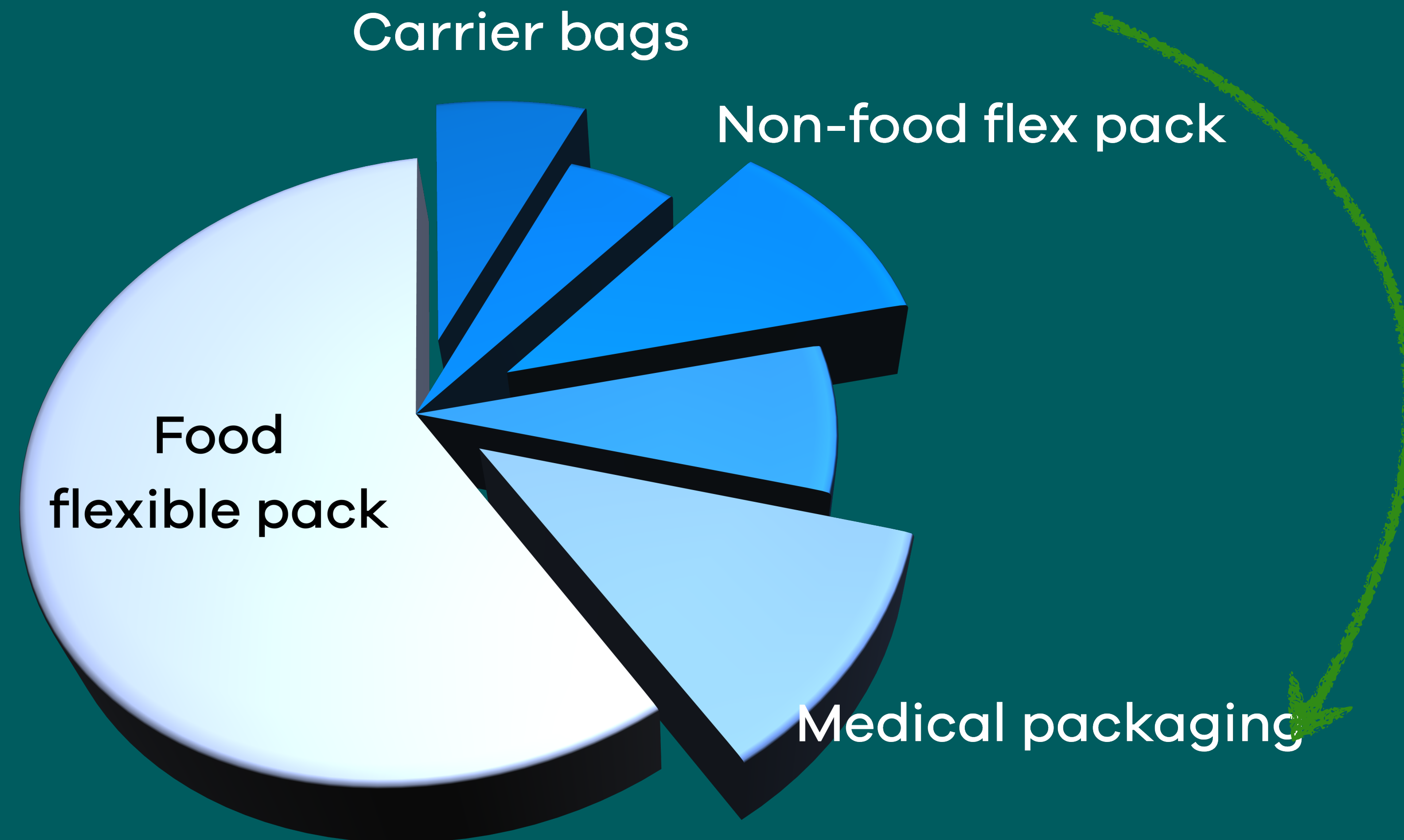


RECYCLABLE



CONSUMER APPEAL

FLEXIBLE PACKAGING MATERIALS IN EUROPE AND US ARE >30 BILLION EUR MARKET



Global bioplastics market CAGR 14%, reaching €28 billion by 2020.

TOP BRANDS TESTING PAPTIC®



German fashion
chain

UK cosmetics chain

Global sport brand

German optics
chain

Global fashion
brand

UK retail chain

Global toy
brand

Consumer
electronics
brand

Major US
retail chain

Global snacks
company

EU leading
packaging
converter

Medical paper
producer

CARRIER BAGS

NON-FOOD
FLEX PACK

MEDICAL
PACKAGING

BALANCED GO-TO-MARKET STRATEGY



< 6 month sales cycle

> 12 month sales cycle

> 18 month sales cycle

Easy entry,
market in disruption
wide specification

Application specific
requirements

Strong regulatory
demands and
standards

Limited market size,
negative growth

Large market, specific
focus, growing +4% CAGR

Large market,
growing +9% CAGR

Direct end-user
marketing

Focused development with
end-users (JDA model)

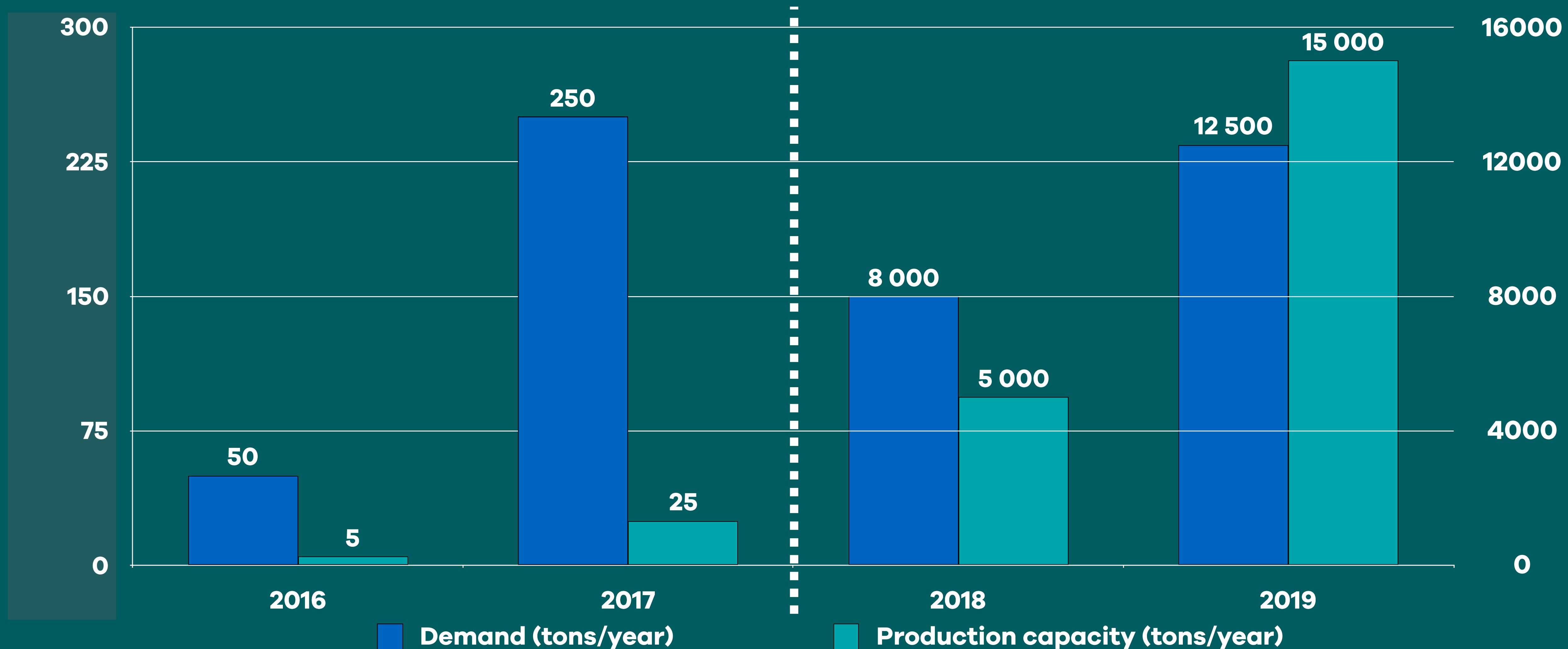
Partnering model

CARRIER BAGS

NON-FOOD
FLEX PACK

MEDICAL
PACKAGING

MARKET DEMAND EXCEEDS PRODUCTION CAPACITY



PAPTIC® AGENDA



3

TECHNOLOGY
MUST
DIFFERENTIATE

PAPTIC® TECHNOLOGY TODAY

DISRUPTIVE
PAPTIC® FOAM
PROCESS
TECHNOLOGY
WITH IPR
PORTFOLIO
OF 6+ PATENTS



TARGETING
CAPEX EFFICIENT
SCALE-UP BY
UTILISATION OF
EXISTING
INFRASTRUCTURE

BENEFITS OF FOAM FORMING



Excellent formation

High bulk
products

NEW PRODUCTS

Wide variety of raw materials

Resource savings potential
in water & energy

EXCELLENT FORMATION WITH LONG FIBRES



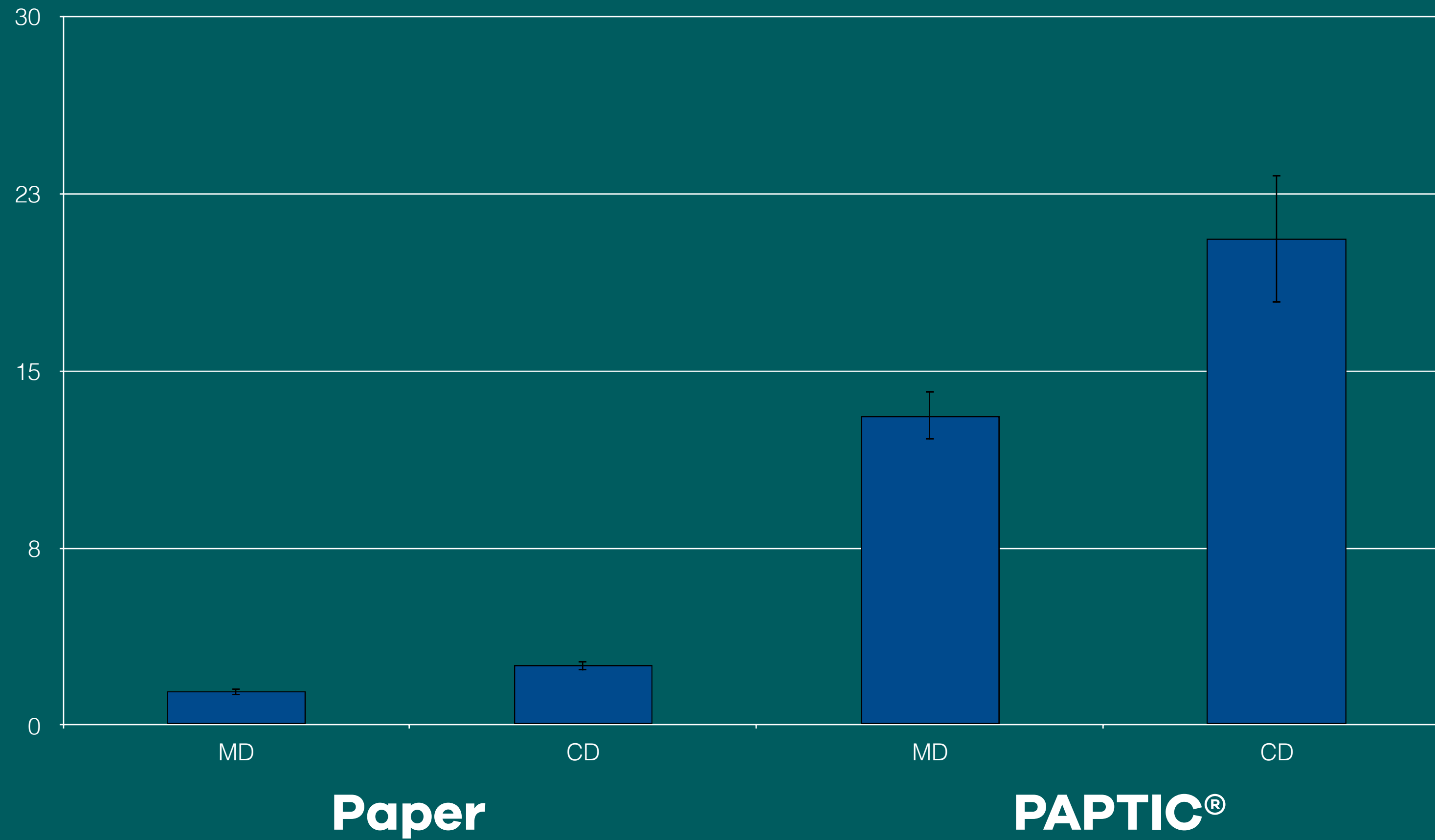
Paper

PAPTIC®

FORMATION+RAW MATERIALS+RIGHT CHEMISTRY = PAPTIC®



Stretch, %



PAPTIC[®] AGENDA



4

INDUSTRIAL
SCALE-UP
NEEDED

PAPTIC® PLUGS INTO EXISTING VALUE CHAIN

R&D

Building IPR and
new products

PAPTIC®
FOCUS

PRODUCTION

Integration
with existing
infrastructure

PARTNERSHIPS

CONVERTING

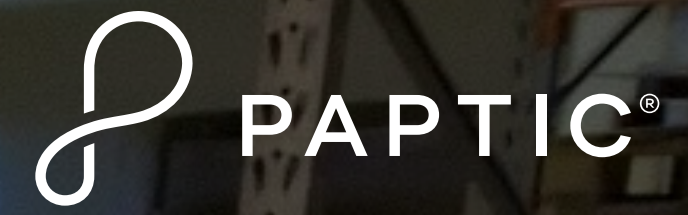
Utilisation of
existing
machines

SALES &
MARKETING

Building PAPTIC®
brand with brand
owner focus

PAPTIC®
FOCUS

PAPTIC® SCALE-UP RELIES ON PARTNERSHIPS



PILOTING
PARTNERS
FOR PROCESS
SCALE-UP

PROCESS
TESTING WITH
TECHNOLOGY
PARTNERS

INDUSTRIAL
SCALE-UP WITH
LOCATION
PARTNERS

PRESS RELEASES

✓ 2017 (2)

✓ February

STARTUP COMPANY
PAPTIC IS PLANNING A
PAPER MACHINE
INVESTMENT TO
CHALLENGE PLASTIC
WITH A NOVEL WOOD
BASED PACKAGING
MATERIAL

START-UP-YRITYS PAPTIC
SUUNNITTELEE
PAPERIKONEINVESTOINTIA
TUODAKSEEN MUOVIN
HAASTAVAN
PAKKAUSMATERIAALIN
MARKKINOILLE

> 2016 (3)

> 2015 (1)

STARTUP COMPANY PAPTIC IS PLANNING A PAPER MACHINE INVESTMENT TO CHALLENGE PLASTIC WITH A NOVEL WOOD BASED PACKAGING MATERIAL

PRESS RELEASE

FREE FOR PUBLICATION

Finnish startup company Paptic Ltd is planning a paper machine investment to upscale the production of its patented PAPTIC material to industrial scale. The demand for PAPTIC material on the market allows for the company's quick transition to industrial-scale production. Currently Paptic is negotiating the financing of the investment with a number of actors. The new production line is scheduled to start production in 2018 and its impact on employment will be more than 30 people.

Bioeconomy is a highly capital-intensive industrial sector. Paptic's goal is to move to industrial-scale production in 2018, less than four years after the company's launch. Paptic's business model is built on strong partnering in the traditional paper industry value network.

The forest industry has closed down a lot of paper manufacturing capacity in recent years. Paptic seeks to take advantage of this existing infrastructure to upscale production with a capital-efficient model. Sharing infrastructure also creates significant synergies when production begins.

BUSINESS MODEL EVOLUTION

BUSINESS
DEVELOPMENT
2016-2017

GROWTH OF
CUSTOMER
BASE BY BAG
SALES AND
PARTNERSHIPS

REVENUE 1 M€

EARLY
GROWTH
2017-2020

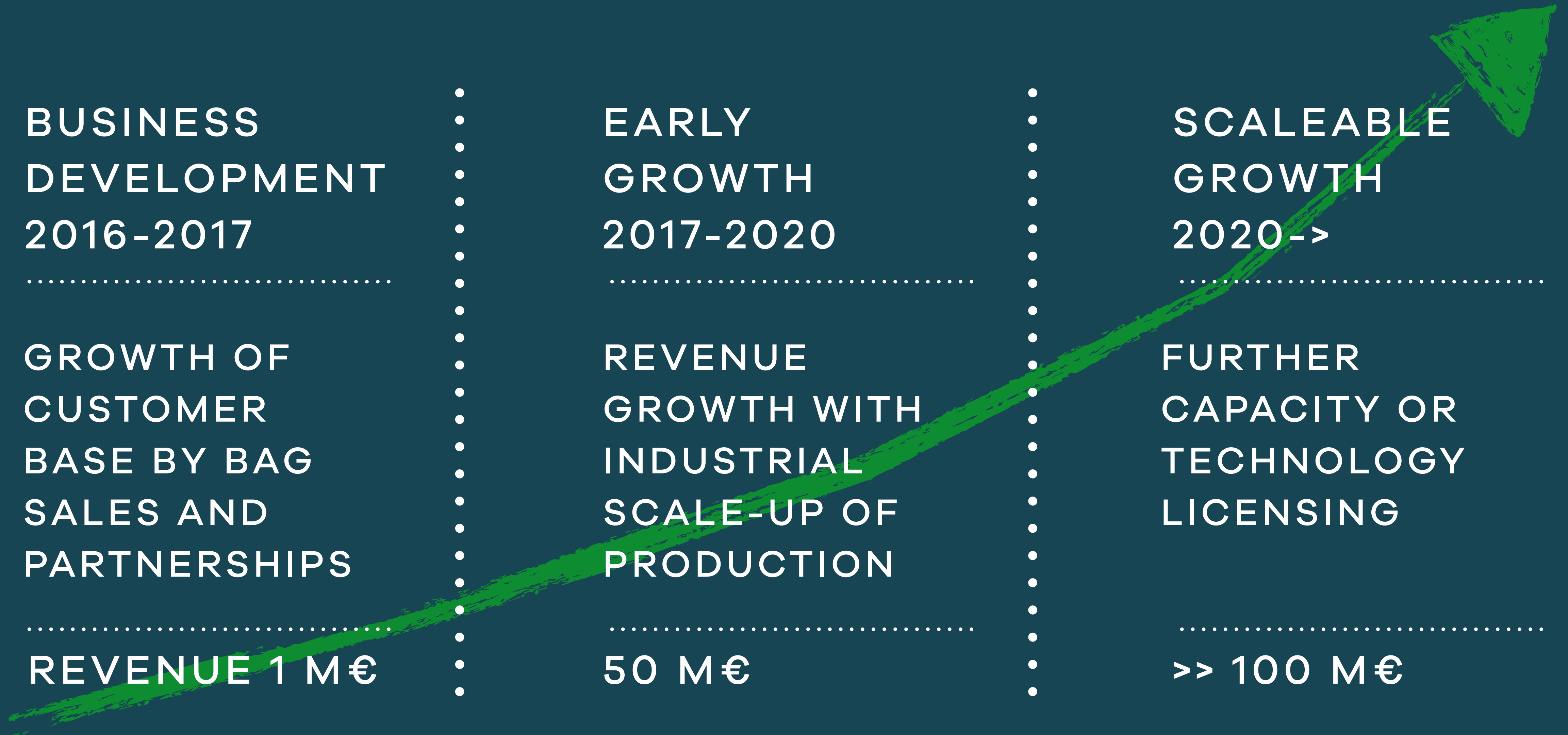
REVENUE
GROWTH WITH
INDUSTRIAL
SCALE-UP OF
PRODUCTION

50 M€

SCALEABLE
GROWTH
2020->

FURTHER
CAPACITY OR
TECHNOLOGY
LICENSING

>> 100 M€



TARGETING INDUSTRIAL SCALE-UP



FINANCING
Q3/2017

.....
CLOSE
INVESTMENT
ROUND OF
€10 MILLION



START-UP
Q3/2018

.....
CAPACITY FOR
€50 MILLION
REVENUE WITH
29% EBITDA

PAPTIC® SUMMARY



1

PAPTIC IS
THE NEXT
GENERATION
OF PAPER

2

REPLACING
PLASTIC
CARRIER BAGS
IS NOW



3

SEEKING
€10 MILLION
FOR SALES AND
TECH SCALE-UP

1) GLOBAL PLASTICS CHALLENGE

In response to global plastic waste challenge, PAPTIC provides an environmentally friendly alternative to plastics.

2) VALUE PROPOSAL

Elevating Retailer's and Brand Owner's brand by activating consumers senses with a sustainable versatile branded solution

3) PAPTIC TEAM

Over 100 yrs of packaging & paper industry experience supported by C-suite industrial advisors.

4) MARKET

Sustainable packaging materials market growing at CAGR 14%, targeted to reach €28 billion by 2020.



INFO@PAPTIC.FI
WWW.PAPTIC.COM

5) STRONG IPR

Patent portfolio of 5 patent applications and 2 granted patents.

6) DISRUPTIVE TECHNOLOGY

Paptic is the next generation of paper. Environmental benefits of paper combined with function of plastics and textiles.

7) SCALE-UP

Seeking partners for industrial scale-up. Today pilot plant in operation, first industrial factory in opened in 2018.

+358 50 5987 516
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