

DRIVEN BY SUSTAINABLE DEVELOPMENT

FROM NATURE
TO GREEN INNOVATION



AT THE HEART OF NAVIGATOR'S BRAND PROMISE
IS A COMMITMENT TOWARDS SUSTAINABILITY.

WE BELIEVE
THAT OUR
RESPONSIBILITY
IS NOT JUST
FOR PAPER.



NAVIGATOR'S VALUE PROPOSITION
IS BASED ON FOUR CORE VALUES:

- ① RESPONSIBLE FOREST MANAGEMENT
- ② SUSTAINABLE PRODUCTION
- ③ ACTIVE BIODIVERSITY PROTECTION
- ④ ECO-FRIENDLY PAPER



EACH OF NAVIGATOR'S REFERENCES HAS ITS OWN SPECIFIC
CONCEPT BUT THEY SHARE A COMMON GOAL:

NAVIGATOR'S **FORWARD
THINKING** IS TRANSLATED
INTO R&D. IT DELIVERS
HIGHLY INNOVATIVE AND
SUSTAINABLE PRODUCTS
THAT **EXCEL IN QUALITY
AND CONSISTENCY.**

TO ACHIEVE THIS,
NAVIGATOR HAS
CREATED **A UNIQUE
INNOVATIVE APPROACH:**



GREEN INNOVATION UNIT
BY NAVIGATOR



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RESPONSIBLE FOREST MANAGEMENT

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OUR **RESPONSIBLE FOREST** MANAGEMENT KEEPS THE POTENTIAL TO FULFILL, NOW AND IN THE FUTURE, RELEVANT **ECOLOGICAL, ECONOMICAL AND SOCIAL** FUNCTIONS AT **LOCAL, NATIONAL AND GLOBAL** EVENTS.

ONE WAY TO **PREVENT GLOBAL WARMING** IS THROUGH **RESPONSIBLE FOREST MANAGEMENT** AND BOTH **AFFORESTATION** AND **REFORESTATION** THAT ACTIVELY CONTRIBUTE TO THE **REDUCTION OF CO₂ EMISSIONS**.



NAVIGATOR'S RESPONSIBLE FOREST MANAGEMENT

OUR FOREST MANAGEMENT MODEL IS CERTIFIED UNDER FSC®
AND PEFC, **GUARANTEEING A RESPONSIBLE ORIGIN
OF OUR RAW MATERIAL.**

ALL OF GRUPO PORTUCEL SOPORCEL'S MILLS
ARE CERTIFIED ACCORDING TO **ECOLABEL** (EUROPEAN ECOLABEL),
FSC-CoC AND **PEFC-CoC*** STANDARDS.

* Chain of Custody



> 62%

GRUPO PORTUCEL SOPORCEL'S MANAGED FORESTS
REPRESENT MORE THAN 62% OF THE PORTUGUESE
FSC CERTIFIED FOREST. (OCTOBER 2011)

> 400 000

THE PORTUGUESE FOREST IS DIVIDED AMONGST
MORE THAN 400 000 FOREST OWNERS.

1.6 million

PORTUGUESE TOTAL FOREST AREA HAS INCREASED
77% (1.6 MILLION ACRES), BETWEEN 1902 AND 2006,
I.E. AN AREA GROWTH RATE HIGHER THAN 28 000
FOOTBALL FIELDS PER YEAR.





SUSTAINABLE PRODUCTION

- ① RESPONSIBLE FOREST MANAGEMENT
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**ENVIRONMENTAL & SUSTAINABILITY
ENGAGEMENT** IS A REAL CONCERN
FOR NAVIGATOR AND CAN ONLY BE
ATTAINED BY COMBINING THE INNOVATIVE
RESOURCES DEVELOPED AT ITS GIU-
-NAVIGATOR'S GREEN INNOVATION UNIT.



GIU IS **THE VERY HEART** OF NAVIGATOR'S
SECRET TO SUSTAINABLE PRODUCTION,
WITH A **HIGH INVESTMENT IN
ENVIRONMENTAL PROJECTS** IN ITS
INDUSTRIAL SITES.



GREEN INNOVATION UNIT
BY NAVIGATOR



STATE OF THE ART R&D

RAIZ (FOREST AND PAPER RESEARCH INSTITUTE) IS A PRIVATE NON-PROFIT INSTITUTE SET UP IN 1995 TO CONDUCT **APPLIED RESEARCH IN FOREST PRODUCTION AND PULP AND PAPER INDUSTRIAL TECHNOLOGY**. AT THE CORE OF RAIZ'S STRATEGY IS THE **IMPROVEMENT OF THE *EUCALYPTUS GLOBULUS*** THROUGH A **NON GENETIC MODIFICATION PROCESS**. THIS PROCESS RESULTS IN INCREASED **PRODUCTIVITY AND PAPER PRODUCTION POTENTIAL** AND **DEVELOPING FORESTRY SOLUTIONS ADAPTED TO EACH REGION**.

RAIZ



GREEN EFFICIENCY THROUGH THE BEST RAW MATERIAL



+34%

WHEN COMPARED WITH BIRCH, *EUCALYPTUS GLOBULUS* SPECIES PROVIDE **34% MORE PULP** AND, THEREFORE, MORE PAPER FOR THE SAME AMOUNT OF WOOD.

8%

EUCALYPTUS OCCUPIES 21% OF THE TOTAL FOREST AREA, I.E. **8% OF MAINLAND PORTUGAL**.



Evergreen

NAVIGATOR USES RENEWABLE **NATURAL RESOURCES**: *EUCALYPTUS GLOBULUS* EVERGREEN FORESTS.

ELEMENTAL CHLORINE FREE

ALL PULP PRODUCED AND INTEGRATED INTO PAPER BY GRUPO PORTUCEL SOPORCEL IS **ECF – ELEMENTAL CHLORINE FREE**.

FEWER CHEMICALS

EUCALYPTUS GLOBULUS SPECIES' LOW LIGNIN CONTENT IMPLIES **FEWER CHEMICALS** IN PULP MAKING.

② SUSTAINABLE PRODUCTION

ECO-FRIENDLY PRODUCTION CYCLE

NAVIGATOR HAS BEEN WORKING TO EFFECTIVELY REDUCE NATURAL RESOURCES CONSUMPTION IN THE LAST DECADE.

-94%

1 REAM OF PAPER NEEDS 94% LESS WATER
IN PRODUCTION THAN 1 COTTON T-SHIRT.

FROM 2000 TO 2010

-55%

CONSUMPTION OF FOSSIL FUEL.

-17%

SHARE OF ROAD TRANSPORT.
SEA TRANSPORT REPRESENTED 46% OF PAPER
TRANSPORTATION IN 2010.

-46%

IN TOTAL FOSSIL CO₂ EMISSIONS FROM GPS MILLS
PER TONNE OF PRODUCT (PULP + PAPER).



② SUSTAINABLE PRODUCTION

49%

REDUCTION IN WATER CONSUMPTION PER TON OF PRODUCT – PULP + PAPER (2000–2010).

44%

REDUCTION OF MILL'S PROCESS WASTE TO LANDFILL THROUGH IMPROVED WASTE MANAGEMENT (2000–2010).

1.5 million

THE AMOUNT OF **CARBON DIOXIDE** FIXED BY FORESTS MANAGED BY GPS IS EQUIVALENT TO THE CO₂ EMISSIONS GENERATED BY **1.5 MILLION CARS** DRIVING AROUND THE GLOBE (2010).

20%

IN 2010, GPS MILLS GENERATED 20% **ENERGY SURPLUS**.



EFFECTIVE WASTE MANAGEMENT

DECREASE OF ATMOSPHERIC AND LIQUID EFFLUENT EMISSIONS; ALL MILLS OPERATE ACCORDING WITH EUROPEAN BEST AVAILABLE TECHNIQUES.

BY 2010, **80% OF THE RESIDUES** GENERATED BY PRODUCTION ACTIVITY **WERE VALUED AND REUSED** IN THE PRODUCTION PROCESS. THE **WASTE VALORIZATION** IS DONE BOTH THROUGH THE INCORPORATION OF RESIDUES SUCH AS **ORGANIC MATTER** IN THE COMPANY'S OWN FORESTS AND THE **PRODUCTION OF GREEN ENERGY**.



② SUSTAINABLE PRODUCTION

ALTERNATIVE GREEN ENERGY COMING FROM BIOMASS

GPS IS THE BIGGEST PORTUGUESE PRODUCER OF ELECTRICITY FROM BIOMASS.



65%

OF THE **TOTAL ENERGY** PRODUCED BY GPS IN 2010
WAS OBTAINED FROM **RENEWABLE RESOURCES**.

51%

THE GROUP WAS RESPONSIBLE FOR MORE
THAN HALF OF THE TOTAL BIOMASS ENERGY
PRODUCED IN PORTUGAL (2010).

120%

ENERGY SELF SUFFICIENCY (2010)*.

* By including all co-generation plants in its mills.



CO₂

BIOMASS IS “**CARBON NEUTRAL**” BECAUSE IT ABSORBS AND GENERATES CARBON FROM AND TO THE ATMOSPHERE.

⊖ FUEL
⊖ BIOMASS
⊖ WASTE

FUEL = BIOMASS ENERGY = WASTE MATERIALS FROM LOGS AND PULPING PROCESS: BARK AND OTHER FOREST RESIDUES THAT ARE NOT USED FOR PULP PRODUCTION.

NAVIGATOR MILL CERTIFICATIONS EMBODY OUR SUSTAINABLE DEDICATION

OUR MILLS COMPLY WITH:

ISO 14001: ENVIRONMENT.

OHSAS 18001: HEALTH AND SAFETY.

ISO 9001: QUALITY.

CHAIN OF CUSTODY (FSC AND PEFC)

GPS IS A MEMBER OF **"PAPER PROFILE"**

(ENVIRONMENTAL DECLARATION OF PAPER PRODUCTS' CHARACTERISTICS, ISSUED BY A GROUP OF LEADING EUROPEAN COMPANIES ON A **VOLUNTARY BASIS**).





ACTIVE BIODIVERSITY PROTECTION

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HERDADE DE ESPIRRA / VIVEIROS ALIANÇA IS NAVIGATOR'S FOREST NURSERY WHERE *EUCALYPTUS GLOBULUS* PLANTS ARE GROWN FOR PAPER (MAIN CROP) BUT WHERE WE CAN ALSO FIND VINEYARDS, CORK OAKS, STONE PINE, MARITIME PINE AND ORNAMENTAL PLANTS.

>12 million

PLANTS OF VARIOUS SPECIES ARE EXPECTED TO BE PRODUCED IN 2012 AT THE GROUP'S FOREST NURSERIES.



③ ACTIVE BIODIVERSITY PROTECTION



**BONELLI'S
EAGLE**
AQUILA
FASCIATA



Photo by Joaquim P. Ferreira

GPS INTEGRATES BIODIVERSITY CONSERVATION IN ITS FOREST MANAGEMENT MODEL.

IDENTIFICATION OF **CONSERVATION ZONES** PROTECTING
VALUABLE HABITATS AND SPECIES.

COOPERATION IN PROJECT “**LIFE NATURE**” FOR THE
CONSERVATION OF **BONELLI'S EAGLE IN THE SOUTH
OF PORTUGAL** AND IN THE PAST, IN A PROJECT FOR
THE **CONSERVATION OF THE BUSTARD**.

CREATION OF **PROTECTIVE BUFFER ZONES** AROUND
WATERCOURSES.

PRESERVATION AND ENHANCEMENT OF WILDLIFE
CORRIDORS.

PROMOTION OF **STRUCTURAL DIVERSITY** BY CREATING
A MOSAIC AT THE LANDSCAPE LEVEL.

GPS HAS ALSO BEEN INVOLVED IN SEVERAL NATIONAL AND
INTERNATIONAL PROJECTS TO PROMOTE THE **PRESERVATION
OF BIODIVERSITY**.

BUSTARD



Photo by Paulo Oliveira



NAVIGATOR'S INTERNATIONAL COMMITMENTS



World Business Council for
Sustainable Development



FSC-COC MILL CERTIFICATIONS AUDITED BY NEPCON /RAINFORST ALLIANCE - THE WORLD'S LEADING FOREST STEWARDSHIP COUNCIL (FSC) CERTIFIED.

UN/INTERNATIONAL ORGANISATION FOR NATURE CONSERVATION PROGRAMME "COUNTDOWN 2010".

RESPECTS THE PRINCIPLES OF THE EUROPEAN UNION INITIATIVE "BUSINESS & BIODIVERSITY".

MEMBER OF THE **WBCSD** (WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT) AND FOUNDING MEMBER OF THE PORTUGUESE BRANCH (**PORTUGAL**) AND OF THE PORTUGUESE ASSOCIATION.

NAVIGATOR CELEBRATED THE **INTERNATIONAL YEAR OF FORESTS 2011**. PROUD OF BEING PART OF THE INDUSTRY THAT IS THE LARGEST TREE PLANTER IN PORTUGAL AND FOR CONTRIBUTING TOWARDS THE SUSTAINABILITY OF THE PORTUGUESE FOREST.



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ECO-FRIENDLY PAPER

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④ ECO-FRIENDLY PAPER

NAVIGATOR OFFERS **PREMIUM OFFICE PAPER PRODUCTS** WITH SPECIFICALLY DESIGNED ENVIRONMENTAL FEATURES. THIS RANGE HAS BEEN SPECIALLY DEVELOPED **TO MEET AND EVEN EXCEED** THE NEEDS OF MODERN OFFICE USERS.

NAVIGATOR IS THE **LEADING BRAND IN THE OFFICE PAPER SECTOR**, PARTICULARLY IN REGARD TO PRODUCT QUALITY.



④ ECO-FRIENDLY PAPERS



	Available in the following sizes:	Reams/ Box	Art. Number	Brightness	Ctns/ Pallets	Thickness um	Caliper	Opacity	M-Wgt	Sheets/Ctn
20lb	8 1/2 x11"	10	NPL1120	99	40	105	4.13	93	10	5,000
	8 1/2 x11"	5	NPL11205R	99	70	105	4.13	93	10	2,500
	8 1/2 x11"	-	NPL11FP	99	70	105	4.13	93	10	2,500
	8 1/2 x11"	-	NPLFP3HP	99	70	105	4.13	93	10	2,500
	8 1/2 x14"	10	NPL1420	99	30	105	4.13	93	12.72	5,000
	11x17"	5	NPL1720	99	40	105	4.13	93	20	2,500
	A4"	5	NPLA4	99	40	105	4.13	93	10	5,000
24lb	8 1/2 x11"	10	NPL1124	99	40	115	4.53	96	12	5,000
	8 1/2 x11"	5	NPL11245R	99	70	115	4.53	96	12	2,500
	11x17"	5	NPL1724	99	40	115	4.53	96	24	2,500
	12x18"	5	NPL1824	99	20	115	4.53	96	27.7	2,500
28lb	8 1/2 x11"	5	NPL1128	99	70	120	4.72	97	14	2,500
	11x17"	5	NPL1728	99	40	120	4.72	97	28	2,500
	12x18"	5	NPL1828	99	20	120	4.72	97	32.3	2,500
32lb	8 1/2 x11"	4	NPL1132	99	70	128	5.04	98	16	2,000

NAVIGATOR PAPER IS A **TRULY ECOLOGICAL PRODUCT, BIODEGRADABLE, RECYCLABLE** AND MADE FROM **A NATURAL RENEWABLE RESOURCE** PLANTED SPECIFICALLY FOR THIS USE.

	Available in the following sizes:	Reams/ Box	Art. Number	Brightness	Ctns/ Pallets	Thickness um	Caliper	Opacity	M-Wgt	Sheets/Ctn
20lb	8 1/2 x11"	10	NMP1120	97	40	104	4.09	92	10	5,000
	8 1/2 x11"	5	NMP115R	97	70	104	4.09	92	10	2,500
	8 1/2 x14"	10	NMP1420	97	30	104	4.09	92	12.72	5,000
	11 x17"	5	NMP1720	97	40	104	4.09	92	20	2,500
	8 1/2 x11" 3HP	10	NMP113HP	97	40	104	4.09	92	10	5,000
24lb	8 1/2 x11"	10	NMP1124	99	40	115	4.53	96	12	5,000
	11 x17"	5	NMP1724	99	40	115	4.53	96	24	2,500
20lb	8 1/2 x11"	5	NR1120	95	40	105	4.13	92	10	5,000



GET READY
TO CHANGE.



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