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**Textile Technology Research Group**  
School of Design

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# Overview of Nonwovens and Potential for Pakistan

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# Textiles in Leeds



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- Founded in 1874, originally as the Yorkshire College of Science.
- Leeds is one of only two Russell group Universities specialising in textile science and engineering (with Manchester).
- Research themes
  - Fibre science and technology
  - Fibre and fabric functionalisation
  - Nonwoven fabric technology
  - Performance fabrics
  - Sustainable materials and processes
- Highest ranked technical textile research centre in the UK



# Spin-outs from research



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Virtually water-less  
washing

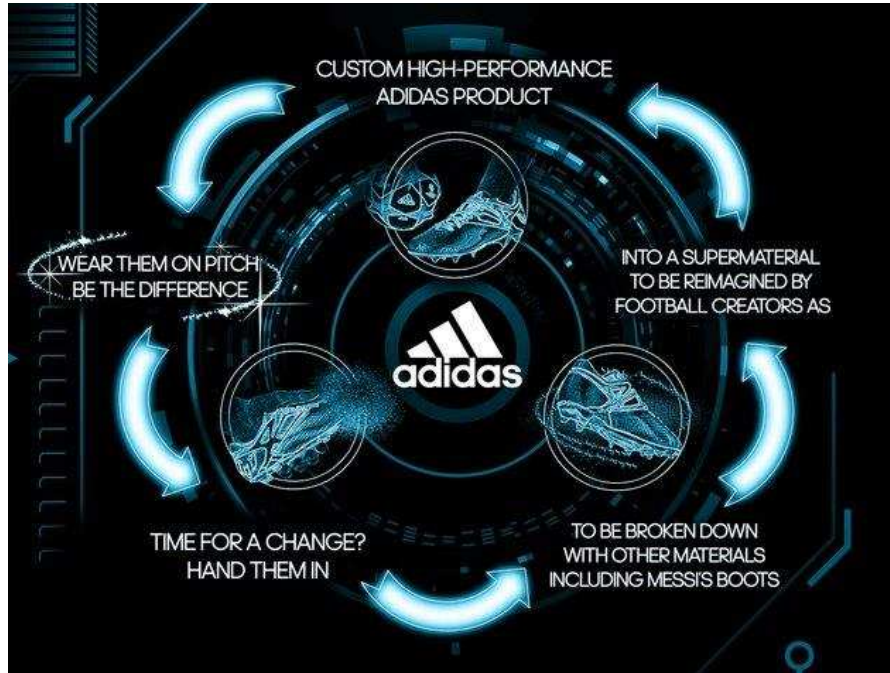


Nonwoven  
Innovation



Natural extracts  
for industrial use





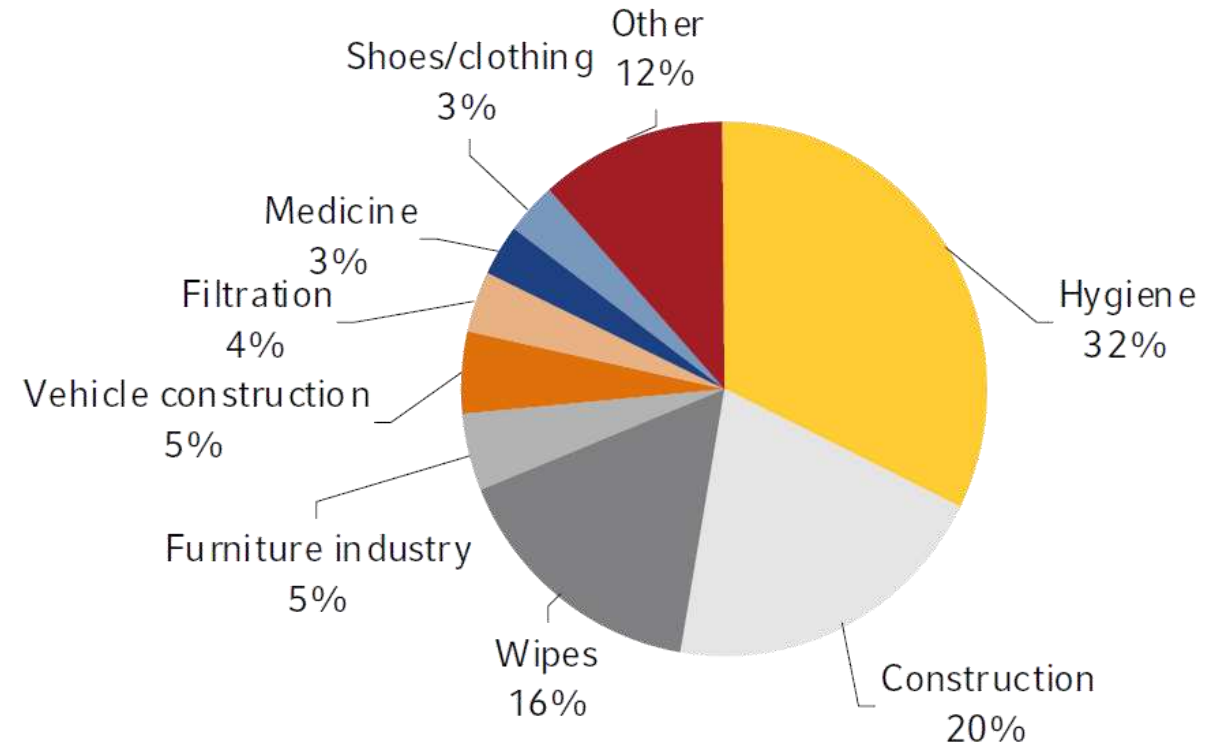
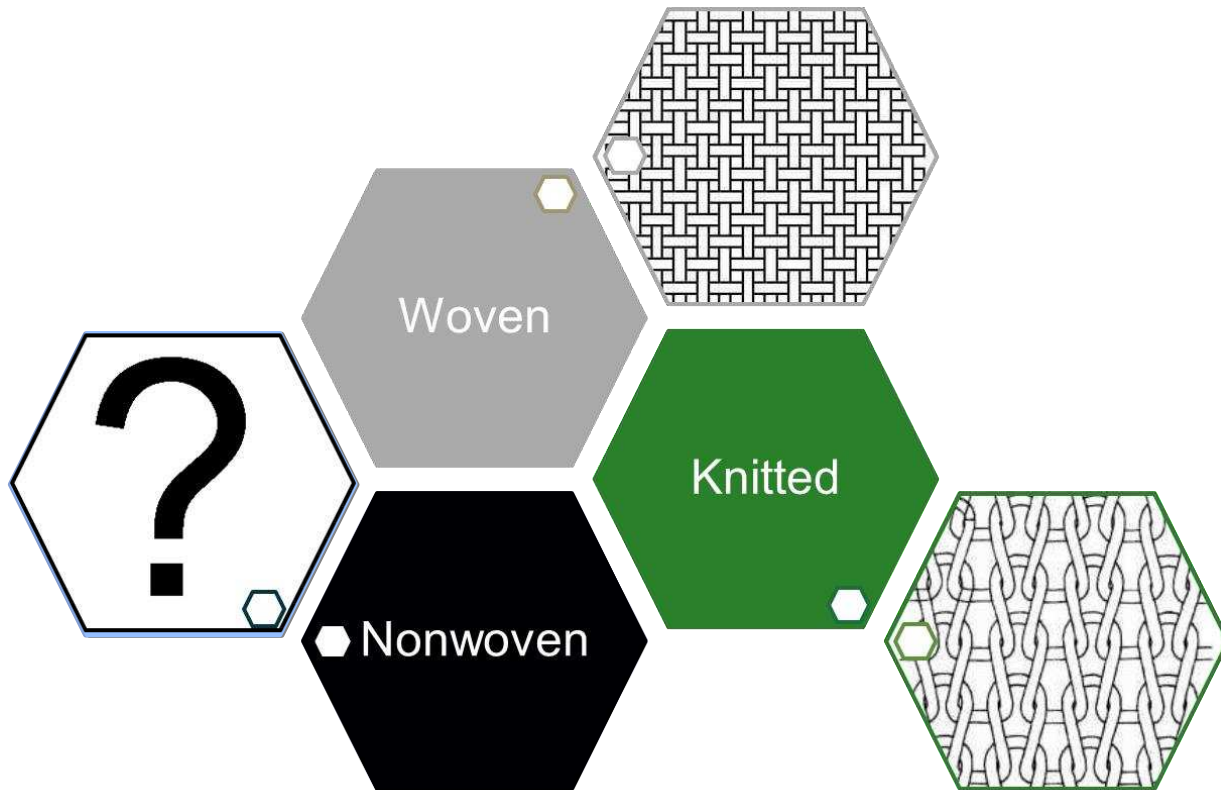
# FAREWELL RECYCLING, IT'S NOW TIME FOR INFINITY-CYCLING



# Nonwoven Structures and Applications



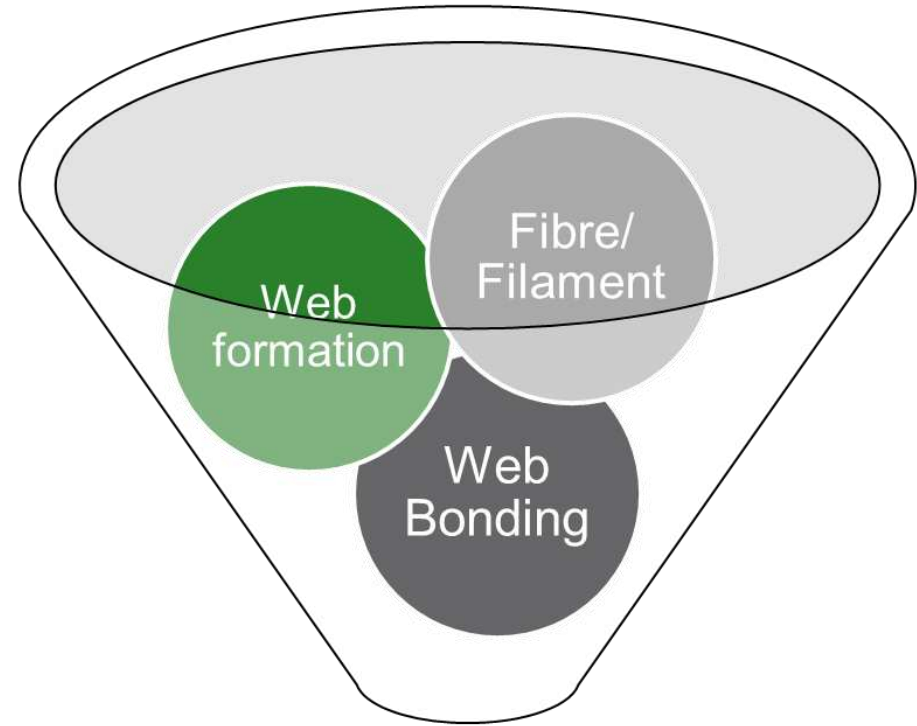
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# Nonwovens Technology



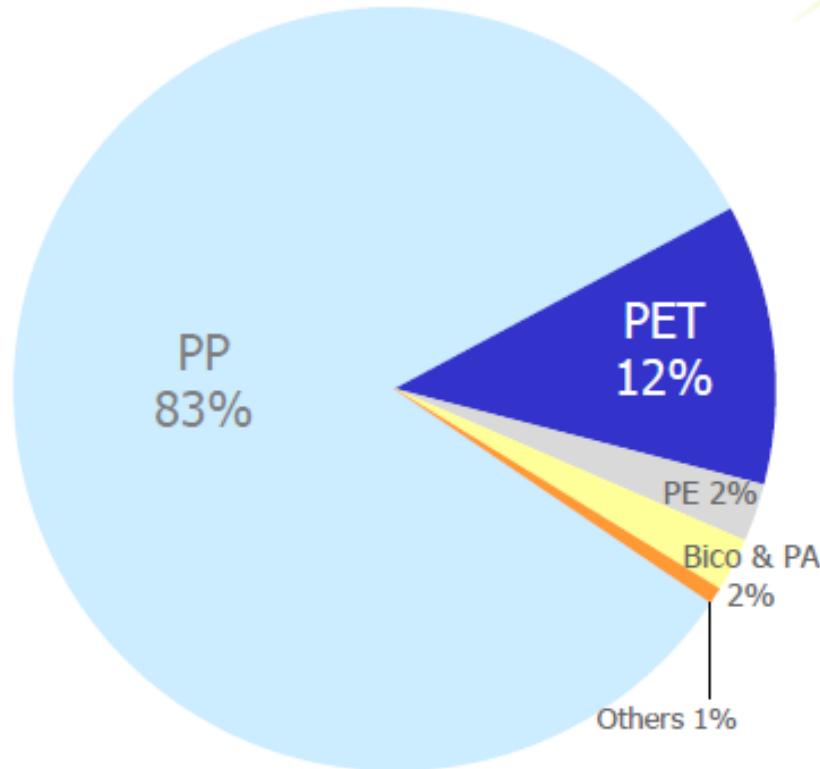
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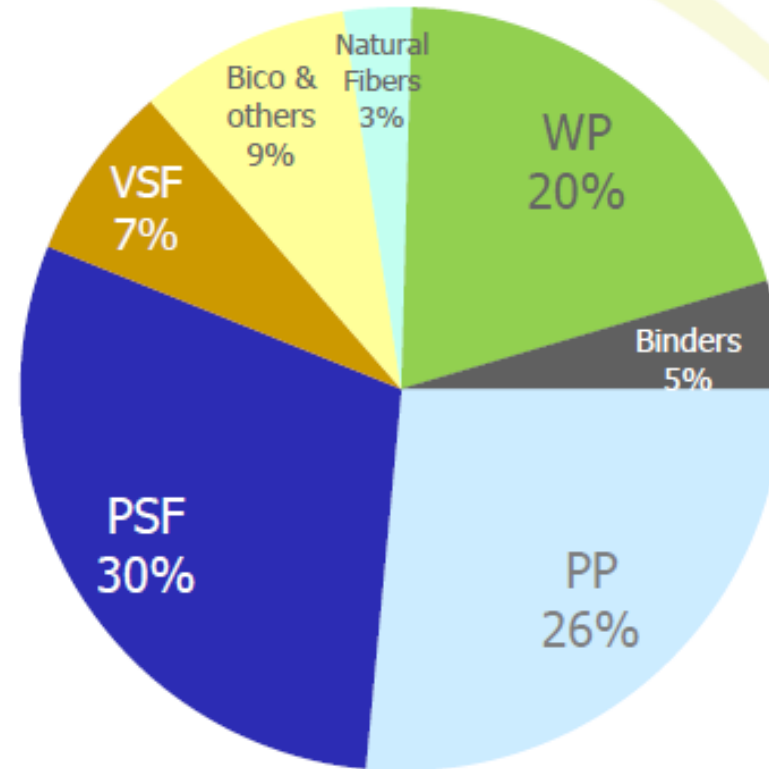
Nonwoven Fabric



### Polymer-to-web

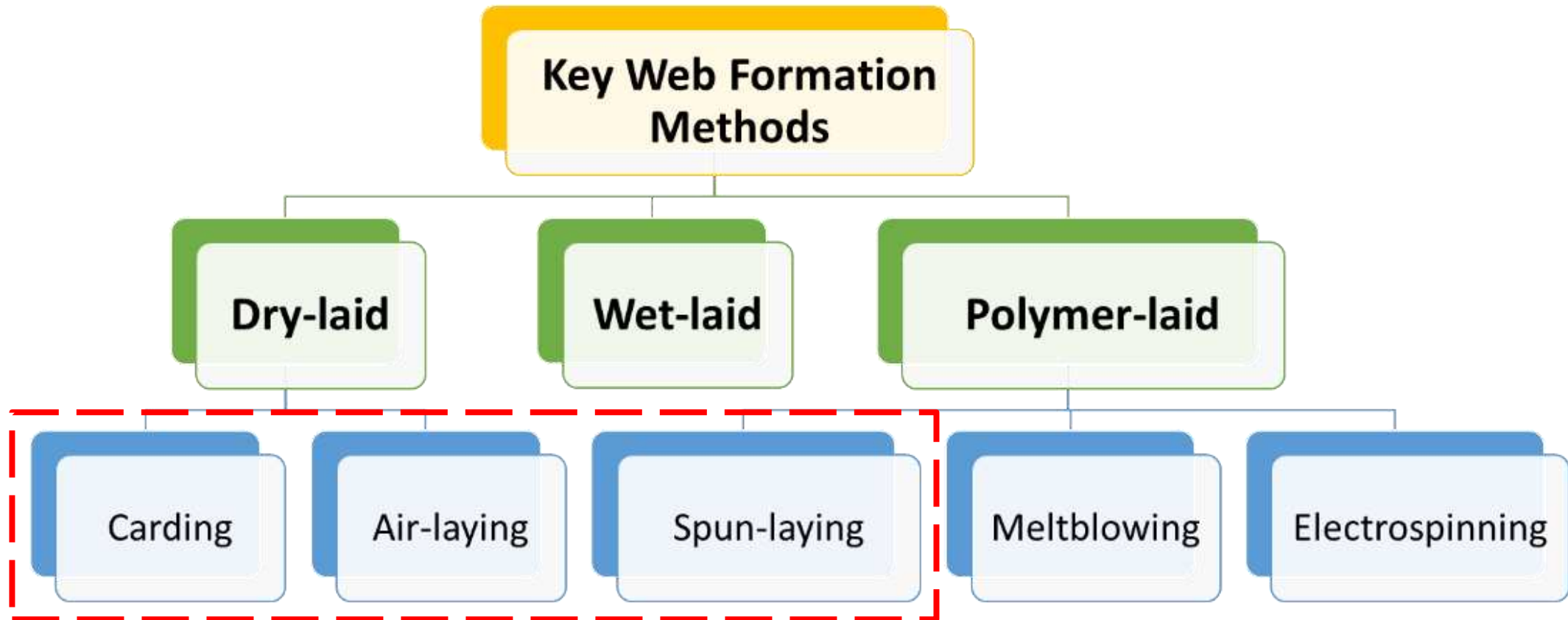


### Fiber-based



Source: ANFA, EDANA, INDA

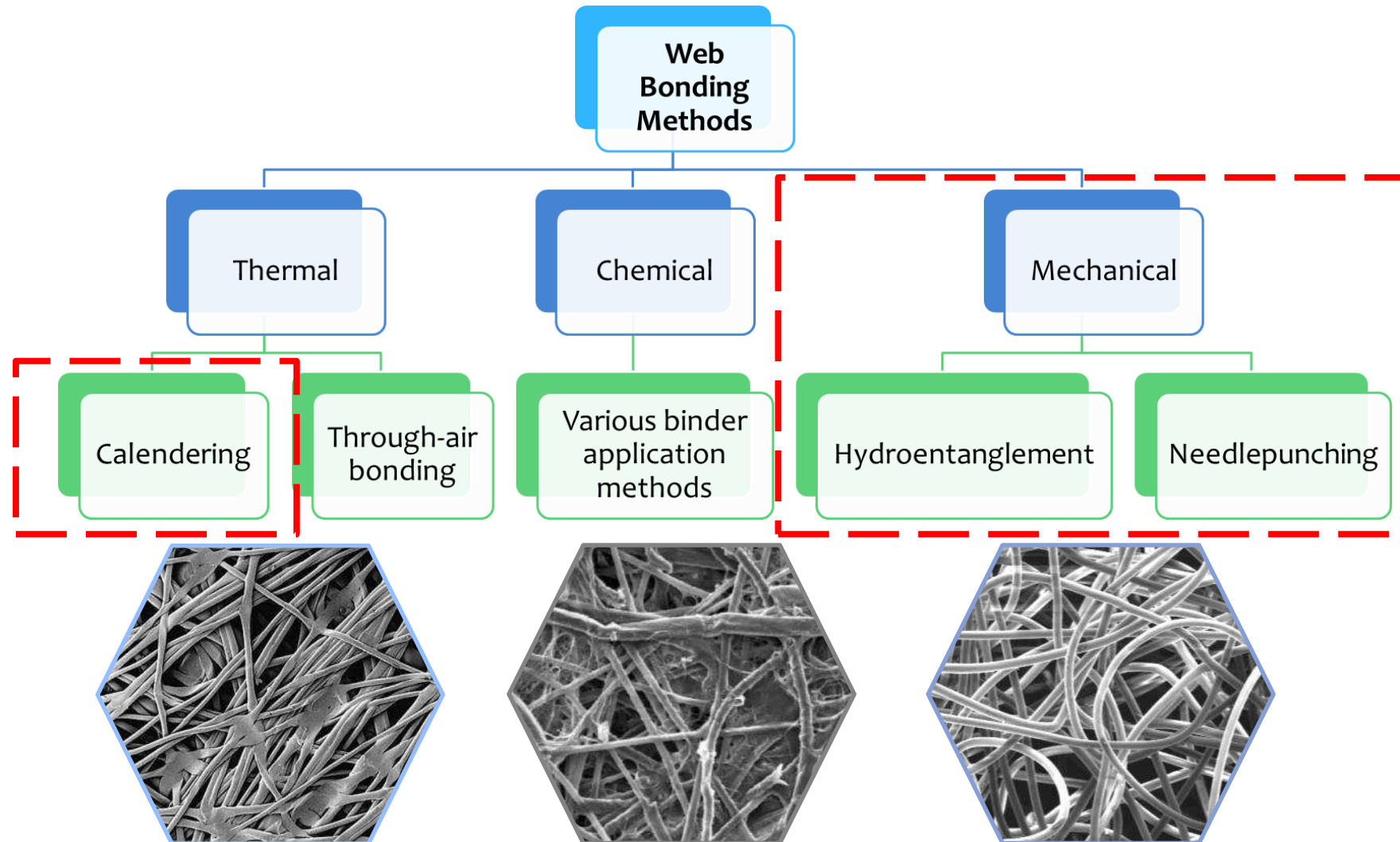




# Web Bonding Methods



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## EXPORT OF GOODS BY COMMODITY AND SERVICES BY TYPE

HS CODE - COMMODITY	MAY		JULY - MAY	
	2015	2014	2015-2016	2014-2015
	Thousand Rs.			

(A) Total Export Receipts (Scheduled Banks)	200,051,557	217,157,414	2,275,444,064	2,338,549,868
11-Textiles and Textile Articles	109,669,300	113,152,219	***,***,***	***,***,***
50-Silk	20,535	48,251	388,870	2,730,432
51-Wool, Fine or Coarse Animal Hair, Horsehair Yarn	100,343	148,064	1,228,222	2,051,473
52-Cotton	38,078,434	39,945,301	426,277,334	488,075,819
53-Other Vegetable Textile Fibres; Paper Yarn etc.	19,375	0	312,357	337,931
54-Man-Made Filaments	364,333	457,030	3,925,167	5,041,529
55-Man-Made Staple Fibers	2,862,584	3,055,064	32,735,522	39,171,606
56-Wadding, Felt and Nonwovens, Special Yarn, Twine	958,486	926,848	9,711,831	5,086,221
57-Carpets and other Textile Floor Coverings	955,998	1,249,494	11,711,052	12,074,829
58-Special Woven Fabrics, Tufted Textiles Fabrics, Lace	546,984	877,860	7,296,023	11,191,540
59-Impregnated, Coated, Covered or Lamented Tex. Fab.	326,562	416,840	4,484,837	5,040,663
60-Knitted or Crocheted Fabrics	427,185	516,092	4,072,607	4,237,005
61-Articles of Apparel & Clothing Accessories Knit/Cr	17,495,429	18,986,109	213,550,566	212,293,603
62-Articles of Apparel/Clothing Acces not Knited /Cro	17,447,259	15,325,591	188,626,831	171,867,530
63-Other Made-up Textile Articles; Sets, Worn Clothin	30,065,794	31,199,676	358,038,341	342,853,969

US\$ 90 Million

~ 1% of Textile Exports

## IMPORTS OF GOODS BY COMMODITY AND SERVICES BY TYPE

HS CODE - COMMODITY	MAY		JULY - MAY	
	2015	2014	2014-2015	2013-2014
	Thousand Rs.			
<b>(A) Total Imports Payments (Scheduled Banks)</b>	<b>344,577,039</b>	<b>356,398,830</b>	<b>3,823,537,230</b>	<b>3,958,349,545</b>
<b>11-Textiles and Textile Articles</b>	<b>22,363,120</b>	<b>18,133,183</b>	<b>227,043,661</b>	<b>222,553,960</b>
50-Silk	572,063	243,322	5,177,497	2,401,751
51-Wool, Fine or Coarse Animal Hair, Horsehair Yarn	49,300	80,681	1,099,575	940,047
52-Cotton	5,836,189	3,431,741	57,492,381	70,799,997
53-Other Vegetable Textile Fibres; Paper Yarn etc.	250,724	348,317	4,725,165	6,697,263
54-Man-Made Filaments	5,420,390	5,111,358	54,745,444	54,353,798
<b>55-Man-Made Staple Fibers</b>	<b>5,352,044</b>	<b>5,880,911</b>	<b>61,469,749</b>	<b>54,267,350</b>
56-Wadding, Felt and Nonwovens, Special Yarn, Twine	560,530	448,041	5,493,463	3,986,667
57-Carpets and other Textile Floor Coverings	90,110	60,538	815,978	673,063
58-Special Woven Fabrics, Tufted Textiles Fabrics, Lace	1,075,486	208,065	3,993,505	2,395,477
59-Impregnated, Coated, Covered or Lamented Tex. Fab.	512,761	546,131	5,640,500	5,030,142
60-Knitted or Crocheted Fabrics	519,603	209,302	3,182,463	2,725,682
61-Articles of Apparel & Clothing Accessories Knit/Cr	588,656	182,131	3,799,453	2,015,563
62-Articles of Apparel/Clothing Acces not Knited /Cro	179,471	337,824	2,518,605	2,355,950
63-Other Made-up Textile Articles; Sets, Worn Clothin	1,355,793	1,044,822	16,889,882	13,911,208

US\$ 50 Million

# Pakistan - Imports



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1	PCT	ITEM DESCRIPTION
2	5601.2200	3 Nonwoven coat shoulder chest pad. Net wt approx 310kgs.
3	5601.2200	DESC WADDING MATERIAL TYPEA SIZE 89GSM X 150CM X 18M IO. NOT SHOWN BRAND MYTREX 2...Receipt no059905REPORTThe sample is in the form of white thick soft sheet on
4	5601.2900	WOOL PADS CONSISTING OF A E FARCELA ADVANCED G.MOP 8 DOUBLE SIDE FLEXIBLE WHITE WOOL COMPOUNDING PAD PART NO AGMDSFWWEP24 QTY 25 PCS x 25 CTNS. ORIGIN USA B E FARCEL
5	5601.3000	DAFLOCK 3DX3MM. 15 KGSBAG.
6	5601.3000	FLOCK COLOUROFF WHITE GROSS WEIGHT 1140 KGS 2....Receipt no 060605ReportThe sample on test is found to be nylon flock. It is in the form of creamy color fibrous powder.
7	5602.1000	NEEDLELOOM FELT130GSM0.6MMBLACK
8	5602.1000	NEEDLELOOM FELT180GSM0.8MMBLACK
9	5602.9000	AS PER ERNON WOVEN FELT IN ROLL, NET WEIGHT 10400 KGS APPROX, ORIGIN,
10	5602.9000	AS PER ER 4 FELT MATERIAL IN ROLL . COLOR GREY. APAPROX NET WT 2717 KGS.
11	5602.9000	DESCRIPTION NON WOVEN FELT IN ROLLS.NET WEIGHT 7842 KGS
12	5602.9000	AS PER ER FELT COLOUR BLACK RED NET WEIGHT 2145 KGS APPROX.
13	5602.9000	AS PER ER DESCRIPTION. NONWOVEN FILTER CLOTH PE 5UM IN ROLL.SPECPE 5 UM. WIDTH 180CM ROLL LENGTH 100 METERS.QTY62 ROLLS.WEIGHT5036 KGS APPROX.
14	5602.9000	DESCRIPTION FELT MATERIAL FOR GLOVES IN ROLLS NT WT 4833KG CHECKED WEIGHT FOUND 4970 KGS
15	5602.9000	AS PER ER 3 NON WOVEN FELT IN ROLLS, NE WT. 1860 KGS APPROX ..
16	5602.9000	Non Woven Felt, net weight 10060 kg approx. I.O, not shown
17	5602.9000	DDESC FELT FOR MAKING FILTER BAG WEIGHING 500gm2 550gm2. NOMEX 500C 550 C FINISH TREATMENT HEAT SET SINGED CALANDER GLAZED WIDTH 2.20 METER TOTAL 2 ROLL NET WIEGHT 117
18	5602.9000	NON WOVEN PP FELT IN ROLLS OF ASSORTED COLORS WIDTH 44 NET WEIGHT 10012 KGS APPROX.
19	5602.9000	8 DASH BOARD COVER NONSLIP MATERIAL IN ASSORTED SIZES.WEIGHT550KGS APPROX
20	5602.9000	1. NON WOVEN PP FELT COLOUR BLACK IO TYPE AND BRAND ROCKET NET WEIGHT 9945 KGS APPROX. ...2..Receipt no 060346ReportThe sample is in the form of black color sheet on tes
21	5602.9000	DESCRIPTION PP NON WOVEN FELT IN ROLLS OF WHITE AND BLACK COLORS, SPC. WIDTH 44, LENGTH 50 YARDS, ORIGIN NOT SHOWN, TARE WEIGHT IS 400 KGS APPROX CHECK WEIGHT 100 FOUND 11110 KGS
22	5602.9000	THE CONSIGNMENT. DESCRIPTION .NON WOVEN FELT IN ROLLS OF VARIOUS COLORS, ORIGIN NOT SHOWN, CHECK WEIGHT 100 FOUND 8640 KGS VIDE KICT SLIP NO 923616 DATED 19122016 IMAGES ATTAC
23	5602.9000	DESCRIPTION PP NON WOVEN FABRIC FELT IN ROLLS VARIOUS COLORS SIZES SPEC. 180 GSM WIDTH 44 PACKED IN POLY BAGS ORIGIN NOT SHOWN NET WEIGHT APPROXIMATE 11040 KGS
24	5602.9000	POI YESTER NONWOVEN FELT IN BLACK COLOR ROLLS IMAGES ATTACHED 100.WEIGHTVIDE KICT S. NO. 92647126.12.2016 AND FOUND 10.610 KGS APPROX NET WEIGHT 10.010 REP SEALED SIGNE

PU or PVC coated polyester (Artificial leather), Fusible interlinings, Flocked Nonwoven, Polyester felts (could be of multiple use), Filter fabric, Shoe applications, Coat shoulder pad

# Pakistan – Potential Areas



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**Mattex** – NEEDLE PUNCHED GEOTEXTILE  
Made in Saudi Arabia      Geotextile Reinforcement

 Separation / Stabilization	 Filtration	 Drainage	 Protection
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## Mattex Geotextile New Shipment Arrived

March 18, 2017 | Posted in: News

**Mattex** Geotextile      **New Shipment Arrived**

Applications

INTERNATIONAL **THE NEWS** Home Latest National Sports World Business Entertainment Technology Health Oped Today's Paper

Tue March 28, 2017      TRENDING: CENSUS 2017   CPEC   PSL 2017   RADDUL FASAAD

Business

## 'Nonwoven fabric can stop canal water seepage'

LAHORE: Nonwoven fabric application in canal lining could save at least 30 percent of water, which is lost through seepage, causing water logging in fertile soils around canal, a textile expert said on Monday.

MA

advertisement

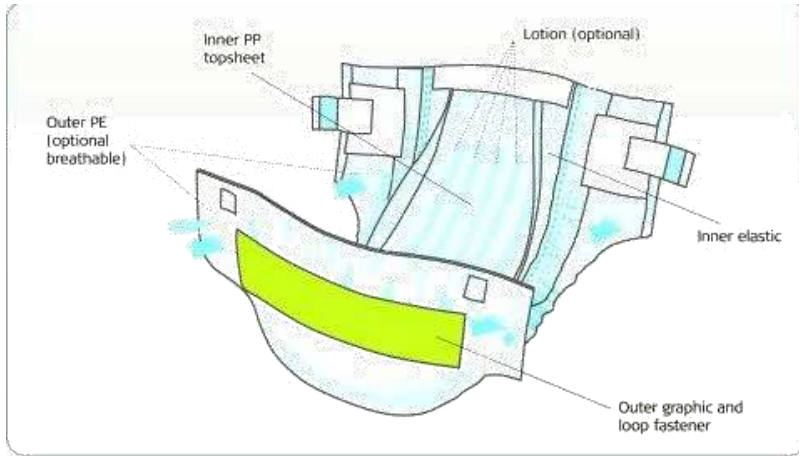
Topstory


Call ex-rulers to account, Nawaz asks

# Pakistan – Potential Areas



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WATER-BORNE DISEASES SUCH AS DIARRHOEA  CAUSE 2 MILLION DEATHS EVERY YEAR, AND THIS DISEASE ALONE AMOUNTS TO AN ESTIMATED 4.1% OF THE TOTAL GLOBAL BURDEN OF DISEASE.



## HEALTHCARE ASSOCIATED INFECTIONS

HAIs are infections acquired by patients in a hospital or as a result of healthcare intervention.

EVERY YEAR IN EUROPE

AFFECTS MORE THAN 4 MILLION PATIENTS



ARE DIRECTLY RESPONSIBLE FOR 37,000 DEATHS

CONTRIBUTE TO A FURTHER 100,000 DEATHS



COST HOSPITALS OVER €5.4 BILLION

ACCOUNT FOR A FINANCIAL LOSS OF €7 BILLION IN DIRECT COSTS ONLY

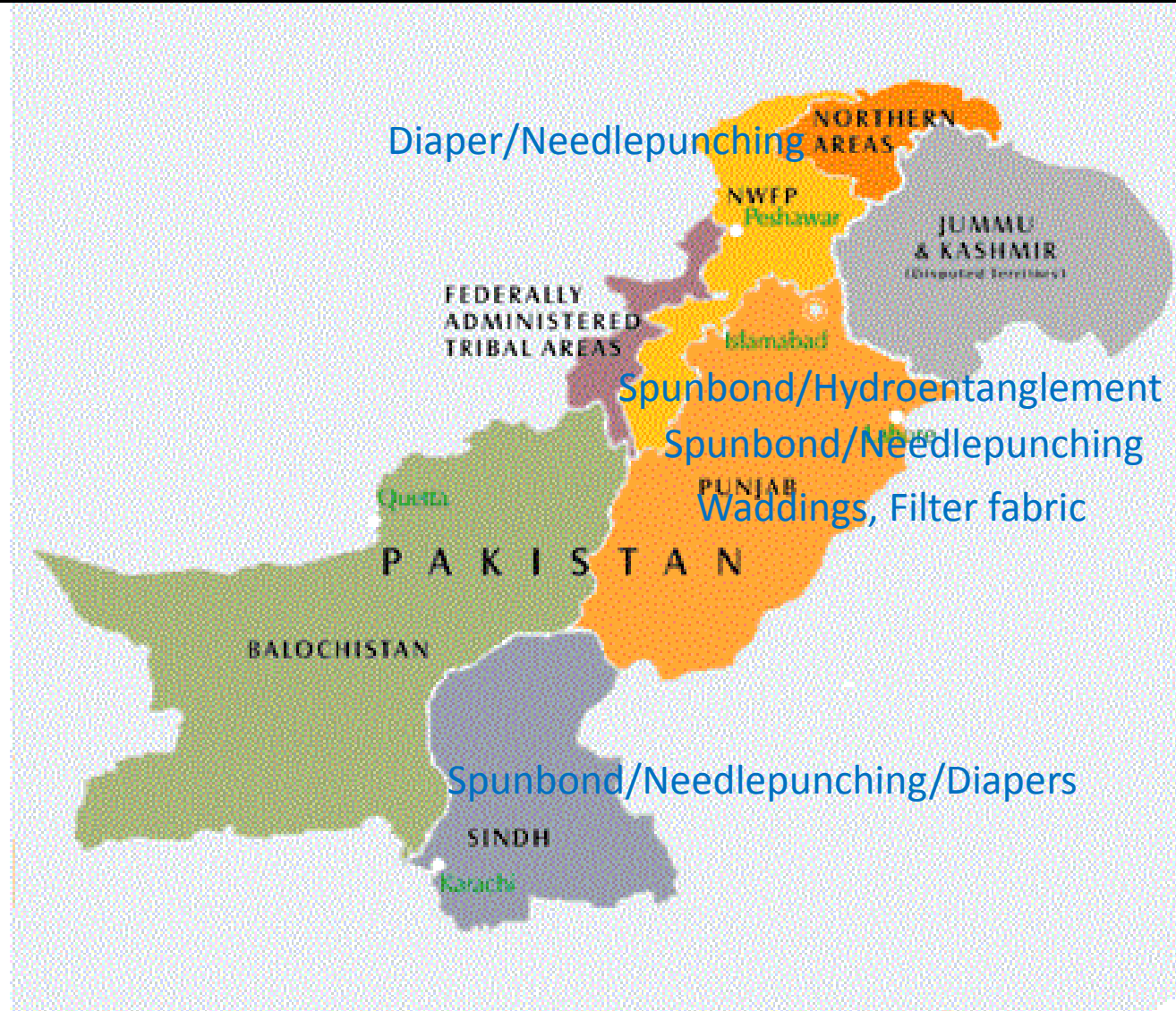
CAUSE 16 MILLION EXTRA DAYS IN HOSPITAL



# Pakistan – Nonwovens Industry



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Thank you

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