



Technology Assistance

on the framework of Program for



Tannery Industry

Egyptian Tannery relocation



Robbiki
Tannery
Park

CAIRO

05th October 2016



ITALIAN COOPERATION PROJECT



Component	Months	0-2	2-4	4-6	6-8	8-10	10-12
1	IDA-CID ONE STOP SHOP	PARK MANAGEMENT ROLES & GUIDE LINES		follow-up a maintenance Develop phase 2 and 3			
	TANNERIES CID	List of equipments, Flow map production for Relocation					
2	CETP CID	MANAGEMENT of WASTES				SAMPLING and MONITORING	
3	LTTC	LABORATORY SERVICES: QUALITY CONTROL, CERTIFICATION (phase2) and OUTSOURCING WORKSHOP MAINTENANCE				RAW HIDE PROJECT Hides; Beamhouse	
4		EDUCATION AND TRAINING PROGRAM					

1) Beamhouse
Liming
Fleshing
Delimiting
Pikeling

2) Tanning

3) Samming

4) Splitting

5) Shaving

7) Setting
Out

8) Drying

9) Milling

6) Retanning
and Dying

10) Staking
Buffing

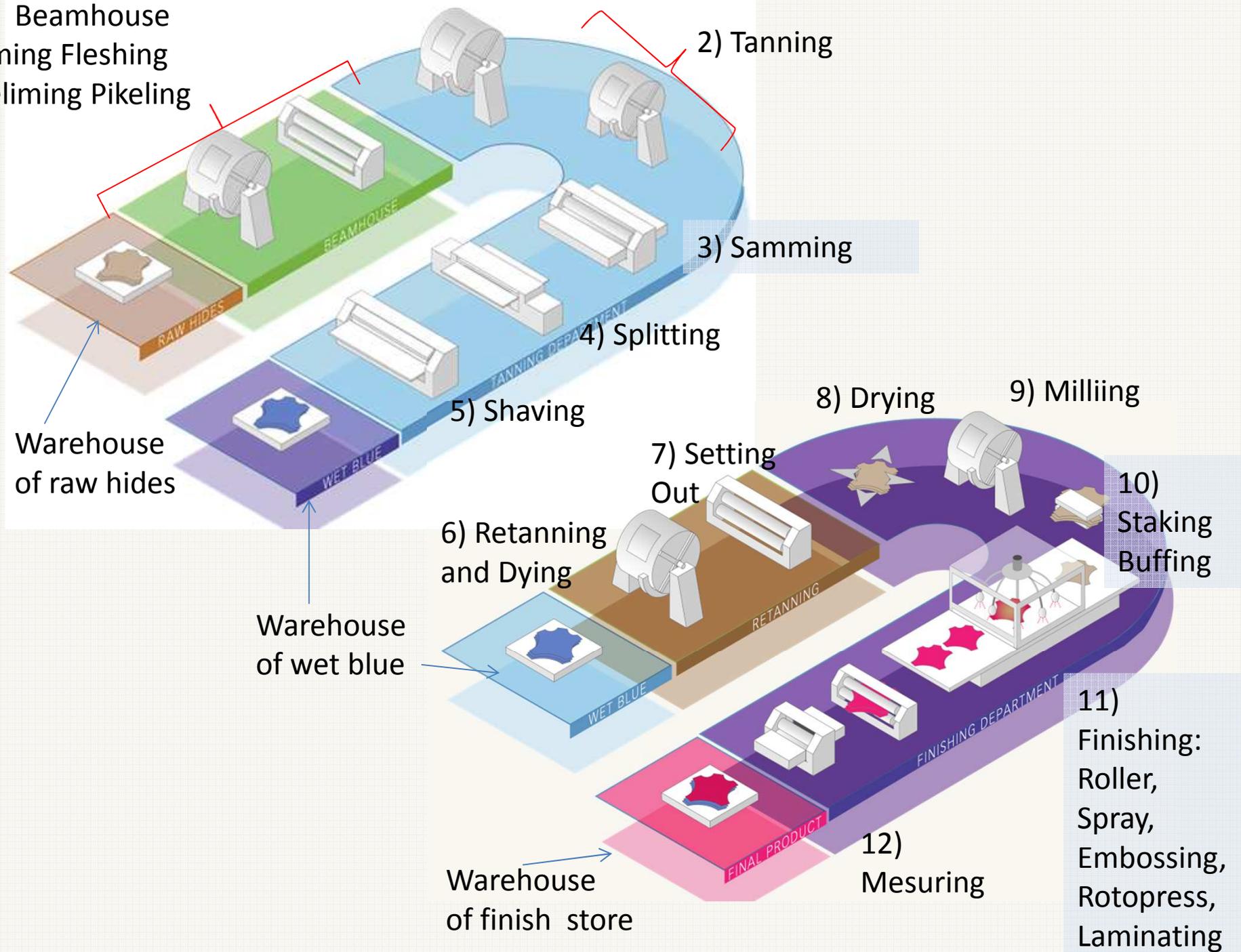
Warehouse
of wet blue

11) Finishing:
Roller,
Spray,
Embossing,
Rotopress,
Laminating

Warehouse
of finish store

12) Mesuring

Warehouse
of raw hides



CID TASK

RELOCATION... SUPPORT

Robbiki Leather City



ROLES:

- Water, Energy,
- Waste
- Risk assessment

SERVICE

- Tanks recleaning
- Centralize Purchase
- Centralize delivery
- Network

GUIDELINE

- Instructions handbook
- Training on safety
- SDS for chemicals

CID TASK

SOCIAL RESPONSIBILITY



- AVAILABLE
- SUITABLE
- SUSTAINABLE



**EDUCATION ON
BUSINESS
PLANNING**



CE

RISK ASSESSEMENT:

- Prevention
- Safety
- Guard Control

EN	Standard title
UNI EN 972	Reciprocating roller machines
UNI EN 13112	Bandknife shearing machines
UNI EN 1035	Moving platen machines
UNI EN 13113	Roller coating machines
UNI EN 13114	Rotating process vessels

CID TASK

CHROME GUIDELINE...

Cr

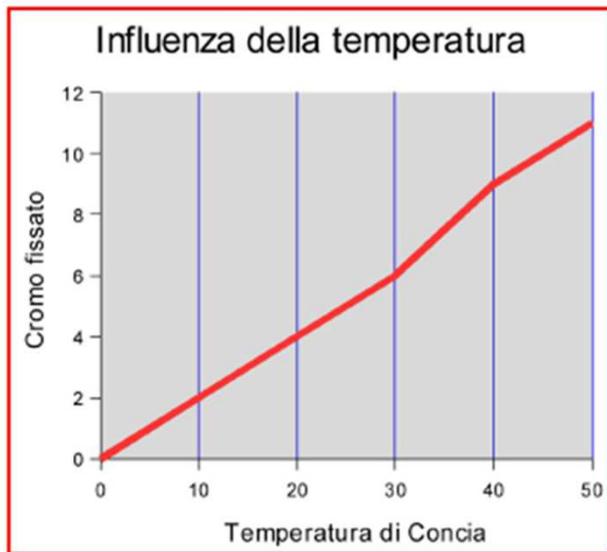


Tannery Industry

Guidelines for a more sustainable BEAMHOUSE & TANNING PROCESSES

➤ **IN TANNERY** improve Cr fixation:

- Offered Cr (in Cr₂O₃)
- Length of the bath
- Final temperature of tanning
- Duration of tanning
- pH end tanning
- Masking



Summary

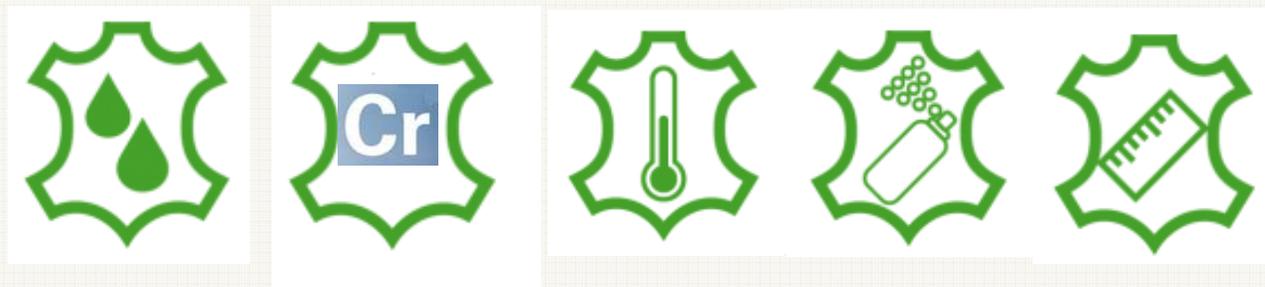
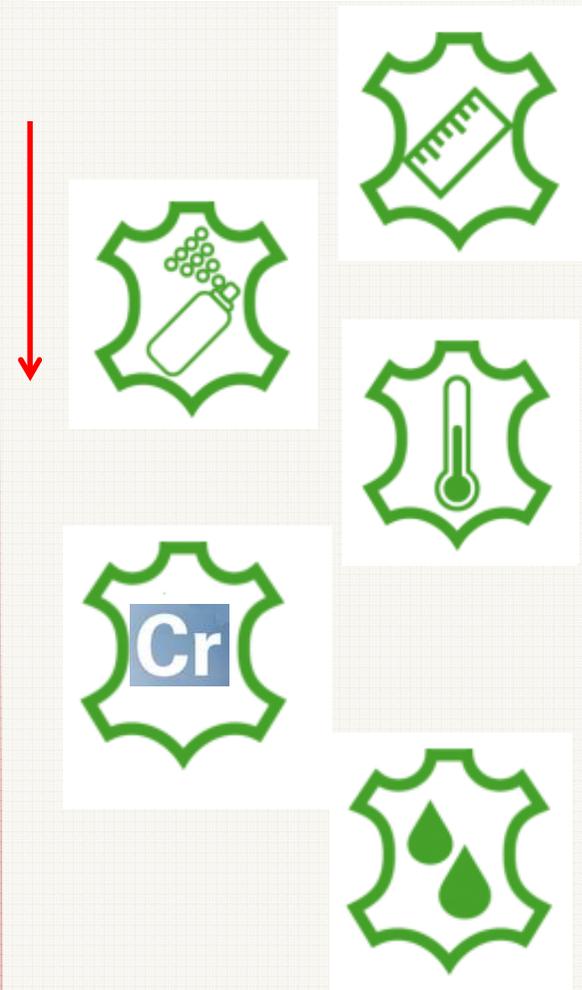
1. GUIDELINES FOR THE CHLORIDE REDUCTION in Tannery wastewater.....	4
1.1. CHLORIDE from CONSERVATION of RAW HIDES.....	4
1.1.1. Skins whisking.....	4
1.1.2. Using fresh raw hides.....	4
1.2. CHLORIDE REDUCTION IN PICKEL.....	5
2. GUIDELINES FOR THE SULPHATES REDUCTION in Tannery wastewater.....	6
2.1. REDUCTION OF SULPHATES ORIGINATED FROM OXIDATION OF SULPHITE.....	6
2.2. REDUCTION OF SULPHATES IN DELIMING.....	7
2.3. REDUCTION OF SULPHATES IN PICKEL.....	7
2.4. REDUCTION OF SULPHATES IN TANNING.....	8
2.5. REDUCTION OF SULPHATES FROM DYES and RETANNING AGENTS.....	8
3. GUIDELINES FOR THE TANNING CHROME REDUCTION in Tannery wastewater.....	9
3.1. CHROME RECOVERY.....	9
3.2. OPTIMIZATION OF THE CHROME FIXATION.....	10
Amount of chromium salt (in Cr ₂ O ₃).....	10
Float, long.....	11
Final temperature of tanning.....	11
Duration of tanning.....	11
pH of the end tanning.....	11
Masking.....	11

CONCLUSION..... 12

TANNERIES TASK

RELOCATION... ROADMAP

ADVANTAGES	RISKS
Not stopping selling	W. Process interruption
Outline the individual layout	Poor linkage MEE & RLC
Personnel retraining	Manpower
LTTC provide services	Delay operating CETP



CID TASK



COST ... BENEFIT

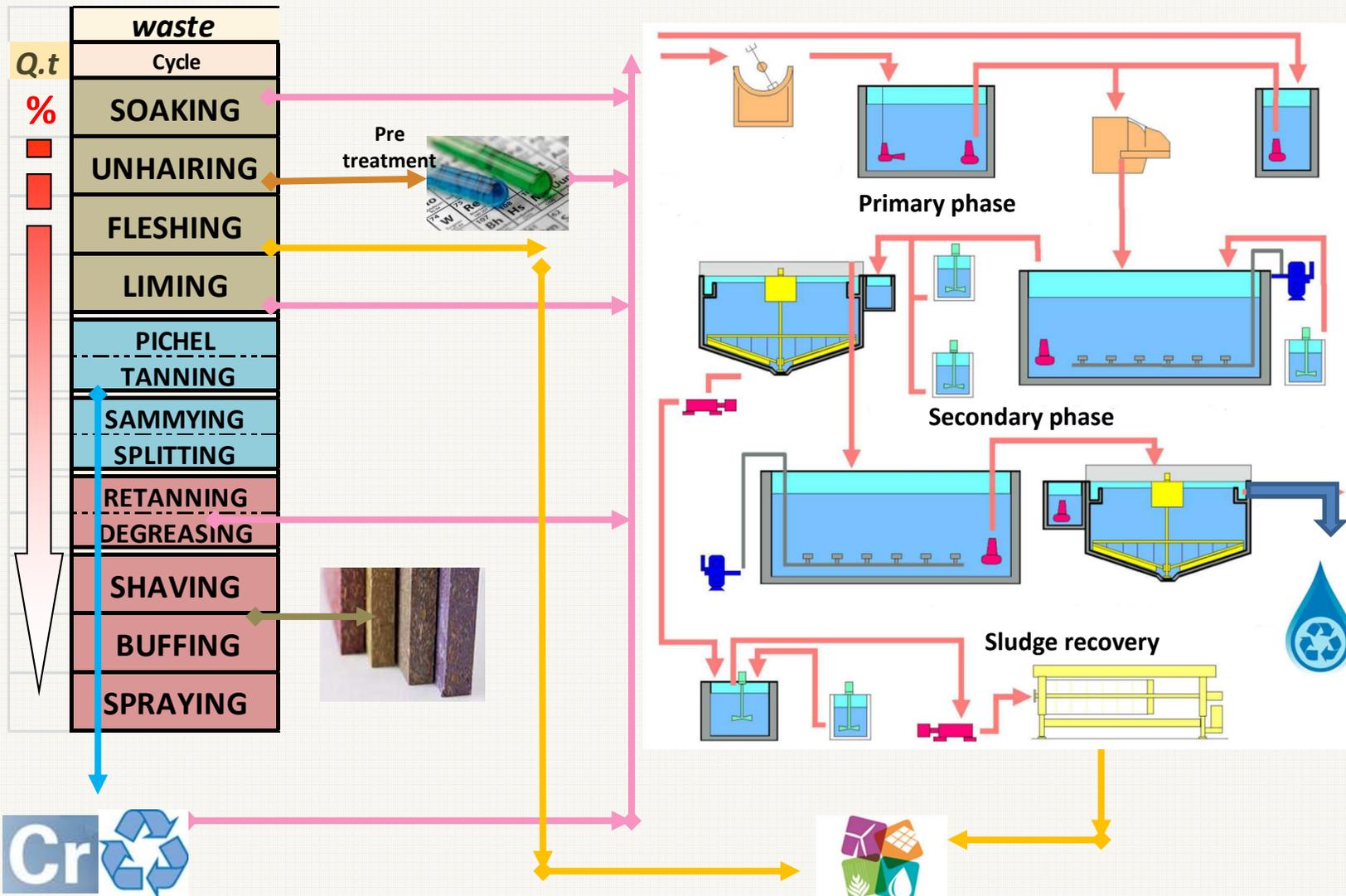


CID TASK

TANNING WASTE WATER ... FLOW MAP

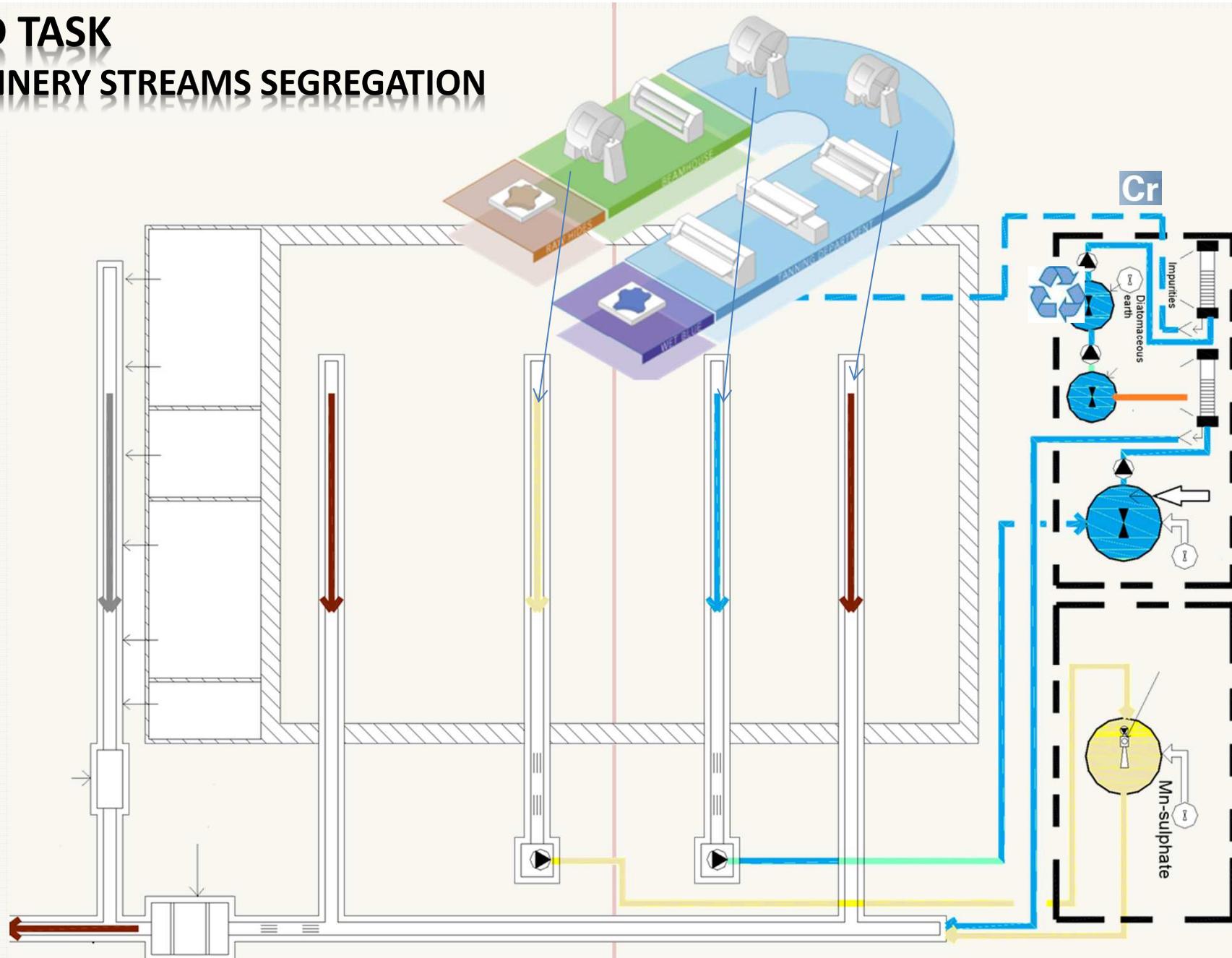


Upstream ...provide a good "SELECTION" for ensuring effective waste management ...Downstream



CID TASK

TANNERY STREAMS SEGREGATION



L TTC TASK CERTIFICATION



Recommended goals¹: stabilization at +2.0-2.4°C; emission reduction in 2050 by -50 to -85% compared to 2000

Sources¹: IPCC (Intergovernmental Panel on Climate Change), 4th Assessment Report, 2007; Synthesis Report, Climate Change Conference, 2009.

Candidate List table

Notes:

- **EC number, CAS number:** The EC number includes both anhydrous and hydrated forms of a substance and consequently the entries cover both these forms. The CAS number included may be for the anhydrous form only, and therefore the CAS number shown does not always describe the entry accurately.
- **IUCLID 5 Substance Datasets:** These are partly pre-filled substance data sets in IUCLID 5.3 format. They are provided as a support for importers or producers of articles preparing notifications for substances in articles. The notifying company remains, however, solely responsible for the appropriateness and correctness of the information submitted in the notification.
- **Reason for Inclusion:** Superscript figures denote information on conditions applicable to the classification of the substance. This information can be accessed through the "Details" button and is available in the sub-menu "Substance Details" in field "Other remarks".

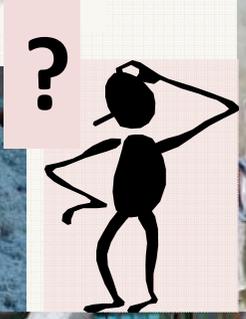
› [Candidate List Introduction](#)

Number of Substances on the Candidate List: 84 (last updated: 18/06/2012)

Showing 41 - 60 of 84 results. Items per Page: 20 Page: 3 of 5

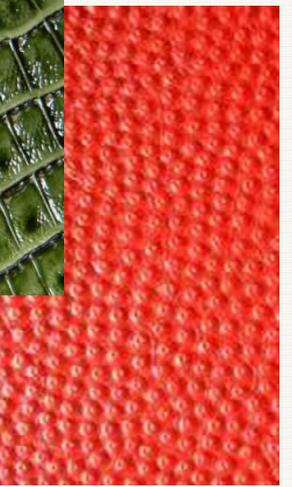
Substance Name	EC Number	CAS Number	Date of inclusion	Reason for inclusion	Decision number	IUCLID 5 Substance Dataset	
Hydrazine	206-114-9	302-01-2, 7803-57-8	2011/06/20	Carcinogenic (article 57a)	ED/31/2011		Details
Cobalt(II) diacetate	200-755-8	71-48-7	2010/12/15	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)	ED/95/2010		Details
Cobalt(II) sulphate	233-334-2	10124-43-3	2010/12/15	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)	ED/95/2010		Details
2-Ethoxyethanol	203-804-1	110-80-5	2010/12/15	Toxic for reproduction (article 57c)	ED/95/2010		Details
Acids generated from ...							

LTTT TASK → SERVICE AND R&D



Animal skin

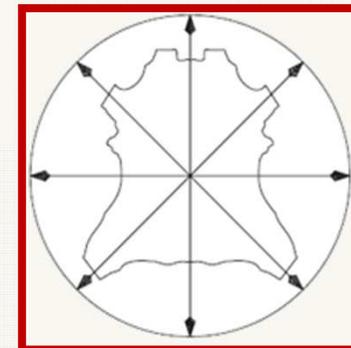
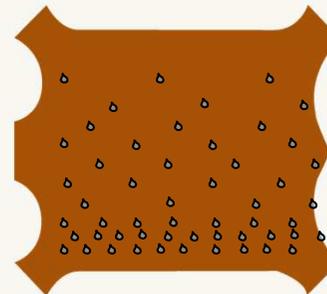
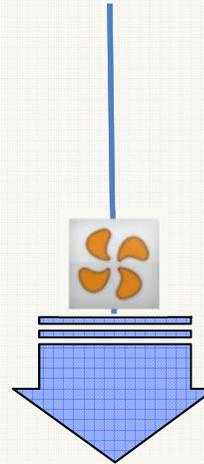
Good for leather furnishing



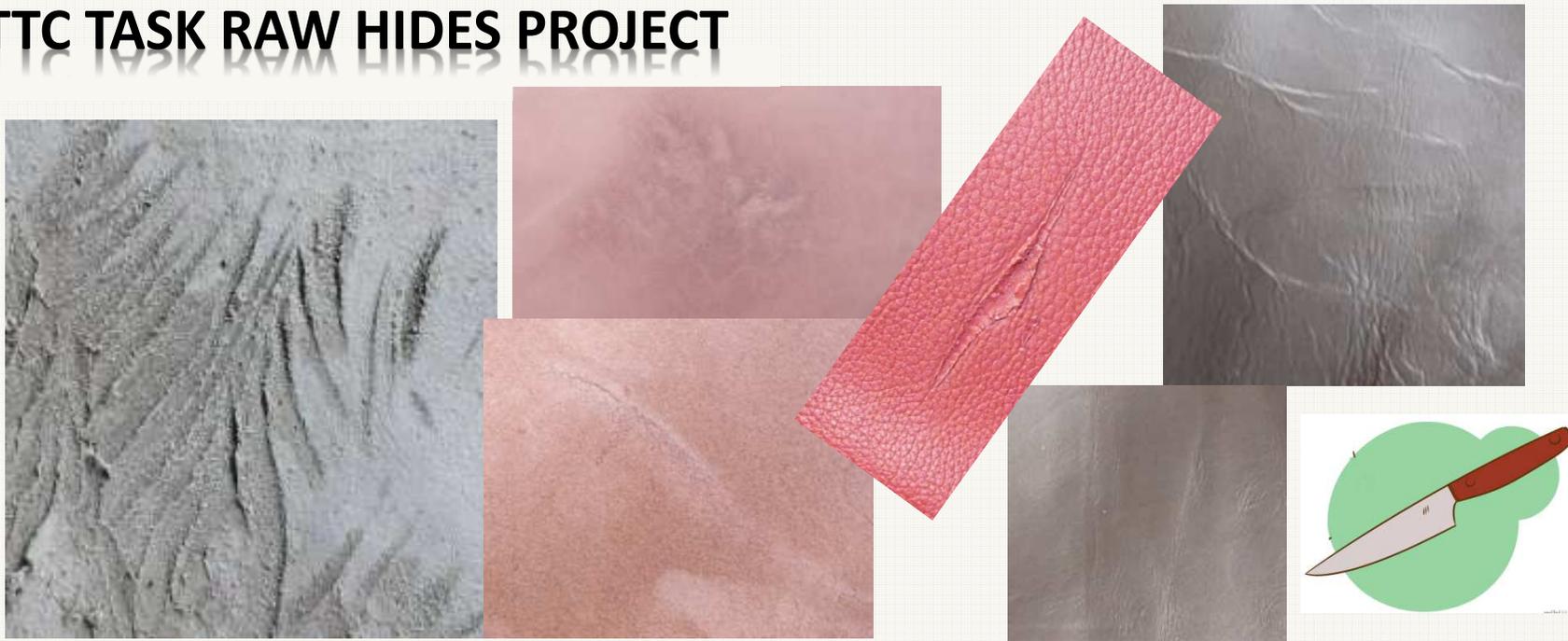
LTTT TASK → SERVICE R&D



**DRY
CONSIDERATION**



LTTT TASK RAW HIDES PROJECT



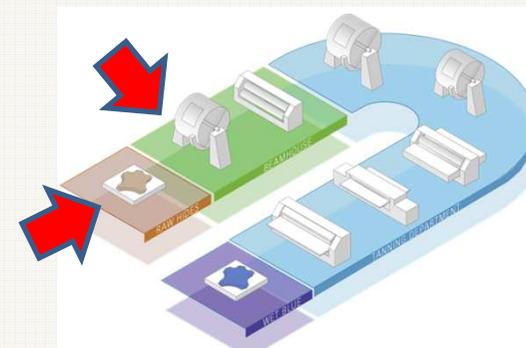
LIVE STOCK

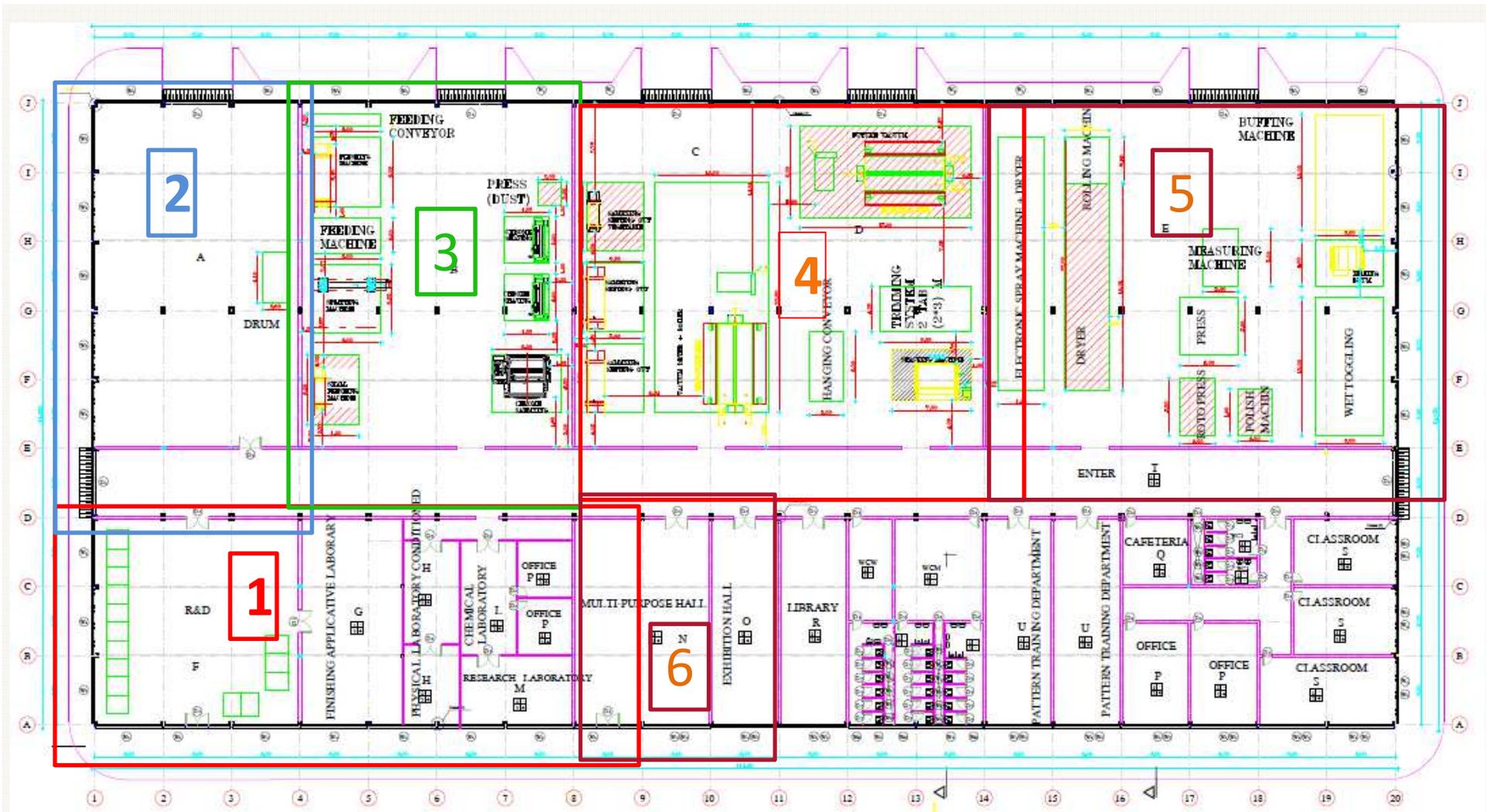


SLAUGHTERING



BEAMHOUSE





- 1 Laboratories
- 2 Warehouse (wet blue and chemicals)
- 3 Treatment wet blue
- 4 Drying
- 5 Finishing
- 6 Measuring and Finisch warehouse