



Key services to circular economy



# Book of experiences

**20-year anniversary : 50 experiences !**

Get around the cycle...

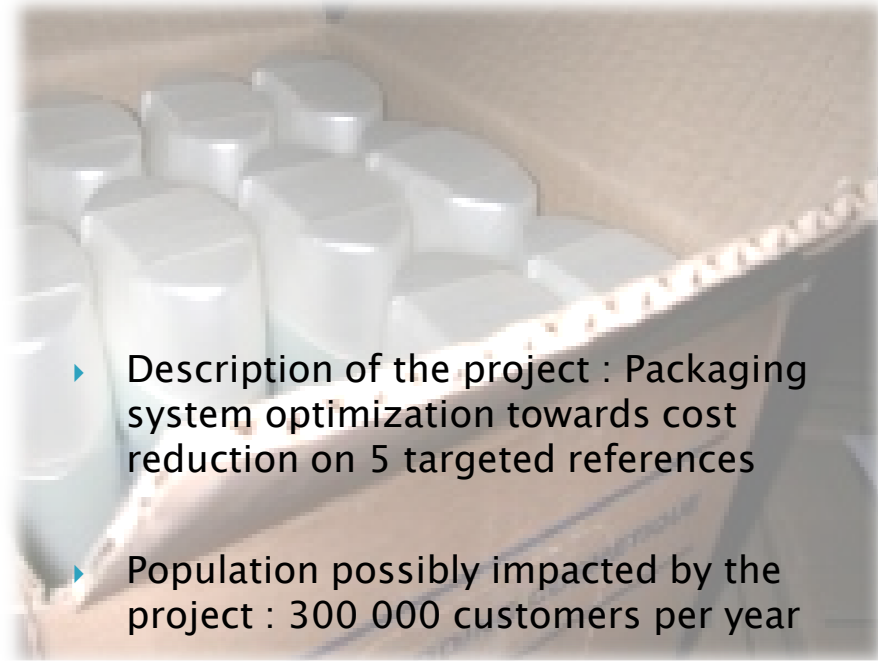






Key services to circular economy

- ▶ # 1
- ▶ **AUCHAN PACKAGING OPTIMIZATION**
- ▶ Place of intervention : Lille, France
- ▶ Date of intervention : 2003–2004
- ▶ Project sector : Retail
- ▶ Project owner / partner : AUCHAN
- ▶ Source of funding : AUCHAN
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Creation of a new department



- ▶ Description of the project : Packaging system optimization towards cost reduction on 5 targeted references
- ▶ Population possibly impacted by the project : 300 000 customers per year
- ▶ Achieved tasks :
  - Targeting of references which packaging system is interesting to optimize
  - Complete studies dealing with design, organization, gathering, palletization and packaging combination
  - Evaluation of possible savings en terms of economic and environmental costs



Key services to circular economy

- ▶ # 2
- ▶ **PLASTIC RECYCLING FEASIBILITY IN TOGO**
- ▶ Place of intervention : Lomé, Togo
- ▶ Date of intervention : 2004
- ▶ Project sector : NGO
- ▶ Project owner / partner : CDT
- ▶ Source of funding : OIF
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Creation of a recycling workshop

- ▶ Description of the project : Feasibility and formulation of a project to support household waste sanitation in Lomé
- ▶ Population possibly impacted by the project : 2 million inhabitants
- ▶ Achieved tasks :
  - Introducing a separation at source in the existing collection system
  - Searching for local possibilities of supply and dimensioning



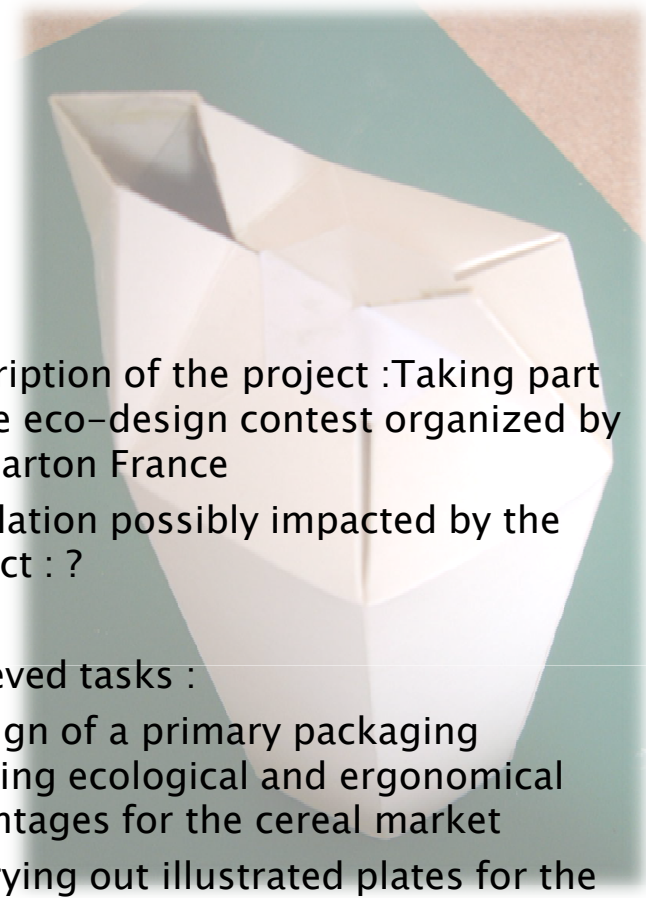


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- ▶ # 3
- ▶ **PROCARTON ECO-DESIGN CONTEST**

- ▶ Place of intervention : Paris, France
- ▶ Date of intervention : 2004
- ▶ Project sector : Packaging
- ▶ Project owner / partner : OmegaPack
- ▶ Source of funding : CNE, ADEME
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Creation of new packaging design

- ▶ Description of the project : Taking part to the eco-design contest organized by Pro Carton France
- ▶ Population possibly impacted by the project : ?
- ▶ Achieved tasks :
  - Design of a primary packaging showing ecological and ergonomical advantages for the cereal market
  - Carrying out illustrated plates for the contest presentation
  - Drafting and deposit of an application for a patent of invention on certain technical aspects





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- ▶ # 4
- ▶ **WASTE RECYCLING IN MAURITANIA**
- ▶ Place of intervention : Nouakchott, Mauritania
- ▶ Date of intervention : 2004
- ▶ Project sector : Solid waste management
- ▶ Project owner / partner : GRET
- ▶ Source of funding : GRET
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Funding of a plastic recycling project by the EU



- ▶ Description of the project : Design of a program to support household plastic waste recycling in Nouakchott
- ▶ Population possibly impacted by the project : 1 million inhabitants
- ▶ Achieved tasks :
  - Characterization of household plastic waste from a zoning based on housing
  - Enquiries in order to take into account the level of local development
  - Organization of a collection system by paid bringing
  - Audit of a plastic waste recycling project by rotomolding technology in Senegal
  - Identification of local ways, both existing and to be set by a support to initiative





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- ▶ # 5
- ▶ **PLASTIC RECYCLING FEASIBILITY**
- ▶ Place of intervention : Huê, Việt-Nam
- ▶ Date of intervention : 2004
- ▶ Project sector : Solid waste management
- ▶ Project owner / partner : Company of Environment and Urban Works
- ▶ Source of funding : French Regional Council
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : New projects about plastic recycling

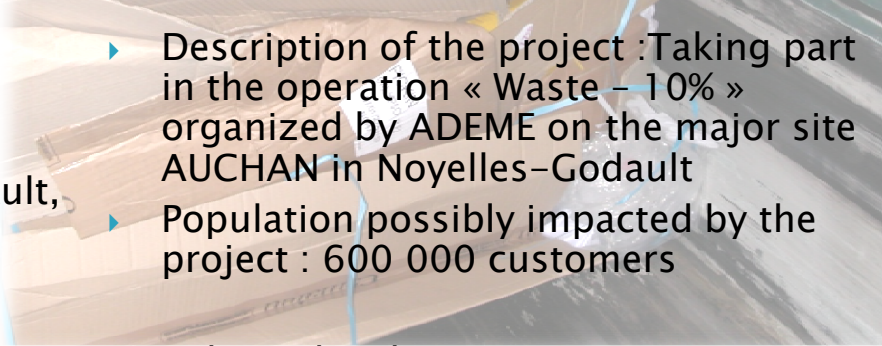


- ▶ Description of the project : Feasibility of a recycling project into construction products of household plastic waste in Huê
- ▶ Population possibly impacted by the project : 400 000 inhabitants

- ▶ Achieved tasks :
  - Identification of a technology able to manufacture molded products from a blending of plastic waste
  - Characterization of household plastic waste of Huê and taking into account the implemented collection system
  - Precise definition of technical and economic conditions to implement 4 ways to manufacture usable products
  - Evaluation of product prices, investment to achieve and technical nature to incorporate



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- ▶ # 6
  - ▶ **“WASTE – 10%” FOR AUCHAN**
  - ▶ Place of intervention : Noyelles–Godault, France
  - ▶ Date of intervention : 2004–2006
  - ▶ Project sector : Solid waste management
  - ▶ Project owner / partner : AUCHAN
  - ▶ Source of funding : ADEME
  - ▶ Role in the project : Recycling expert
  - ▶ Progress to date : Over
  - ▶ Impact to date : Larger orientation of packaging waste towards recycling
- 
- ▶ Description of the project : Taking part in the operation « Waste – 10% » organized by ADEME on the major site AUCHAN in Noyelles–Godault
  - ▶ Population possibly impacted by the project : 600 000 customers
  - ▶ Achieved tasks :
    - Implementing an action plan towards the valorization of the packaging waste at the levels of shopping centre and gallery
    - Supporting the implementation of a selective collection system in the new gallery
    - Sensitization of the managing people to the quality of waste sorting
    - Advising for the rationalization of solid waste management on the whole site



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- ▶ # 7
- ▶ **PLASTICS RECYCLING IN HAITI**
- ▶ Place of intervention : Pétionville, Haiti
- ▶ Date of intervention : 2005
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : FHE
- ▶ Source of funding : USAID
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Demonstrated technical feasibility of plastic recycling in Haiti



- ▶ Description of the project : Specification of a recycling project for plastic waste in poor neighborhoods of Pétionville
- ▶ Population possibly impacted by the project : 400 000 inhabitants

- ▶ Achieved tasks :
  - Organization of the selective collection system within the community organization
  - Technical and economical design of the treatment to produce raw materials
  - Market study for the sales of secondary raw materials





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- ▶ # 8
- ▶ **WASTE RECYCLING IN HONDURAS**
- ▶ Place of intervention : Tegucigalpa, Honduras
- ▶ Date of intervention : 2005
- ▶ Project sector : Solid waste management
- ▶ Project owner / partner : CARE
- ▶ Source of funding : ILO
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Additional means to avoid infant labor through recycling



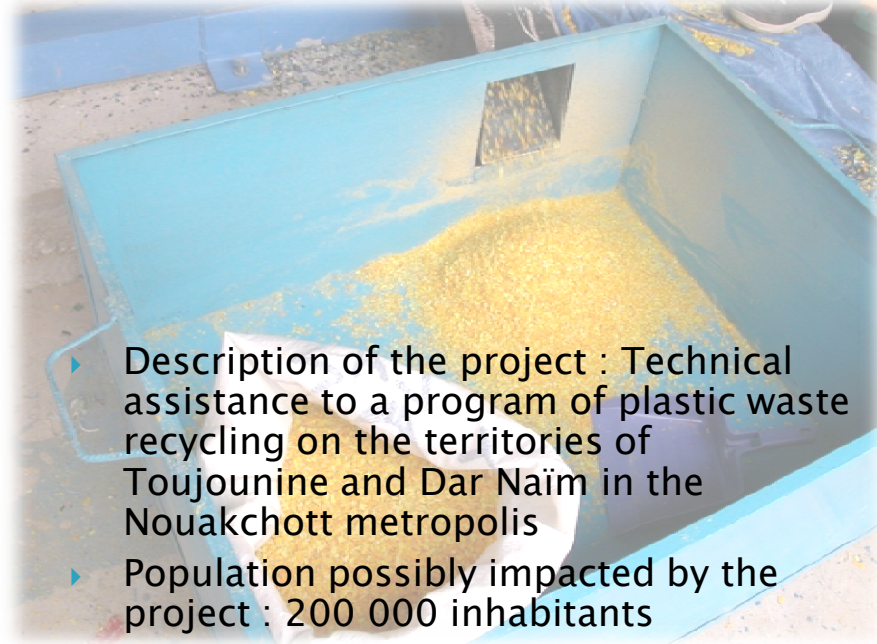
- ▶ Description of the project : Mid-term evaluation of a project aimed at eradicating the infant labor through recycling in Tegucigalpa
- ▶ Population possibly impacted by the project : 1 200 000 inhabitants
- ▶ Achieved tasks :
  - Inventory of local solid waste management with a focus on recycling, especially at the dumpsite level
  - Evaluation of efficiency with regard to the principal objective to eradicate the infant labor and the secondary objectives to improve and integrate the solid waste valorization supply chains





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- ▶ # 9
- ▶ **PLASTICS RECYCLING IN MAURITANIA**
- ▶ Place of intervention : Nouakchott, Mauritania
- ▶ Date of intervention : 2006–2007
- ▶ Project sector : Plastic industry
- ▶ Project owner / partner : GRET
- ▶ Source of funding : EU
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Development of private initiatives to recycle plastics



- ▶ Description of the project : Technical assistance to a program of plastic waste recycling on the territories of Toujounine and Dar Naïm in the Nouakchott metropolis
- ▶ Population possibly impacted by the project : 200 000 inhabitants
- ▶ Achieved tasks :
  - Actualization and refining of the economical data of the project
  - Revising the collection and treatment modes of the plastic waste
  - Information of the potential des entrepreneurs on the various valorization possibilities
  - Setting of a system of following–evaluation of the project according to the EU framework



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- ▶ # 10
- ▶ **PLASTICS RECYCLING IN BURKINA FASO**

- ▶ Place of intervention : Koudougou, Burkina Faso
- ▶ Date of intervention : 2006

- ▶ Project sector : Plastic industry
- ▶ Project owner / partner : ARP
- ▶ Source of funding : ADEME
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Improvement of technical features of plastic recycling process



- ▶ Description of the project : Technical assistance to a recycling project of plastic waste into molded products in Koudougou
- ▶ Population possibly impacted by the project : 200 000 inhabitants

- ▶ Achieved tasks :
  - Characterization and projection of the local disponibility of interesting plastic waste
  - Technical and economical evaluation of collection possibilities
  - Searching for heat production alternative possibilities to wood burning
  - Audit and review of the manufacturing methods of molded products with focus on security



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- ▶ # 11
- ▶ **MANAGEMENT OF PLASTICS IN NIGER**
- ▶ Place of intervention : Niamey, Niger
- ▶ Date of intervention : 2006
- ▶ Project sector : Policy
- ▶ Project owner / partner : Ministry of Environment / BURGEAP
- ▶ Source of funding : EU
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Adoption of a national action plan towards plastic waste



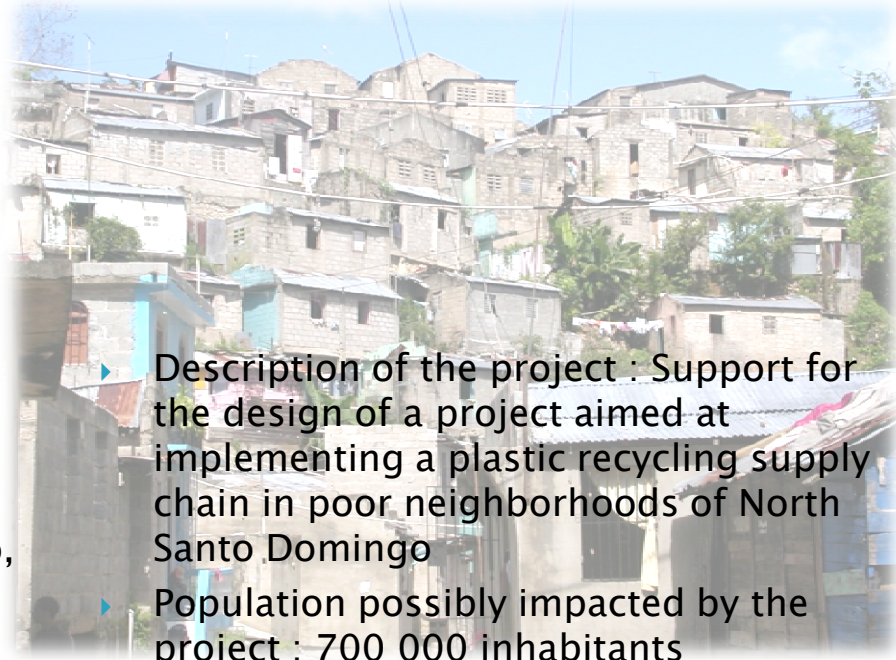
- ▶ Description of the project : Elaboration of an operation national strategy of plastic waste management in Niger to the benefit of the Ministère de l'Hydraulique, de l'Environnement et de la Lutte Contre la Désertification
- ▶ Population possibly impacted by the project : 23 million inhabitants
- ▶ Achieved tasks :
  - Setting of a methodology of quantification of plastic waste and evaluation of main actors
  - Achieving of a complete diagnostic and projection towards 2015 of the plastic waste management at the national scale
  - Determination of the strategy principles with the participation of institutional actors
  - Definition of an action plan allowing the implementing of the national strategy with respect to the principles
  - Organization of a validation workshop for the national strategy and its action plan in the presence of main actors





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- ▶ # 12
- ▶ **PLASTICS RECYCLING IN DOMINICAN REPUBLIC**
- ▶ Place of intervention : Santo Domingo, Dominican Republic
- ▶ Date of intervention : 2006
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Municipality of Santo Domingo Norte / IDDI
- ▶ Source of funding : AFD
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Design of a new local project



- ▶ Description of the project : Support for the design of a project aimed at implementing a plastic recycling supply chain in poor neighborhoods of North Santo Domingo
- ▶ Population possibly impacted by the project : 700 000 inhabitants
- ▶ Achieved tasks :
  - Integration of a selective collection from an existing collection system
  - Local market study for the flowing of secondary raw materials to the plastic industry



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- ▶ # 13
- ▶ **WASTE MANAGEMENT PLAN IN HAITI**

- ▶ Place of intervention : Cap-Haitien, Haiti
- ▶ Date of intervention : 2006-2007

- ▶ Project sector : Waste management
- ▶ Project owner / partner : City of Cap-Haïtien / HRDF
- ▶ Source of funding : City of Suresnes

- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Design of a new local project



- ▶ Description of the project : Pre-feasibility of an integrated master plan of solid waste management in Cap Haitien
- ▶ Population possibly impacted by the project : 300 000 inhabitants

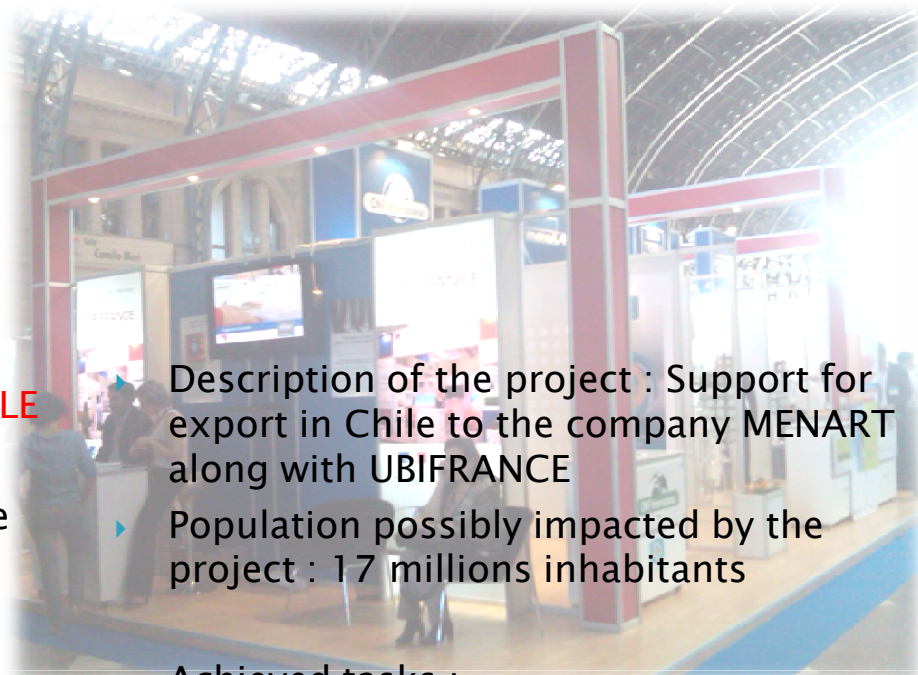
- ▶ Achieved tasks :
  - Inventory of local practice and monitoring of participation of various stakeholders
  - Evaluation of possible sites to implement a controlled landfill
  - Design of a technical and administrative framework of management integrating composting and recycling
  - Evaluation of the expected social and economical impacts of the project
  - Assessment of the greenhouse gaz emission impacts of the project to get «

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- ▶ # 14
- ▶ **WASTE TECHNOLOGY EXPORT IN CHILE**
- ▶ Place of intervention : Santiago, Chile
- ▶ Date of intervention : 2009
- ▶ Project sector : Waste management
- ▶ Project owner / partner : MENART / CD2E
- ▶ Source of funding : UBIFRANCE
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Opening of new markets for composting technologies



- ▶ Description of the project : Support for export in Chile to the company MENART along with UBIFRANCE
- ▶ Population possibly impacted by the project : 17 millions inhabitants
- ▶ Achieved tasks :
  - Preparation for the exhibition Ambient 2009 held in Santiago
  - Organization and assistance to business meetings
  - Follow up of the identified opportunities





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- ▶ # 15
- ▶ **PACKAGING ECODESIGN IN KENYA**
- ▶ Place of intervention : Nairobi, Kenya
- ▶ Date of intervention : 2010
- ▶ Project sector : Food and drug industry
- ▶ Project owner / partner : Kenya NCPC
- ▶ Source of funding : UNIDO
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Sensitization about packaging ecodesign



- ▶ Description of the project : Identification of possibilities to improve efficiency through packaging in the Kenyan industry
- ▶ Population possibly impacted by the project : 51 million inhabitants
- ▶ Achieved tasks :
  - Awareness rising of potentially interested companies through the National Cleaner Production Centre
  - Diagnosis of packaging systems and action plan proposals to improve the industrial and environmental efficiency
  - Training of a local partner to carry out a part of the optimization process of packaging systems



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- ▶ # 16
- ▶ **DISTRIBUTION PACKAGING ECODESIGN IN FRANCE**
- ▶ Place of intervention : Roncq, France
- ▶ Date of intervention : 2010
- ▶ Project sector : Cloth industry
- ▶ Project owner / partner : IDS / EVEA
- ▶ Source of funding : ADEME
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Promotion of ecodesign interest in distribution packaging



- ▶ Description of the project :  
Environmental assessment and eco-design of a round arch of shoes with EVEA
- ▶ Population possibly impacted by the project : 300 000 customers per year
- ▶ Achieved tasks :
  - Collection of data related to life cycles of the products in France and China
  - Contribution to the comparison of the environmental profiles of 5 round arches
  - Contribution to the research of eco-design improvements for the round arch and its packaging





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- ▶ # 17
- ▶ **WASTE MANAGEMENT IN CHILE**
- ▶ Place of intervention : Antofagasta, Chile
- ▶ Date of intervention : 2010
- ▶ Project sector : Waste management
- ▶ Project owner / partner : City of Antofagasta / BURGEAP
- ▶ Source of funding : French government
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Development of the conditions to set a SWM master plan



- ▶ Description of the project : Setting of a master plan of solid waste integrated management with demonstration of appropriate technologies in the region of Antofagasta
- ▶ Population possibly impacted by the project : 600 000 inhabitants
- ▶ Achieved tasks :
  - Coordination with the BURGEAP correspondent in Chile
  - Involvement of French companies likely to supply appropriate equipments
  - Writing of the full folder for funding claim towards the French Ministry



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- ▶ # 18
- ▶ **MANAGEMENT OF INDUSTRIAL RECYCLING UNIT IN FRANCE**
- ▶ Place of intervention : Noyon, France
- ▶ Date of intervention : 2010–2011
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : ARF
- ▶ Source of funding : ARF
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Restart of the industrial unit



- ▶ Description of the project : Restarting the activities of an industrial unit of recycling further to its bankruptcy and purchase
- ▶ Population possibly impacted by the project : ?
- ▶ Achieved tasks :
  - Industrial diagnosis of the current site
  - Reinitiating of the business relationships
  - Support for the strategic orientation of the further development
  - Projection of the implementation on a new site



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- ▶ # 19
- ▶ **WASTE RECYCLING IN COSTA RICA**
- ▶ Place of intervention : San José, Costa Rica
- ▶ Date of intervention : 2011
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : Ministry of industry/ ACEPESA
- ▶ Source of funding : ACEPESA
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Support for recycling projects



- ▶ Description of the project : Overview of the recycling possibilities in San José
- ▶ Population possibly impacted by the project : 5 million inhabitants
- ▶ Achieved tasks :
  - Diagnosis of current SWM and recycling projects
  - Participation to local community workshops
  - Investigation of recycling possibilities in the local industry

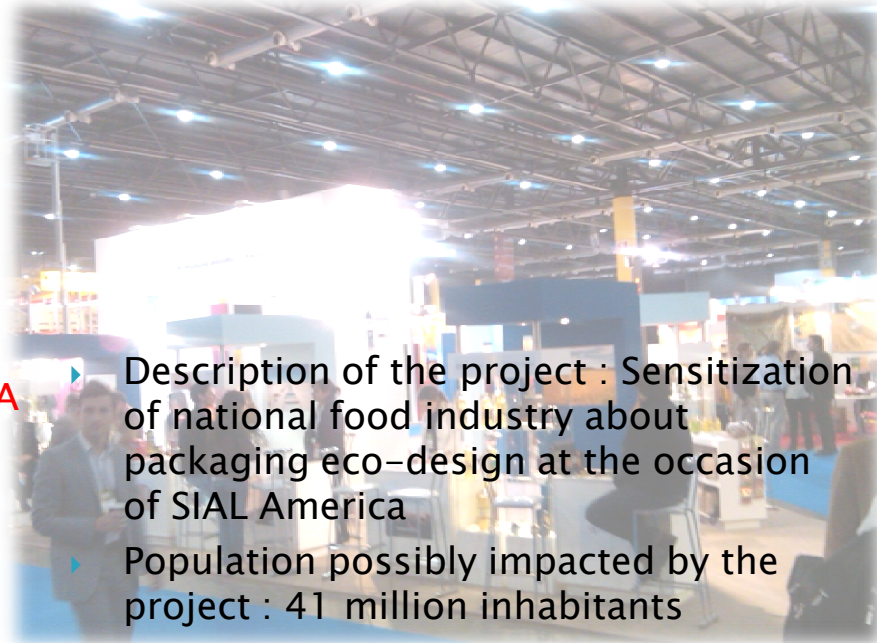




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- ▶ # 20
- ▶ **PACKAGING ECO-DESIGN IN ARGENTINA**

- ▶ Place of intervention : Buenos Aires, Argentina
- ▶ Date of intervention : 2011
- ▶ Project sector : Food industry
- ▶ Project owner / partner : AL-Invest
- ▶ Source of funding : EU
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Knowledge improvement at national scale

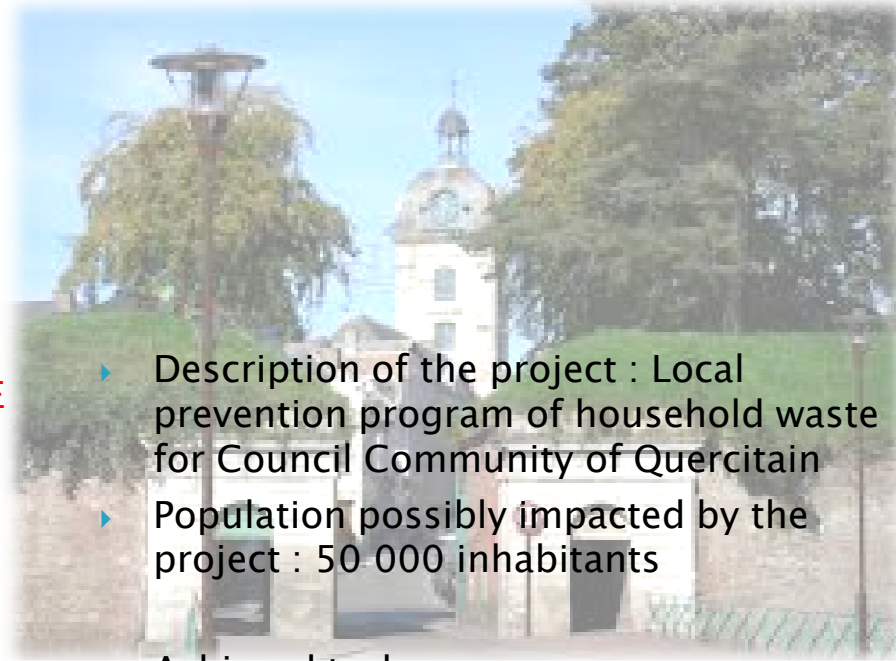


- ▶ Description of the project : Sensitization of national food industry about packaging eco-design at the occasion of SIAL America
- ▶ Population possibly impacted by the project : 41 million inhabitants
- ▶ Achieved tasks :
  - Presentation in front of a panel from Union Industrial Argentina (UIA)
  - Meeting exhibitor of food industry at SIAL America 2011



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- ▶ # 21
- ▶ **SOLID WASTE PREVENTION IN FRANCE**
- ▶ Place of intervention : Le Quesnoy, France
- ▶ Date of intervention : 2011–2012
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : Community of Quercitain
- ▶ Source of funding : ADEME
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Achievement of a solid waste reduction of 7%



- ▶ Description of the project : Local prevention program of household waste for Council Community of Quercitain
- ▶ Population possibly impacted by the project : 50 000 inhabitants
- ▶ Achieved tasks :
  - Full diagnosis on the basis of current management, possible synergies and potential actors
  - Concerted choice of actions in accordance to strengths and weaknesses, opportunities and threats
  - Presentation of each action according to its feasibility
  - Organization of action plan under the form of a scheduled, budgeted and easy-to-evaluate program



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- ▶ # 22
- ▶ **WASTE MANAGEMENT PLAN IN RWANDA**

- ▶ Place of intervention : Kigali, Rwanda
- ▶ Date of intervention : 2012
- ▶ Project sector : Waste management
- ▶ Project owner / partner : City of Kigali / BURGEAP
- ▶ Source of funding : CTB
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Adoption of a solid waste management master plan



- ▶ Description of the project : Waste management strategic plan of the City of Kigali
- ▶ Population possibly impacted by the project : 900 000 inhabitants
- ▶ Achieved tasks :
  - Situation analysis on the current system, the legal and institutional framework
  - Definition of modalities of minimization, collection and treatment inducing an improvement of waste management through a 10-year program
  - Drafting of a strategic plan document
  - Presentation of the strategic plan during an endorsement workshop organized by the City of Kigali



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- ▶ # 23
- ▶ **RECYCLING EVALUATION AND PLAN IN TOGO**

- ▶ Place of intervention : Lomé, Togo
- ▶ Date of intervention : 2013

- ▶ Project sector : Recycling organization
- ▶ Project owner / partner : City of Lomé / ANTEA
- ▶ Source of funding : AFD

- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Improvement of the collection and recycling strategy



- ▶ Description of the project : Assessment of the collection system and plan to formalize the recycling of solid waste in the City of Lomé
- ▶ Population possibly impacted by the project : 1 million inhabitants

- ▶ Achieved tasks :
  - Inventory of the collection system of household waste based on field enquiries
  - Evaluation of the reorganization induced by the PEUL program under criteria of relevance, effectiveness, efficiency and durability
  - Recommendations to improve and extend the collection system to the Grand Lomé
  - Diagnosis of household waste reuse, recovery and recycling practice
  - Design of an action plan to implement

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▶ # 24  
▶ **WASTE MANAGEMENT PLAN IN HAITI**

- ▶ Place of intervention : Cap-Haitien, Haiti
- ▶ Date of intervention : 2013-2015

- ▶ Project sector : Waste management
- ▶ Project owner / partner : City of Cap-Haitien
- ▶ Source of funding : AFD

- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Setting of an operational plan for the city and its surroundings



- ▶ Description of the project : Technical expertise for the solid waste management plan of the city of Cap-Haitien
- ▶ Population possibly impacted by the project : 500 000 inhabitants

- ▶ Achieved tasks :
  - Elaboration of a strategic plan of integrated solid waste management including the master plan
  - Design of an action plan including the recruitment of workforce
  - Development of a communication plan to help the launching of new collection system
  - Localization and design of transfer stations all over the municipal territory
  - Identification of waste valorization opportunities by composting and recycling

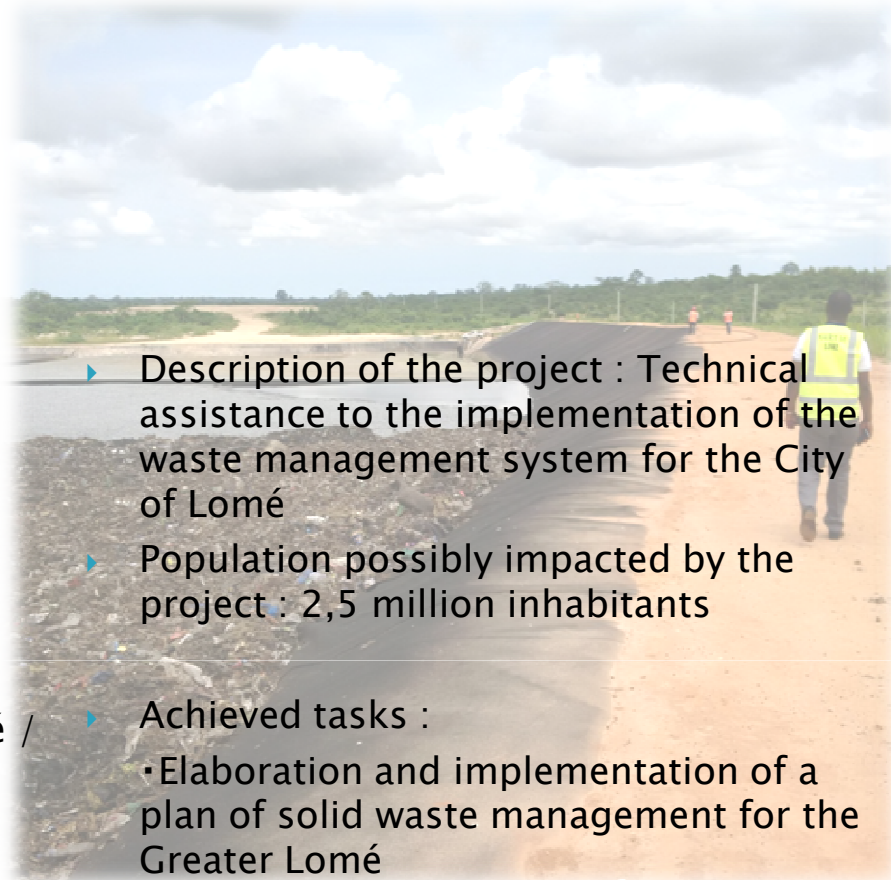
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- ▶ # 25
- ▶ **WASTE MANAGEMENT ASSISTANCE IN TOGO**
- ▶ Place of intervention : Lomé, Togo
- ▶ Date of intervention : 2014–2016
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Greater Lomé / EGIS
- ▶ Source of funding : AFD
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Improvement of the collection services and setting of a new sanitary landfill



- ▶ Description of the project : Technical assistance to the implementation of the waste management system for the City of Lomé
- ▶ Population possibly impacted by the project : 2,5 million inhabitants

- ▶ Achieved tasks :
  - Elaboration and implementation of a plan of solid waste management for the Greater Lomé

- Selection and recruitment of new operators for collection
- Follow-up of implementation of modifications on transfer stations as well as the integration of recycled waste gathering points
- Implementation of the communication to support the re-launching of the collection system
- Coordination for the preparation of the

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- ▶ # 26
- ▶ **WASTE MANAGEMENT PLAN IN KENYA**
- ▶ Place of intervention : Nairobi, Kenya
- ▶ Date of intervention : 2017
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Nairobi City Council / ANTEA
- ▶ Source of funding : World Bank
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Achievement of a solid waste management business plan



- ▶ Description of the project : Design of a solid waste management framework for Kibera slum in Nairobi
- ▶ Population possibly impacted by the project : 200 000 inhabitants

- ▶ Achieved tasks :
  - Situation analysis and diagnosis including the inventory of the active NGOs / CBOs and the setting of a local solid waste committee
  - Feasibility study of collection system and composting treatment
  - Selection and operationalization of the preferred scheme
  - Elaboration of the full business plan for the preferred scheme
  - Detailed design, preparation of the bid documents and cost estimates for the needed infrastructure

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- ▶ # 27
- ▶ **WASTE MANAGEMENT ASSISTANCE IN FRANCE**
- ▶ Place of intervention : St Nazaire, France
- ▶ Date of intervention : 2017
- ▶ Project sector : Waste management
- ▶ Project owner / partner : CARENE, SMCNA / ECOGEOS
- ▶ Source of funding : ADEME
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Adaptation of recycling to the extended sorting instructions

	A	B	C	D	E	F	G	H	I	J
4	Papiers graphiques 2.05	3,3%	1,4%	3,1%	0,5%	9,5%	1,76	0,74	1,61	0,2
5	GDM 1.02	5,1%	2,7%	5,8%	0,4%	19,5%	2,66	1,41	3,05	0,2
6	ELA 5.03 aplatis	1,6%	0,3%	0,7%	0,5%	2,8%	0,83	0,18	0,39	0,2
7	ELA 5.03 non aplatis	0,2%	0,2%	0,3%	0,0%	1,2%	0,13	0,08	0,17	0,0
8	Plastiques	7,0%	1,4%	3,1%	2,9%	15,4%	3,65	0,74	1,61	1,5
9	PET clair Bouteilles et flacons	3,3%	0,7%	1,5%	1,6%	7,4%	1,72	0,35	0,76	0,8
10	PET foncé Bouteilles et flacons	2,0%	0,4%	0,9%	0,7%	4,0%	1,05	0,23	0,49	0,3
11	PEHD Bouteilles et flacons	1,7%	0,5%	1,0%	0,3%	4,0%	0,89	0,25	0,55	0,1
12	Consignes de tri élargies	4,0%	1,0%	2,7%	1,7%	9,4%	2,08	0,52	1,13	0,2
13	Déchets valorisables	2,4%	0,5%	1,0%	1,2%	4,4%	1,26	0,24	0,52	0,6
14	Plastiques	2,4%	0,5%	1,0%	1,2%	4,4%	1,26	0,24	0,52	0,6
15	PET clair Pots et barquettes	0,5%	0,2%	0,4%	0,1%	1,6%	0,28	0,09	0,19	0,0
16	PET foncé Pots et Barquette	0,2%	0,1%	0,2%	0,0%	0,9%	0,10	0,05	0,11	0,0
17	PEHD Pots et barquettes	0,1%	0,1%	0,1%	0,0%	0,5%	0,05	0,03	0,07	0,0
18	Emballages rigides PP	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
19	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
20	Déchets potentiellement valorisables	0,5%	0,3%	0,7%	0,1%	3,1%	0,28	0,16	0,35	0,0
21	Emballages rigides PS	0,4%	0,2%	0,4%	0,0%	1,6%	0,20	0,10	0,20	0,0
22	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,1%	0,01	0,01	0,01	0,0
23	Emballages rigides PVC	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
24	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
25	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
26	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
27	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
28	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
29	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
30	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
31	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
32	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
33	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
34	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
35	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
36	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
37	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
38	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
39	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
40	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
41	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
42	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
43	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
44	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
45	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
46	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
47	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
48	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
49	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
50	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
51	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
52	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
53	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
54	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
55	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
56	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
57	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
58	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
59	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
60	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
61	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
62	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
63	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
64	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
65	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
66	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
67	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
68	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
69	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
70	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
71	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
72	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
73	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
74	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
75	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
76	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
77	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
78	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
79	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
80	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
81	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
82	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
83	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
84	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
85	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
86	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
87	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
88	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
89	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
90	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
91	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
92	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
93	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
94	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
95	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
96	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
97	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2
98	Emballages rigides PPS	0,6%	0,3%	0,6%	0,0%	0,2%	0,02	0,02	0,04	0,0
99	Films PEHD	0,9%	0,3%	0,6%	0,1%	2,8%	0,45	0,15	0,32	0,0
100	Déchets non valorisables	1,0%	0,2%	0,5%	0,4%	1,8%	0,55	0,12	0,26	0,2

Description of the project - Support for interpretation of waste characterization results and formulation of recommendations to two communities (CARENE et SMCNA)

- ▶ Population possibly impacted by the project : 300 000 inhabitants
- ▶ Achieved tasks :
  - Analysis of characterization results in flows of separated waste, main waste and brought waste for various backgrounds
  - Analysis of recycling opportunities for the new flows of materials from the extended sorting instructions especially for plastic waste (PP, PS, BDPE) and subsequent recommendations



Key services to circular economy

- ▶ # 28
- ▶ **RECYCLING PLAN IN INDIAN OCEAN**

- ▶ Place of intervention : Port Louis, Mauritius
- ▶ Date of intervention : 2017
- ▶ Project sector : Recycling organization
- ▶ Project owner / partner : IOC / ANTEA
- ▶ Source of funding : AFD
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Adaptation of action plan and communication campaign



- ▶ Description of the project : Elaboration and planning of regional recycling supply chain for non-household waste in the IOC
- ▶ Population possibly impacted by the project : 28 millions inhabitants

- ▶ Achieved tasks :
  - Synthetic presentation of information collected during a diagnostic study about the technical and ruling aspects
  - Definition and evaluation of the possible regional supply chains in the short-term
  - Elaboration of an action plan including an institutional framework and a communication plan





Key services to circular economy

- ▶ # 29
- ▶ **RECOVERY CENTER IN FRANCE**
- ▶ Place of intervention : Lille, France
- ▶ Date of intervention : 2018
- ▶ Project sector : Recovery organization
- ▶ Project owner / partner : Entraide et Partage
- ▶ Source of funding : OmegaPack
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Preparation of a future local recovery project



- ▶ Description of the project : Setting and feasibility of a new local recovery center in the Metropolis of Lille
- ▶ Population possibly impacted by the project : 1 million inhabitants
- ▶ Achieved tasks :
  - Visit of several patterns of recovery centers on the national territory
  - Looking for orientations about positioning, financing and settling
  - Opportunity study to sourcing of recoverable waste
  - Feasibility study of the means for valorization and sales



Key services to circular economy

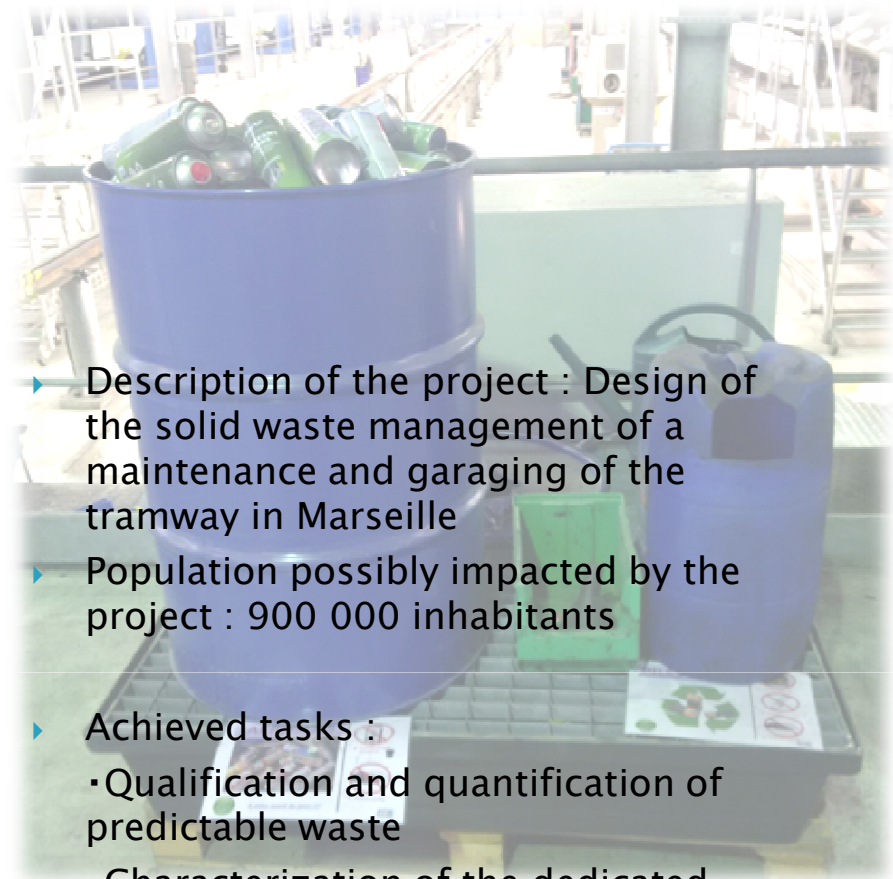
- ▶ # 30
- ▶ **WASTE MANAGEMENT PLAN IN KENYA**
- ▶ Place of intervention : Kisumu, Kenya
- ▶ Date of intervention : 2017–2018
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Kisumu City Council / SOFRECO
- ▶ Source of funding : AFD
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Identification of improvement perspectives for the City of Kisumu

- 
- A photograph of the Kisumu City Hall, a large, multi-story building with a classical architectural style, featuring columns and a central emblem. The building is partially obscured by a semi-transparent text box containing project details.
- ▶ Description of the project : Support for technical assistance to the urban development project of Kisumu about solid waste management
  - ▶ Population possibly impacted by the project : 600 000 inhabitants
  - ▶ Achieved tasks :
    - Revision of the strategic plan of integrated solid waste management
    - Review of the proposal about final treatment of solid waste
    - Design and settling of a 2-step collection system involving the local stakeholders
    - Development of new ways of plastic recycling and composting
    - Technical support for proposal evaluation and contract writing



Key services to circular economy

- ▶ # 31
- ▶ **WASTE MANAGEMENT OF TRAMWAY CENTER IN FRANCE**
- ▶ Place of intervention : Marseille, France
- ▶ Date of intervention : 2018
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Metropole of Marseille / EGIS
- ▶ Source of funding : Metropole of Marseille
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Insertion of solid waste management into the whole design of the center



- ▶ Description of the project : Design of the solid waste management of a maintenance and garaging of the tramway in Marseille
- ▶ Population possibly impacted by the project : 900 000 inhabitants
- ▶ Achieved tasks :
  - Qualification and quantification of predictable waste
  - Characterization of the dedicated receptacles and premises of the site
  - Analysis of the removal and recovery ways



Key services to circular economy

- ▶ # 32
- ▶ **RECYCLING DEVELOPMENT IN BRAZIL**
- ▶ Place of intervention : Belo Horizonte, Brazil
- ▶ Date of intervention : 2018
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : INSEA
- ▶ Source of funding : French Embassy in Brazil
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Preparation of local recycling initiatives



- ▶ Description of the project : Support for the development of valorization ways in Belo Horizonte
- ▶ Population possibly impacted by the project : 2,5 million inhabitants
- ▶ Achieved tasks :
  - Expertise on the supply chains set by the organization INSEA
  - Analysis of the possibilities of development of new local supply chains of industrial recycling and organic valorization
  - Presentation of the expectations from circular economy in France during a conference organized by the French Embassy in Brazil





Key services to circular economy

- ▶ # 33
- ▶ **RECYCLING INTEGRATION IN BOLIVIA**

- ▶ Place of intervention : El Alto, Bolivia
- ▶ Date of intervention : 2018

- ▶ Project sector : Waste management
- ▶ Project owner / partner : Organization of local communities / ANTEA
- ▶ Source of funding : Interamerican Development Bank

- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Integration of local recycling possibilities



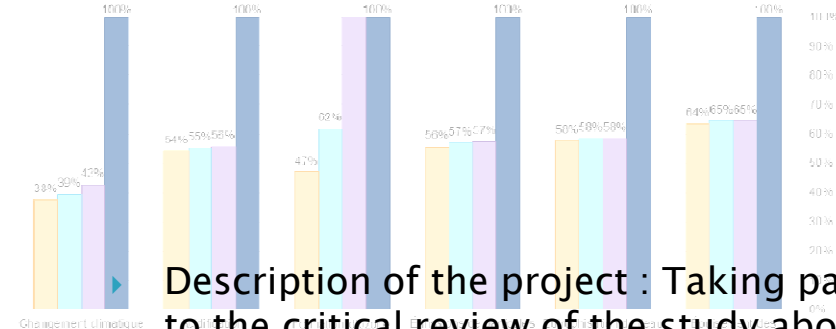
- ▶ Description of the project : Design of the recovery plan for solid waste in the watershed of Lake Titicaca in El Alto
- ▶ Population possibly impacted by the project : 200 000 inhabitants
- ▶ Achieved tasks :
  - Diagnostic of the current situation
  - Identification of new recovery ways
  - Feasibility studies of the recovery ways
  - Contribution to the master plan of integral management of solid waste
  - Assessment of the possible alternatives
  - Planning and design of transit, sorting and recycling facilities
  - Support for the development of recycling ways



Key services to circular economy

- ▶ # 34
- ▶ BAG LCA COMPARISON IN FRANCE
- ▶ Place of intervention : Angers, France
- ▶ Date of intervention : 2018–2019
- ▶ Project sector : Environment protection
- ▶ Project owner / partner : ADEME / EVEA
- ▶ Source of funding : ADEME
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Higher reliability and consistency of the analysis

Figure 5-11 : Analyse de sensibilité sur l'influence d'une réutilisation des sacs en plastique biosourcé et biodégradable en tant que sacs à biodéchets pour les catégories d'impact identifiées comme pertinentes



Description of the project : Taking part to the critical review of the study about LCA comparison of bags for fruits and vegetables

- ▶ Population possibly impacted by the project : 67 millions inhabitants
- ▶ Achieved tasks :
  - Review of the methodology for data collection
  - Critical reading of the study reports especially about hypothesis and conclusions



Key services to circular economy

- ▶ # 35
- ▶ **PACK LCA COMPARISON WORLDWIDE**
- ▶ Place of intervention : Villeneuve d'Ascq, France
- ▶ Date of intervention : 2018–2019
- ▶ Project sector : Food industry
- ▶ Project owner / partner : BONDUELLE / EVEA
- ▶ Source of funding : BONDUELLE
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Eco-design of new packagings for conservative and fresh vegetables

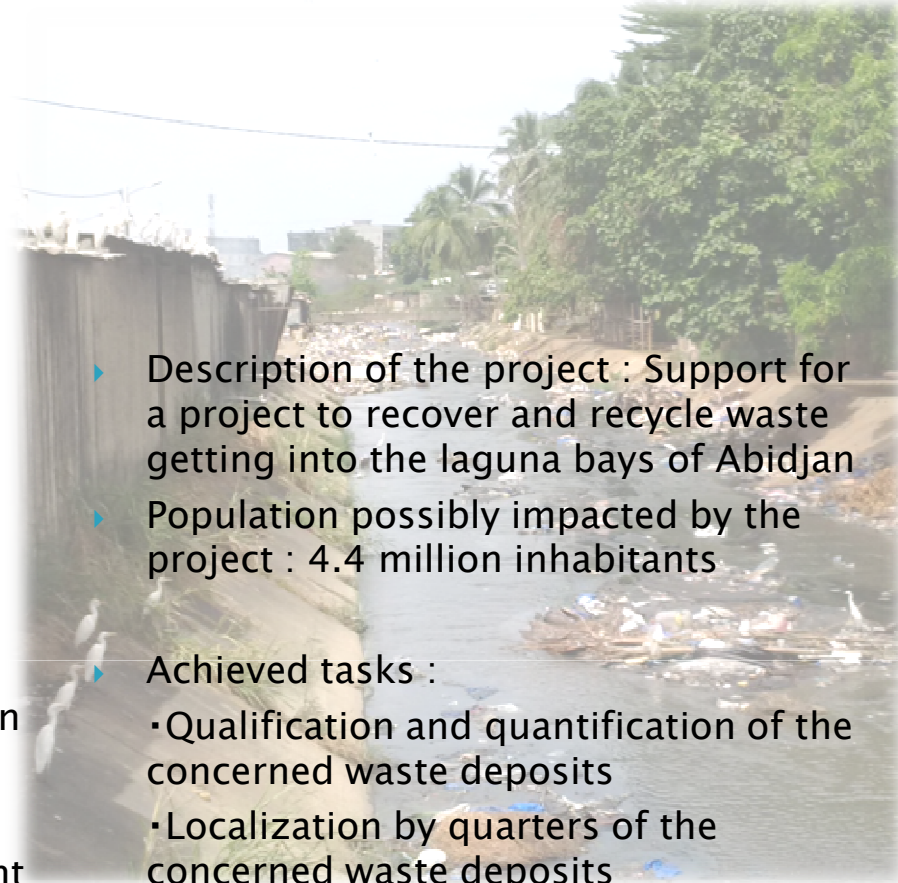


- ▶ Description of the project : Eco-design of packaging systems by LCA comparison for BONDUELLE
- ▶ Population possibly impacted by the project : ?
- ▶ Achieved tasks :
  - Identification and selection of packaging systems to be studied
  - Gathering data related to the manufacturing and the use of 12 packaging systems at European scale
  - Support for modelization of life cycles of packaging systems
  - Support for interpretation and presentation of LCA results
  - Help with decision making of packaging systems



Key services to circular economy

- ▶ # 36
- ▶ **OCEAN PLASTICS IN IVORY COAST**
- ▶ Place of intervention : Abidjan, Ivory Coast
- ▶ Date of intervention : 2019
- ▶ Project sector : Environment protection
- ▶ Project owner / partner : CIAPOL / KERAN
- ▶ Source of funding : French Government
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Better knowledge of local ocean plastics



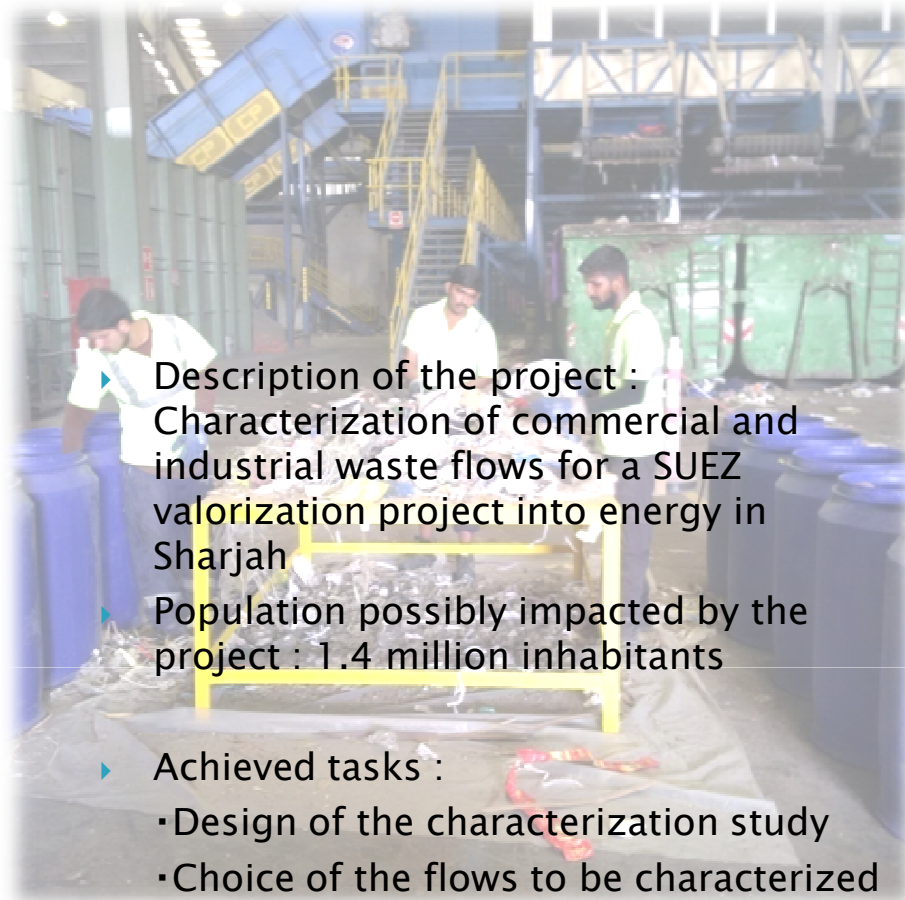
- ▶ Description of the project : Support for a project to recover and recycle waste getting into the laguna bays of Abidjan
- ▶ Population possibly impacted by the project : 4.4 million inhabitants
- ▶ Achieved tasks :
  - Qualification and quantification of the concerned waste deposits
  - Localization by quarters of the concerned waste deposits
  - Identification of the local possibilities of valorization
  - Design of the collection and sorting system to implement
  - Support for the project management





Key services to circular economy

- ▶ # 37
- ▶ **WASTE CHARACTERIZATION IN UAE**
- ▶ Place of intervention : Sharjah, UAE
- ▶ Date of intervention : 2019
- ▶ Project sector : Waste management
- ▶ Project owner / partner : SUEZ / BURGEAP
- ▶ Source of funding : SUEZ
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Better knowledge of local flows of solid waste

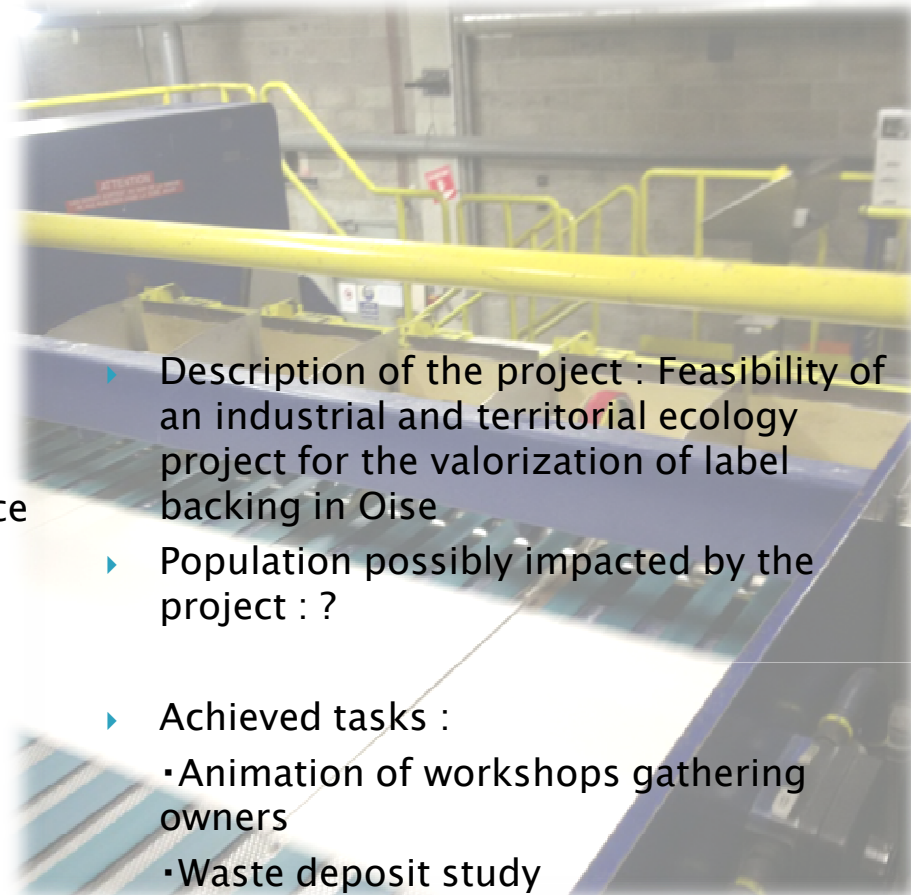


- ▶ Description of the project : Characterization of commercial and industrial waste flows for a SUEZ valorization project into energy in Sharjah
- ▶ Population possibly impacted by the project : 1.4 million inhabitants
- ▶ Achieved tasks :
  - Design of the characterization study
  - Choice of the flows to be characterized
  - Getting the first results of composition and density
  - Implementation of sampling, sorting and sending of samples to a laboratory in France
  - Analysis and interpretation of the whole results



Key services to circular economy

- ▶ # 38
- ▶ **INDUSTRIAL ECOLOGY IN FRANCE**
- ▶ Place of intervention : Beauvais, France
- ▶ Date of intervention : 2019
- ▶ Project sector : Waste management
- ▶ Project owner / partner : CCI Oise / INEX
- ▶ Source of funding : CHANEL
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Preparation of a new local recycling way

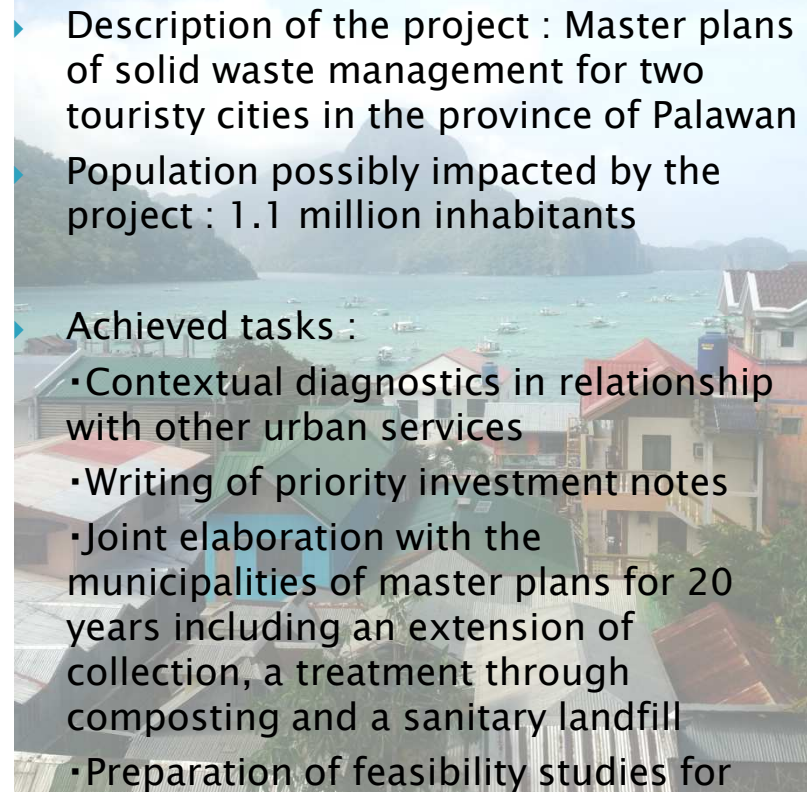


- ▶ Description of the project : Feasibility of an industrial and territorial ecology project for the valorization of label backing in Oise
- ▶ Population possibly impacted by the project : ?
- ▶ Achieved tasks :
  - Animation of workshops gathering owners
  - Waste deposit study
  - Deepening of the supply chain up to specifications
  - Analysis of the economical pattern
  - Mobilization of owners and service providers
  - Definition of the structuration needs
  - Planification of the project



Key services to circular economy

- ▶ # 39
- ▶ **WASTE MANAGEMENT IN THE PHILIPPINES**
- ▶ Place of intervention : Puerto Princesa, Philippines
- ▶ Date of intervention : 2019
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Government of Palawan / EGIS
- ▶ Source of funding : ADB
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Sensitization of the local communities to SWM master plans

- 
- A background image showing a coastal town in Palawan, Philippines, with colorful houses and a turquoise bay. The text is overlaid on the right side of the image.
- ▶ Description of the project : Master plans of solid waste management for two touristy cities in the province of Palawan
  - ▶ Population possibly impacted by the project : 1.1 million inhabitants
  - ▶ Achieved tasks :
    - Contextual diagnostics in relationship with other urban services
    - Writing of priority investment notes
    - Joint elaboration with the municipalities of master plans for 20 years including an extension of collection, a treatment through composting and a sanitary landfill
    - Preparation of feasibility studies for the priority investments



Key services to circular economy

- ▶ # 40
- ▶ **PACKAGING ECO-DESIGN IN FRANCE**

- ▶ Place of intervention : St Laurent-Blangy, France
- ▶ Date of intervention : 2020
- ▶ Project sector : Food industry
- ▶ Project owner / partner : SAS Perle du Nord / EVEA
- ▶ Source of funding : ADEME
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Choice of the best environmental packagings



- ▶ Description of the project : Packaging eco-design for cooperative SAS Perle du Nord
- ▶ Population possibly impacted by the project : ?
- ▶ Achieved tasks :
  - Training about eco-design to the managing team
  - Selection of most relevant cases
  - LCA comparative studies including new scenarios
  - Development of alternative solutions to plastic materials





Key services to circular economy

- ▶ # 41
- ▶ **CONTROL OF EXTERNAL RECYCLING IN FRANCE**
- ▶ Place of intervention : Paris, France
- ▶ Date of intervention : 2020
- ▶ Project sector : Recycling industry
- ▶ Project owner / partner : CITEO / ANTEA
- ▶ Source of funding : CITEO
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Better control procedure of recyclers outside UE



- ▶ Description of the project : Achievement of a control grid to assessed recyclers outside EU
- ▶ Population possibly impacted by the project : 67 million inhabitants
- ▶ Achieved tasks :
  - Review of the criteria from the European legislation related to solid waste management
  - Definition of indicators to be assessed for 5 materials with regard to the French regulation
  - Elaboration of the control grid with the various indicators by material
  - Writing of a user manual for the auditors



Key services to circular economy

- ▶ # 42
- ▶ **WASTE MANAGEMENT IN THE CARIBBEAN REGION**
- ▶ Place of intervention : Bridgetown, Barbados
- ▶ Date of intervention : 2020–2021
- ▶ Project sector : Waste management
- ▶ Project owner / partner : EU Delegation in Barbados / PROSPECT
- ▶ Source of funding : EU
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Identification of new opportunities to fund in the region

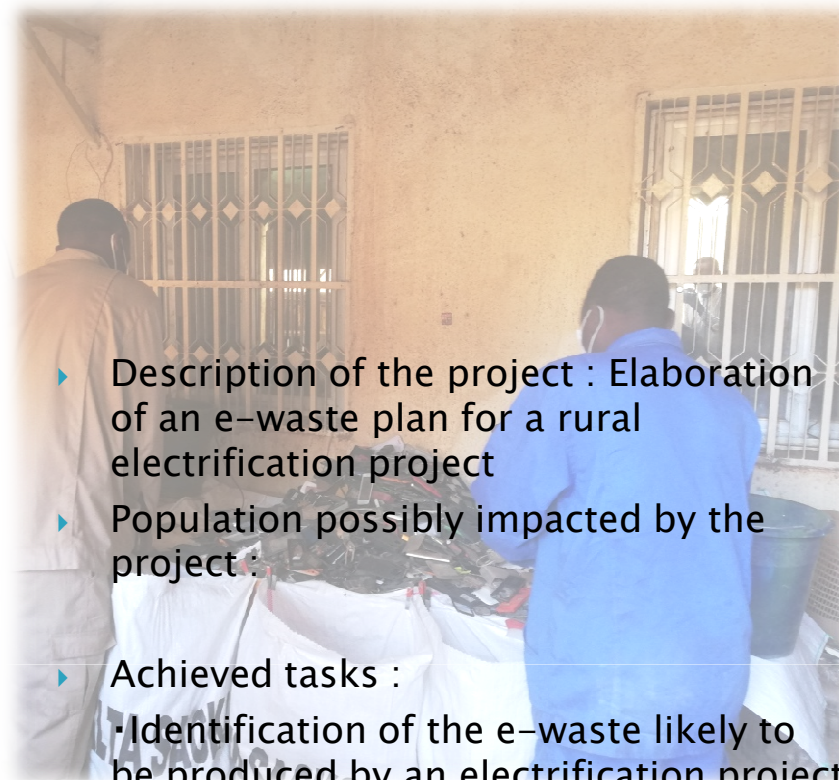


- ▶ Achieved tasks :
  - Review of the legislative and regulatory frameworks for the 17 member states of CARIFORUM
  - Assessment of the past and current project in the region
  - Definition of priority needs and recommendations for next steps
  - Development of an action frame of appropriate modalities for a regional plan



Key services to circular economy

- ▶ # 43
- ▶ **E-WASTE MANAGEMENT IN NIGER**
- ▶ Place of intervention : Niamey, Niger
- ▶ Date of intervention : 2021
- ▶ Project sector : Waste management
- ▶ Project owner / partner : ANPER / ANTEA
- ▶ Source of funding : AFD
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : Over
- ▶ Impact to date : Identification of new possible recovery ways for e-waste

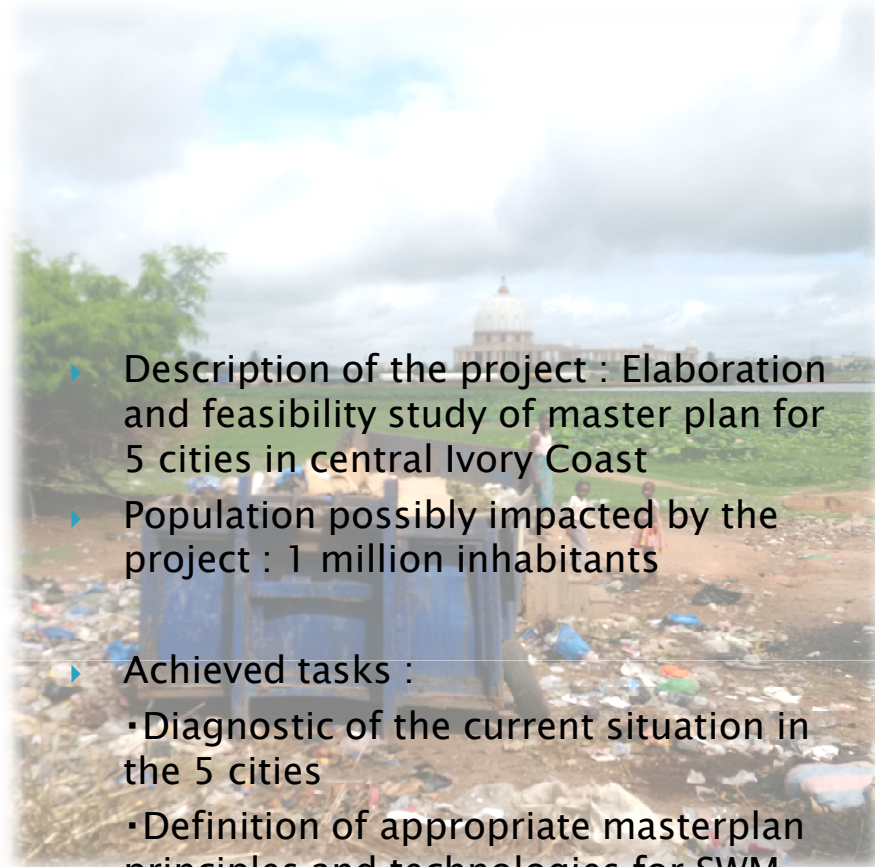


- ▶ Description of the project : Elaboration of an e-waste plan for a rural electrification project
- ▶ Population possibly impacted by the project :
- ▶ Achieved tasks :
  - Identification of the e-waste likely to be produced by an electrification project
  - Evaluation of local recovery ways in the region
  - Elaboration of appropriate e-waste collection and recovery procedures for the rural electrification project



Key services to circular economy

- ▶ # 44
- ▶ **WASTE MANAGEMENT MASTERPLAN IN IVORY COAST**
- ▶ Place of intervention : Yamoussoukro, Ivory Coast
- ▶ Date of intervention : 2021
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Ministry of sanitation / IDOM
- ▶ Source of funding : World Bank
- ▶ Role in the project : Waste management expert and team leader
- ▶ Progress to date : Over
- ▶ Impact to date : Identification of common ways to collect, recycle and dump solid waste



- ▶ Description of the project : Elaboration and feasibility study of master plan for 5 cities in central Ivory Coast
- ▶ Population possibly impacted by the project : 1 million inhabitants
- ▶ Achieved tasks :
  - Diagnostic of the current situation in the 5 cities
  - Definition of appropriate masterplan principles and technologies for SWM
  - Technical capacities and features of the facilities to be planned (transfer stations, decentralized MRFs, sanitary landfill)





Key services to circular economy

- ▶ # 45
- ▶ **PACKAGING WASTE IDENTIFICATION**
- ▶ Place of intervention : Angers, France
- ▶ Date of intervention : 2021
- ▶ Project sector : Waste recycling
- ▶ Project owner / partner : ADEME
- ▶ Source of funding : ADEME
- ▶ Role in the project : Waste management expert
- ▶ Progress to date : In progress
- ▶ Impact to date : Start of the declaration campaign for packaging waste recycling



- ▶ Description of the project : Definition of the new modes of recycled packaging national declaration
- ▶ Population possibly impacted by the project : 67 million inhabitants
- ▶ Achieved tasks :
  - Elaboration of the modalities for recycled packaging national declaration according to EU regulation
  - Feasibility checking of practical procedures
  - Definition of a coding system for the recovered material flows
  - Identification of all national recycling sites



Key services to circular economy

- ▶ # 46
- ▶ **PACKAGING REPLACEMENT EXPERTISE**

- ▶ Place of intervention : Villeneuve d'Ascq, France
- ▶ Date of intervention : 2021
- ▶ Project sector : Packaging use
- ▶ Project owner / partner : BONDUELLE
- ▶ Source of funding : BONDUELLE
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : Over
- ▶ Impact to date : Way forward to replacement of unavailable packaging



- ▶ Description of the project : Assessment of a replacement food contact packaging further to sold out
- ▶ Population possibly impacted by the project : 67 million inhabitants
- ▶ Achieved tasks :
  - Assessment of the current specifications
  - Evaluation of the operating and use constraints during a site visit
  - Definition of complementary tests to be performed on new packaging
  - Provisional recommendations and conclusion about the proposed packaging



Key services to circular economy

- ▶ # 47
- ▶ **SOLID WASTE MANAGEMENT EXPERTISE**

- ▶ Place of intervention : Paris, France
- ▶ Date of intervention : 2022

- ▶ Project sector : General services
- ▶ Project owner / partner : MALAKOFF HUMANIS / BURGEAP
- ▶ Source of funding : MALAKOFF HUMANIS

- ▶ Role in the project : Waste expert
- ▶ Progress to date : Over
- ▶ Impact to date : better recovery and recycling of main waste streams



- ▶ Description of the project : Support for improving corporate solid waste management
- ▶ Population possibly impacted by the project : 6 000 employees
- ▶ Achieved tasks :
  - Diagnostic of the various sites
  - Identification of gaps with regards to legislation
  - Identification of possible projects to improve reduction and recycling
  - Setting of guidelines for action plan



Key services to circular economy

- ▶ # 48
- ▶ **SOLID WASTE MANAGEMENT EXPERTISE**
- ▶ Place of intervention : Nouakchott, Mauritania
- ▶ Date of intervention : 2022
- ▶ Project sector : Waste management
- ▶ Project owner / partner : MERIDIAM / CPCS
- ▶ Source of funding : MERIDIAM
- ▶ Role in the project : Recycling expert
- ▶ Progress to date : Over
- ▶ Impact to date : Strategic knowledge for investment in solid waste management



- ▶ Description of the project : Economical study about recycling major materials in Mauritania
- ▶ Population possibly impacted by the project : 5 millions inhabitants

- ▶ Achieved tasks :
  - Evaluation of previous and current recycling activities in Nouakchott
  - Diagnostic of solid waste recycling possibilities in Nouakchott
  - Estimation of the market price and volumes for recycled plastics, metals and organics
  - Forecast of the market price according to international offer and demand for recycled materials





Key services to circular economy

- ▶ # 49
- ▶ **SOLID WASTE MANAGEMENT EXPERTISE**
- ▶ Place of intervention : Johannesburg, South Africa
- ▶ Date of intervention : 2022
- ▶ Project sector : Waste management
- ▶ Project owner / partner : Ministry of Environment
- ▶ Source of funding : OmegaPack
- ▶ Role in the project : Waste expert
- ▶ Progress to date : Over
- ▶ Impact to date : Awareness about the possible implementation of circular economy patterns

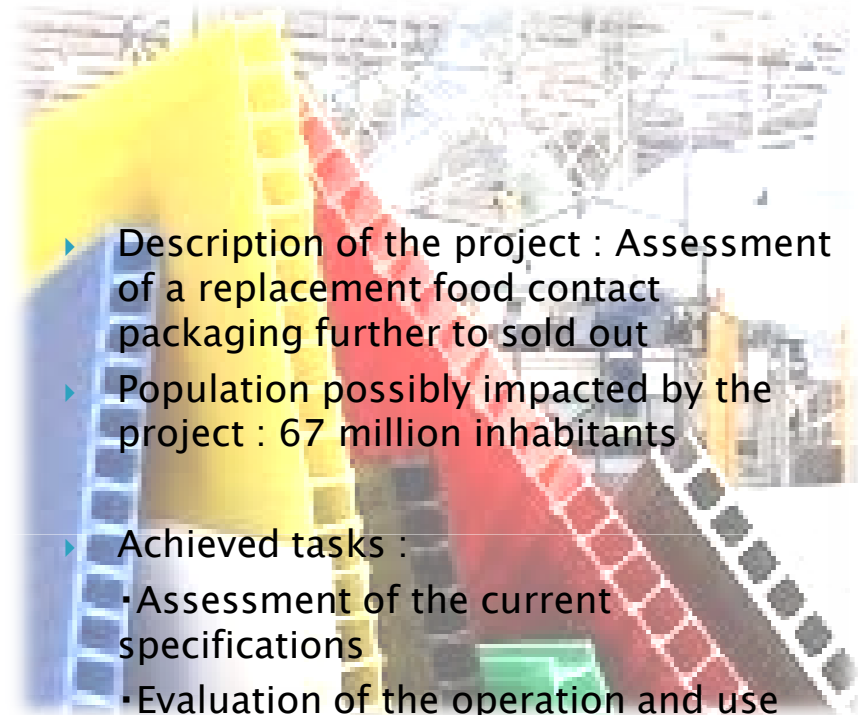


- ▶ Description of the project : Diagnostic of the situation of solid waste and possible strategy towards circular economy
- ▶ Population possibly impacted by the project : 59 millions inhabitants
- ▶ Achieved tasks :
  - Identification and evaluation of current patterns for collecting and recycling solid waste
  - Discussion with Greater Johannesburg Metropolitan Council and the Ministry of Environment about possibilities to foster circular economy



Key services to circular economy

- ▶ # 50
- ▶ **WASTE RECYCLING EXPERTISE**
- ▶ Place of intervention : Dunkerque, France
- ▶ Date of intervention : 2022
- ▶ Project sector : Waste recycling
- ▶ Project owner / partner : DISTRIPLAST
- ▶ Source of funding : DISTRIPLAST
- ▶ Role in the project : Packaging expert
- ▶ Progress to date : In progress
- ▶ Impact to date : Way forward to involving new reverse providers



- ▶ Description of the project : Assessment of a replacement food contact packaging further to sold out
- ▶ Population possibly impacted by the project : 67 million inhabitants
- ▶ Achieved tasks :
  - Assessment of the current specifications
  - Evaluation of the operation and use constraints during a site visit
  - Provisional recommendations and conclusion about the proposed packaging