

Bridging the Future

Moorim's Dream



Welcome to Moorim's Dream

Sit back and relax as we introduce to you
our realization of Moorim's Dream.



Moorim Pulp & Paper Business in 2010

Premium
Printing Paper

MOORIM PAPER

(Paper: 600,000 MT)

High value-added
Specialty Paper

MOORIM SP

(Paper: 80,000 MT)

The First and Only
Pulp & Paper integrated mill in Korea

MOORIM P&P

(Pulp: 425,000 MT)

A photograph of a modern glass skyscraper with the 'MOORIM' logo in large, white, three-dimensional letters mounted on its upper facade. The building's glass reflects the sky and clouds.

MOORIM



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A black and white photograph of a modern glass skyscraper. The word "MOORIM" is mounted on the building's facade in large, white, three-dimensional block letters. The building's glass reflects the sky and clouds.

MOORIM

Moorim leads **innovation** in the paper industry

We have a Dream to make
our customer's life more comfortable and rich.

Our Dream is...



MOORIM

The image shows the lower portion of a modern building with a glass facade. The word "MOORIM" is displayed in large, white, three-dimensional capital letters on the building's exterior. The glass reflects the sky and clouds. The building's architecture features sharp angles and a curved section where the logo is placed.



Expansion Plan

(2011-2020)

2011, Construct 1st Integrated Machine

2015, Construct 2nd Integrated Machine

2020, Construct 3rd Integrated Machine
& 3rd Pulp Machine

The 1st Step

In 2011, Construct 1st Integrated Machine

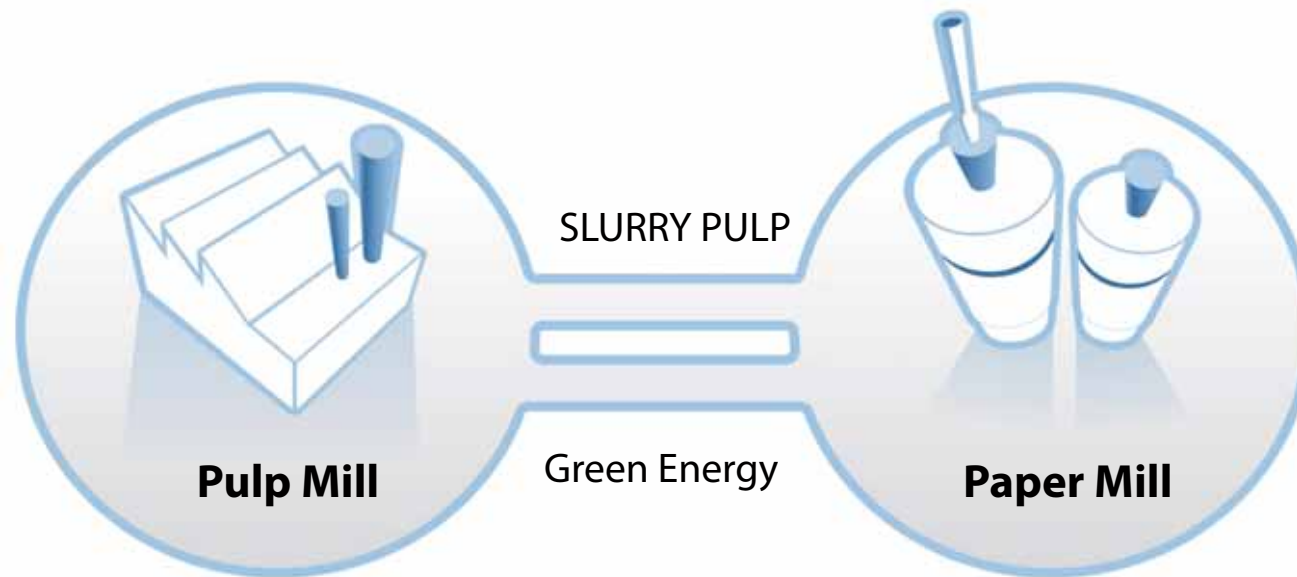
- Main Product: CWF (100~150 gsm)
- Production Capacity
Paper: 450,000 MT
(Coated: 315,000 MT/ Uncoated: 135,000MT)
- Speed: 4,265 ft/min
- Paper Width: 28.5 ft

PM1 (2011)



1st Step

The first and only integrated mill in Korea



Here, we not only get the benefits of reducing drying cost of pulp and dissolving cost of paper, plus get the benefits of the improvement of fiber strength.

1st Step

For the Customer satisfaction

Eco-friendly facilities

- Minimizing the drying Energy for the state of the art technology for press part in PM
- Minimizing the Electricity for application of high efficient motor and lighting

For the competitive quality

- Selection of paper machine facilities for best formation and bulk
- Application of off-line coater for the best printability of CWF(100~150 gsm)

For Quick Response Delivery

- Selection of lay out for flexible production according to market condition
- Application of **intermediate roll storage** for Quick Response Delivery
 - even delivery throughout month
 - improving lead time by at least 2 weeks

1st Step

Paper Production of 1.13 million MT in 2011



1st Step

Paper Mass Production of 1.13 million MT in 2011

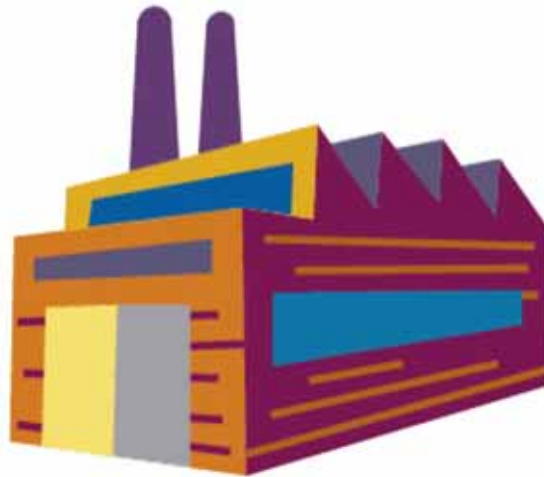


1st Step

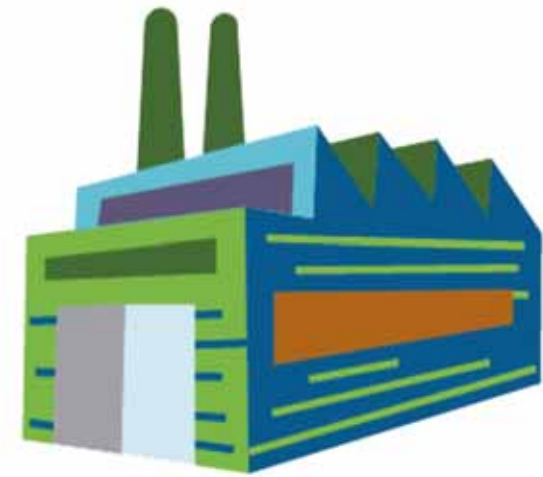
Plantation-Pulp-Paper Vertical integration



Plantation
in domestic and abroad



Producing high quality
mixed Hardwood Pulp



With this vertical integration,
Moorim has
global competitiveness

High Quality Products

Item	unit	100 gsm		150 gsm	
		Moorim	the Best spec in Korea	Moorim	the Best spec in Korea
Basis weight	gsm	100	100	150	150
Thickness	μm	80	76	122	118
Roughness	μm	< 0.60	0.63	< 0.60	0.63
Whiteness	%	> 110	108	> 110	110
Paper gloss	%	78	76	78	76

Eco-Energy Mill

Moorim is leading the way in protecting and rehabilitating the natural environment we live in.



The low carbon products

- Running the mill with steam produced in recovery boiler by evaporation the weak black liquor, without burning fossil fuels.

So, we call it 'Eco- Energy mill'.

*Moorim saves fossil fuels.

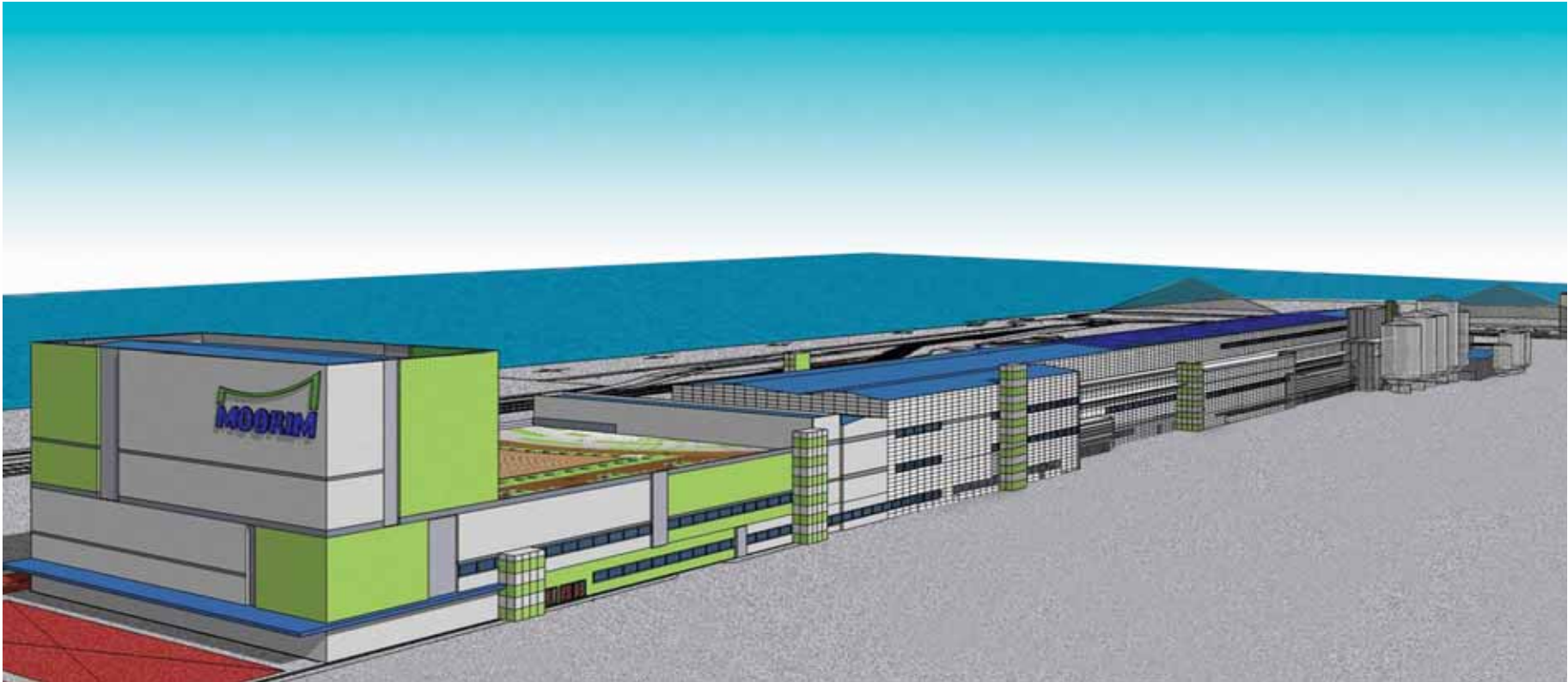
The amount of saving energy is over 256,500km. It is that a car(2000cc) travels around a world 77,000 times

1st Step

Main Facilities

1st Step

° Scale of the pulp & paper integrated machine



Total Floor Areas: **856,613** ft²(79,582 m²)

Length: **2,057** ft(627m), Width: **321.5** ft(98m), Height: **141** ft (43m)

minimum 147.6 ft(45m)

minimum 88.6 ft(27m)



1st Step

° Paper Machine



Specification

- Manufacturer: VOITH
- Speed: 4,265 ft/min
(1,300m/min)
- Wire Width: 30.5 ft (9.3m)
- Paper Width: 28.5 ft (8.7m)
- Basis Weight
 - Uncoated paper: 70~90 gsm
(47~61 lbs)
- Base Paper: 60~105 gsm
(41~71 lbs)
- Output: 450,000 MT

- Hybrid former
- Two-shoe press
- Advanced Metering size press

1st Step

° Coating Machine

Specification

- Manufacturer : VOITH IHI
- Speed: 5,249 ft/min
(1,600m/min)
- Face Length: 29.2 ft (8.9m)
- Paper Width: 28.3 ft (8.65m)
- Basis Weight: 100~150 gsm
(67.5 ~101 lbs)



- Perfect combination of IHI Vari-dwell[®] coating station and VOITH center winding Sirius[®] Reel
- IR Dryer + Air Floatation Dryer

1st Step

° Supercalender

* Feature of Janus Calender



Specification

- Manufacturer : VOITH
- Speed: 3,937 ft/min (1,200m/min)
- Paper Width: 28.2 ft (8.59m)
- The number of Roll: 10
- The number of Machine: 2

- Oil + Gas heating system
- Zone Control Nipcorect Roll[®] system
- Partial Nip operation

The 2nd Step

In 2015, Construct 2nd Integrated Machine

PM2₍₂₀₁₅₎

PM1

- Main Product: CWF (under 100 gsm)
- Production Capacity
Paper : 500,000 MT
- Speed: 5,906 ft/min
- Paper Width: 28.5 ft

The 3rd Step

In 2020, Construct 3rd Integrated Machine and 3rd Pulp Machine

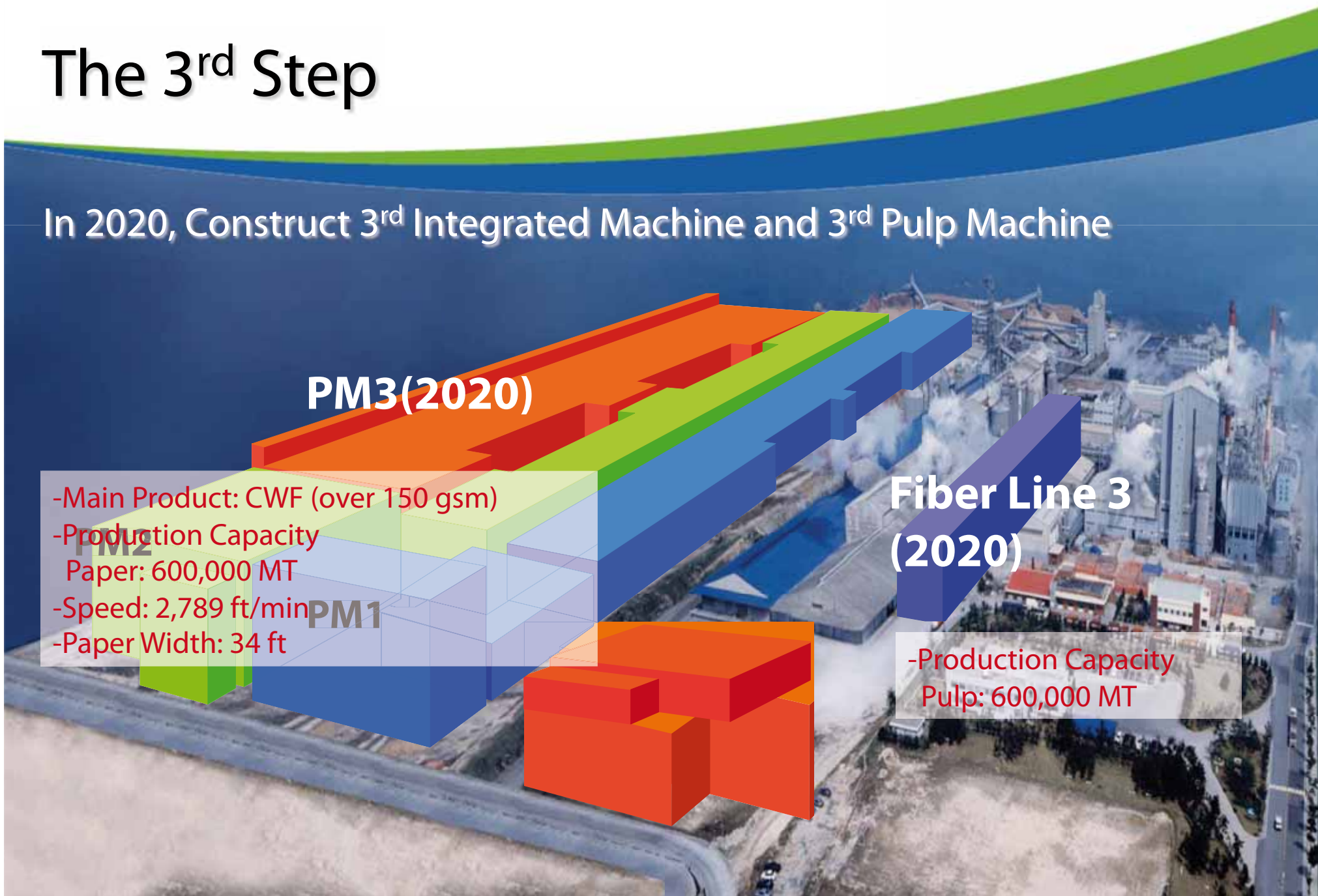
PM3(2020)

- Main Product: CWF (over 150 gsm)
- Production Capacity
Paper: 600,000 MT
- Speed: 2,789 ft/min
- Paper Width: 34 ft

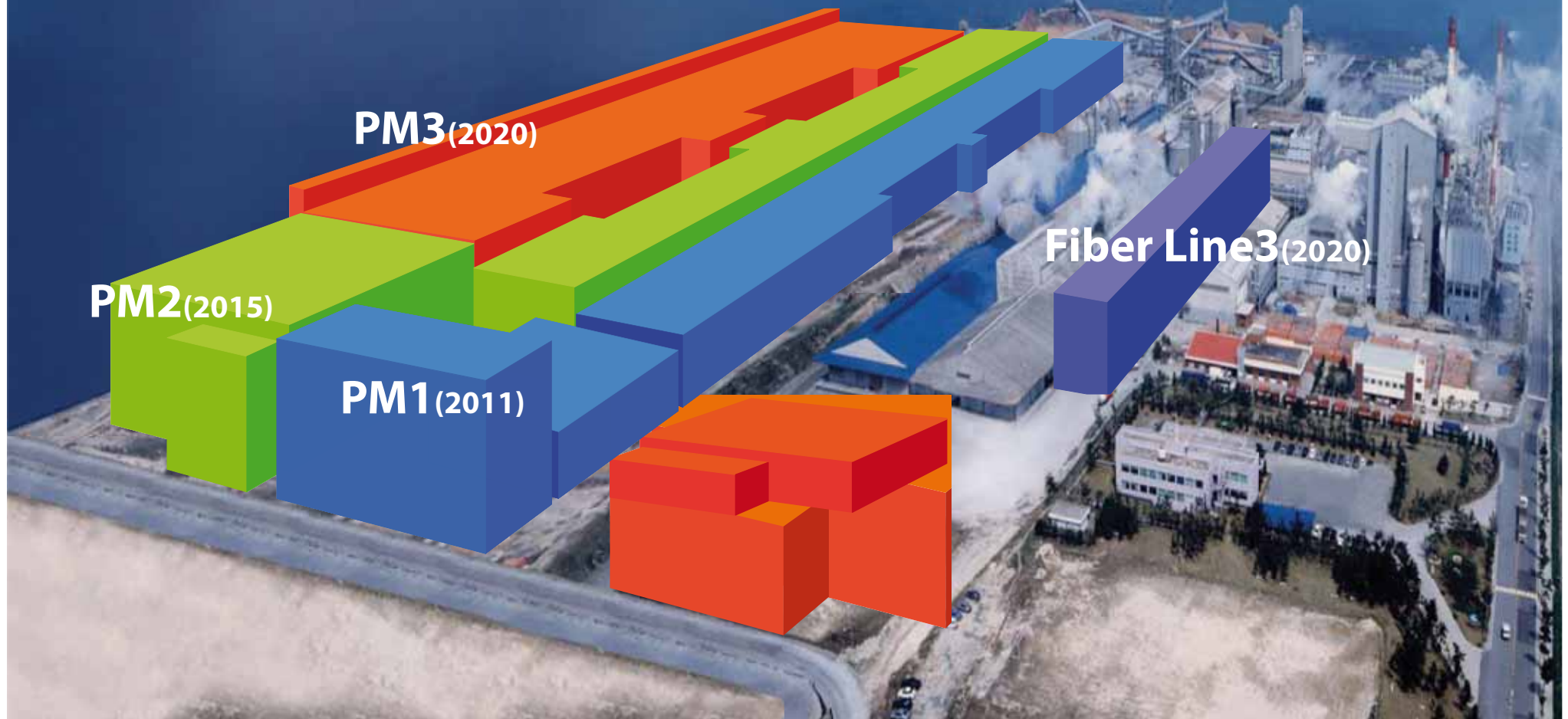
PM1

**Fiber Line 3
(2020)**

- Production Capacity
Pulp: 600,000 MT



2020 Vision of Moorim



2020 Vision of Moorim

1st Step

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(Coated: 315,000 MT/ Uncoated: 135,000MT)
- Speed: 4,265 ft/min
- Paper Width: 28.5 ft

PM3(2020)

PM2(2015)

PM1(2011)

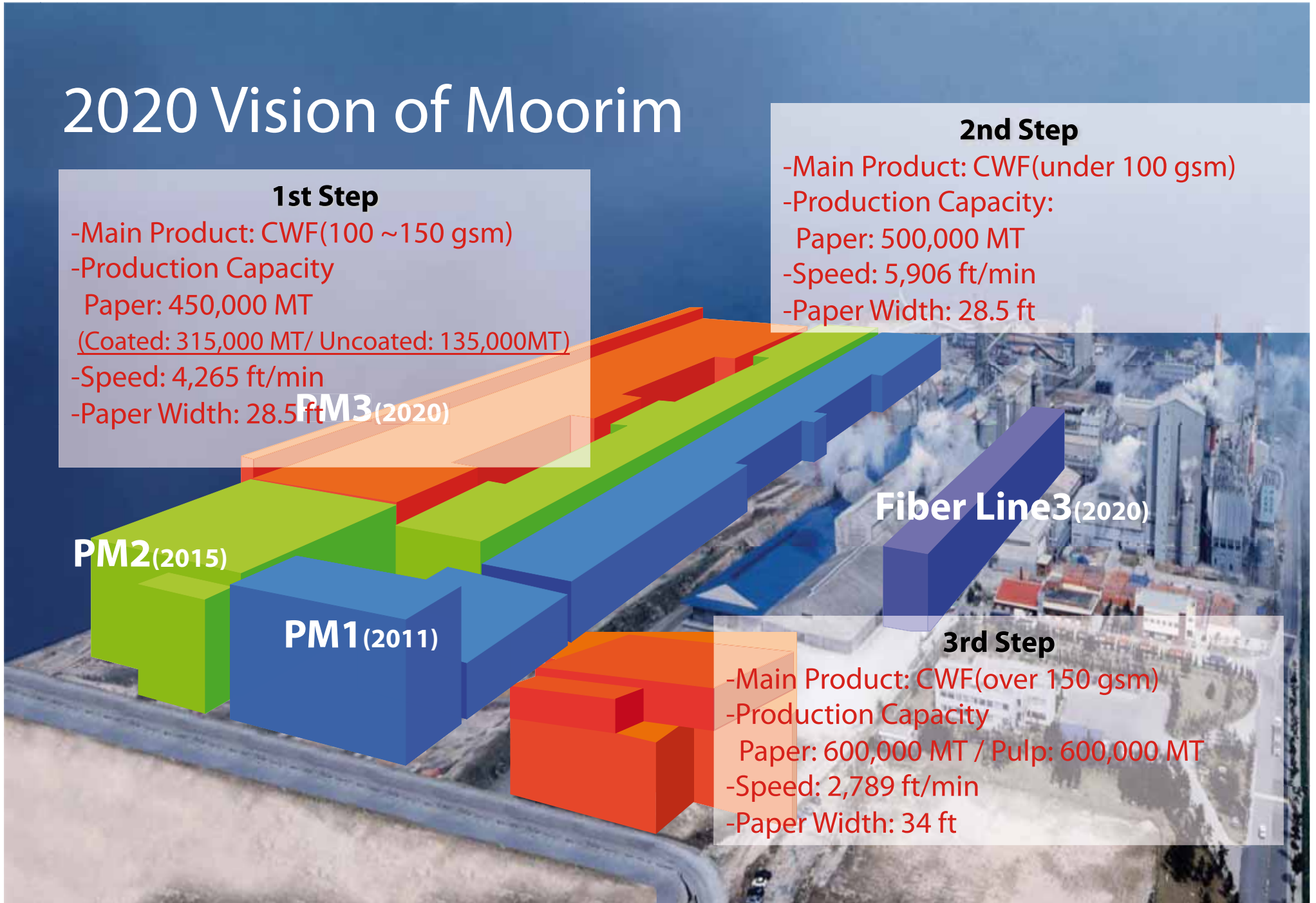
2nd Step

- Main Product: CWF(under 100 gsm)
- Production Capacity:
Paper: 500,000 MT
- Speed: 5,906 ft/min
- Paper Width: 28.5 ft

Fiber Line3(2020)

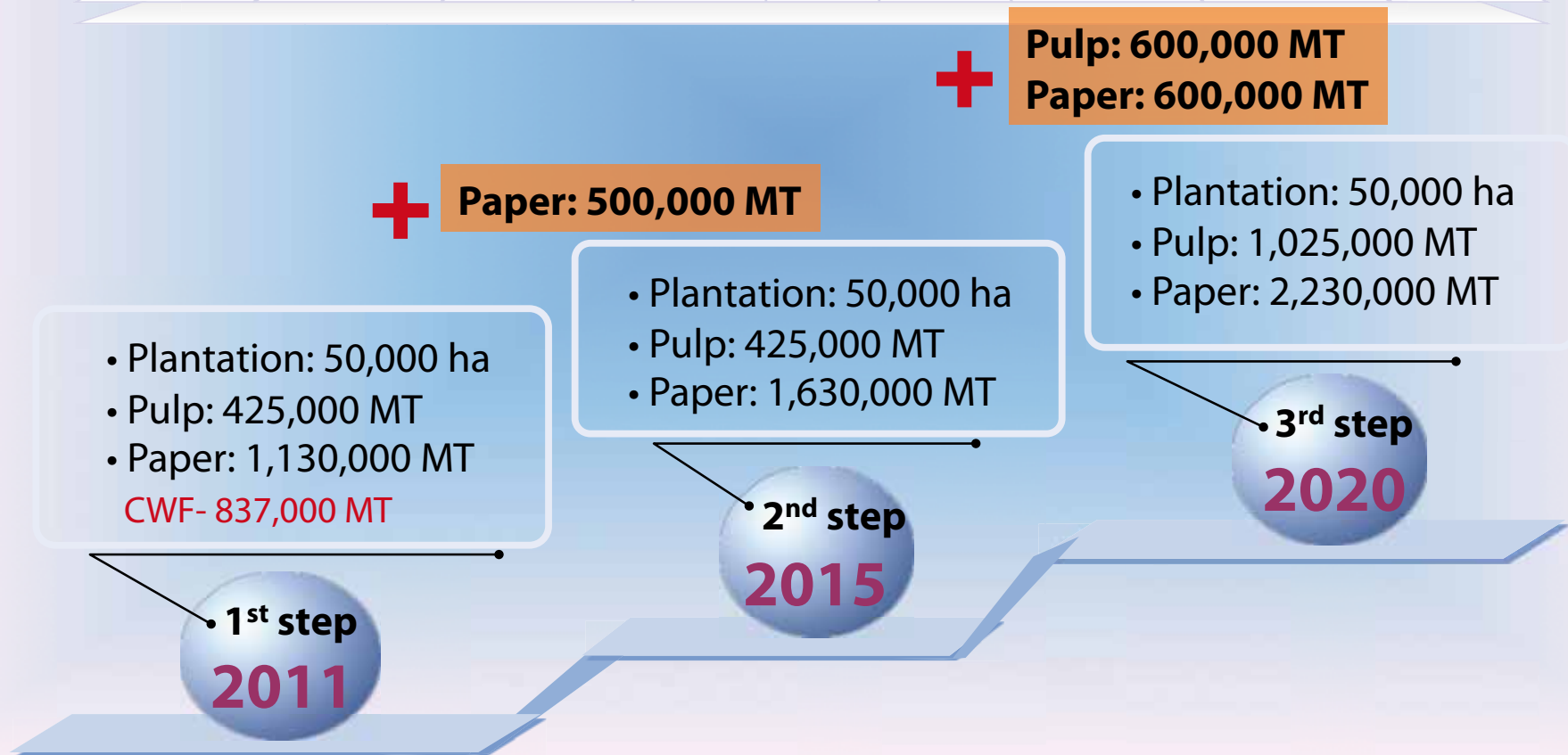
3rd Step

- Main Product: CWF(over 150 gsm)
- Production Capacity
Paper: 600,000 MT / Pulp: 600,000 MT
- Speed: 2,789 ft/min
- Paper Width: 34 ft



Moorim 2020 Vision

Global Pulp & Paper Company



Moorim 2020 Vision

Global Pulp & Paper Company

Plantation

The gross Area

50,000 ha

Pulp

Total
production capacity

1,025,000 MT

Paper

Total
production capacity

2,230,000 MT

Let's now take a look at our current integrated mill construction site progress

[Stock preparation]

Tower Installation (LBKP, NBKP, BCTMP)



[Stock preparation]

Installing six refiners





[Paper making]

**Prop up the column bones
in Deaerator (4th ~8th)**

A photograph of a paper mill installation site. Large industrial machinery, including a massive horizontal roller, is visible. The area is filled with various components, pipes, and structural elements. A yellow sign with Chinese characters is hanging from a red railing in the foreground. The background shows the high ceiling and structural beams of the mill.

[Paper making]

Installing after dryer (8th ~9th)

[Coating]

Installing coater fan of the 3rd floor





[Coating]

Installing blade coater no.1~no.4

September 2010
Front view of Mill site



Can you see our dream?

With this dream,
Moorim will be able to take a big step towards
being a Global Pulp & Paper Company.

Dreams do come true,
as we share in the happiness and in what the future brings to you
and appreciate your ongoing support and interest with us.

Thank You

