



### FONDATION THÉOPHILE LEGRAND



## Prix International Théophile Legrand de l'Innovation Textile 2013

Pour rendre hommage à Théophile Legrand (fondateur de l'industrie lainière à Fourmies dans le Nord de la France), une fondation a été créée en 2007 par Christian Cambier, descendant de Théophile Legrand et son épouse Dominique. Cette Fondation est présidée par le Chancelier de l'Institut de France, Gabriel de Broglie, avec comme principal administrateur le paléontologue Philippe Taquet, Président de l'Académie des sciences. Deux Prix Théophile Legrand de l'Innovation Textile sont décernés chaque année depuis 2009. D'une valeur de 18 000 €, ces deux Prix récompensent deux chercheurs ou étudiants pour la création originale d'une matière, d'une fibre ou d'une étoffe dans le domaine des textiles techniques ou intelligents, d'un nouveau textile design innovant ou de nouveaux procédés de production industrielle textile. Le but est de favoriser l'innovation, la recherche, l'émulation et l'imagination en mettant en lumière la création technique et industrielle.

#### The 2013 Théophile Legrand International Prize for Textile Innovation

In honor of Théophile Legrand, founder of the wool industry in Fourmies, northern France, the Théophile Legrand Foundation-Institut de France was created in 2007 by Christian Cambier, descendant of Théophile Legrand and his wife Dominique. Gabriel de Broglie, Chancellor of the Institut de France, currently chairs the foundation, with the main administrator paleontologist Philippe Taquet, President of the Academy of Sciences. Since 2009, two Théophile Legrand awards have been granted annually. With a value of € 18,000, these two awards celebrate two distinguished researchers and/or students that have created original material, fiber or fabric in the field of technical textiles; or an innovative textile design and/or a new textile industrial production technique. The goal is to foster innovation, research, and imagination by showcasing emerging technical and industrial creations.

### www.theophilelegrand.com



























## Théophile Legrand Award for Innovative Textile

### becomes indispensable!



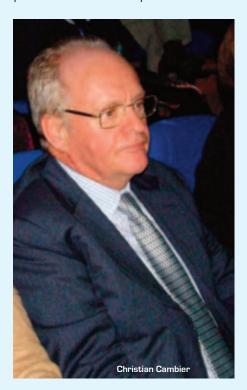




The 2013 Théophile Legrand International Prize for Textile Innovation will be awarded on **Saturday, October 5th at 4 pm located at ValJoly Eppe-Sauvage resort in the Conference Center** (France - 59). Applications should be sent by midnight **July 31, 2013**. ValJoly is located 20 kilometers from Fourmies, the hometown of Théophile Legrand and 3 kilometers from Liessies where Théophile Legrand had a weaving unit and degreasing wool one.

## A prize that leads to concrete products and many applications

This is a well known award among the largest international engineer schools of textile and the textile industry. In leading to concrete products, obtaining this award will be internationally recognized on the résumé of any winner. Starting May 10, 2013, Damart will market the invention of Bedek Gauthier, the winner of the 2010 Théophile Legrand Prize with its "self-refreshing" textile. Several other past winners are currently in a pre-industrialization phase for their



inventions. Their textiles have been characterized as: "detoxifying"; "clever"; "flame retardant"; "autorefreshing"; "shock and soundproof"; "self-cleaning and antibacterial"; "obstacle detecting"; "filament detector/effector"; the four first editions of the awards were sometimes revolutionary processes, which are now applications in many areas: medical, military, sports, aviation, sustainable development, assistance to disabled persons...

## Awareness of the prize beyond the borders of Europe!

With candidates from all over the world - North and South America. Asia, Africa, Europe, Middle-East... -Over the past 4 years, the Theophile Legrand Prize has become one of the most important awards internationally in terms of donations in the field of textile innovation with a total amount of € 18,000. Since its inception in 2009, 48 candidates have applied for the Théophile Legrand Award. Hailing from 19 different countries (USA, China, Great Britain, Italy, France, Germany, Belgium, Pakistan, Lithuania, Turkey, Egypt, Thailand, Bangladesh, India, Romania, Mali, Tunisia, Kazakhstan and Hungary), representing 24 of the largest universities, engineering textile schools or textile laboratories in Europe, Asia and North America (USA, China, France, Germany, Belgium, Great Britain, Italy, Hungary, Romania and Turkey.

#### An increased media exposure

There has been extensive media coverage of the Théophile Legrand Prize both nationally and internationally, not only televised but in print and on the web as well, which has included a variety of audiences, both of general and specialized interests (i.e.: France Télévision, Le Monde, AFP FashionMag, La Voix du Nord, Agence Nationale de la Recherche, textile.fr, Inov24; Magazine M & T2, Wikipedia, Kohan Textile Journal, Website inventions in Europe, www.i4u.com, Website Europeanline, www.fibre2fashion.com, www.uia.be, Witty Sparks, directo-e.com, Autex).

#### An international reference

The Théophile Legrand Prize is an example, frequently referenced by relevant French textile industries and Institutions dedicated to fashion and the sciences.

Simply put, the Théophile Legrand foundation – Institut de France intends to make the award in textile innovation a landmark recognition for researchers from all over the world.

### Théophile Legrand and Textile Innovation







Théophile Legrand (1799 - 1877) was a visionary leader of the textile industry of the nineteenth century who dedicated his life to shaping Fourmies. Historians from the north of France consider Théophile Legrand as the "Father of the wool industry," as well as and the "Father of the city of Fourmies." It was under his leadership that Fourmies would become a global center known for its combed wool in 1869. In 1910, following in his footsteps, his children and the regional industrialists were granted the title of capital of the world for worsted wool.

Textile innovation had always been at the heart of Théophile Legrand's concerns. His perseverance brought on unexpected industrial success, which propelled an enormous development for the tiny city. Sixty years of persistent work, ignoring the danger and anxiety and enduring restless days and sleepless nights, transformed Fourmies, the village he loved so much, into the city known for the finest worsted wool in the world.

Today, both cities Fourmies and Roubaix as well as the entire textile industry praise and revere the pioneer of the wool industry, Théophile Legrand. This world-renowned man applied his core values of righteousness and generosity to the field of industrial innovation. It is only fitting that Théophile Legrand have a Foundation and Textile Innovation Award in his name.

#### The first winners

#### 2009

1st Prize

#### Aurélie Cayla (France)

inventor of a " smart " textile that senses specific temperatures.

#### - 2<sup>nd</sup> Prize -

#### Christelle Reti (France),

creator of a new " fire retardant " textile now being used by the French army.

#### 2010

#### ---- 1st Prize -

Gauthier Bedek (France), designer of an " auto-refreshing " textile marketed by Damart.

- 2<sup>nd</sup> Prize -

#### Mohamed Abounaïm (Bangladesh),

inventor of a new shock and soundproof insulation textile.

#### 2011

#### - 1<sup>st</sup> Prize -

#### Munir Ashraf (Pakistan),

creator of a "self-cleaning" and "antibacterial" textile.

- 2<sup>nd</sup> Prize –

#### Senen Kurşun Bahadir (Turkey)

inventor of an "obstacle detecting" textile.

2012

1st Prize

#### Pierre-Alexandre Bourgeois (France),

creator of a decontaminating textile to treat air and water.

- 2<sup>nd</sup> Prize -

#### Mohamed Bouraoui Kechiche (Tunisia),

inventor of a sensor / effector filament piezoelectric and pyroelectric that can be integrated into various textile structures.

#### The jury and the committee of experts for 2013

The selection committee is composed of experts and jury members and chaired by:

#### Mr Christian Cambier

the founder of the Théophile Legrand Foundation - Institut de France, CEO and founder of Prigest in Paris.

#### The Jury Members:

#### Mr Yves Dubief

President of the Union des Industries Textiles, CEO of SA Tenthorey in Eloyes.

#### M<sup>r</sup> Dominique Jacomet

Professor and Director of the French Institute of Fashion Paris.

#### M<sup>r</sup> Patrice Gallant

President of CLUBTEX

#### Mrs André Beirnaert

Chairman of UP-tex Cluster - European Textile Competitiveness Cluster

#### Mrs Dominique Cambier

founding member of the Théophile Legrand Foundation - Institut de France

#### Mr Yves Cambier

Member of the Théophile Legrand Foundation - Institut de France

#### M<sup>r</sup> Louis de Genouillac

Communications Manager of the Institut de France in Paris

#### Mr Paul Schuler

Coordinator of the International Prize Théophile Legrand Textile Innovation

#### > The Committee of Experts

#### Mrs Brigitte Defoort

expert in materials and processes at Astrium Space Transportation - EADS.

#### Mrs Emmanuelle Butaud Stubbs

Stubbs, General Delegate of the Union of Textile Industries.

#### M<sup>r</sup> Michel Caillibotte

Laboratory Manager R&D - Damart in Roubaix.

#### **Prof. Paul Kiekens**

Secretary General of AUTEX (Association of Universities for Textiles) - Lecturer researcher at the University of Ghent in Belgium.

#### Prof. Vladan Koncar

Director of the GEMTEX Laboratory in Roubaix.

#### Prof. Ludovic Koehl

Professor and researcher at the ENSAIT in Roubaix.

#### **Prof. Denis Deranton**

Laboratory Manager at TIMTEX and professor - researcher at the Ecole des Hautes Etudes d'Ingénieurs de Lille (HEI).

#### Prof. Jean-Yves Drean

Lecturer / researcher at the Ecole Nationale Supérieure de Haute Alsace in Mulhouse [ENSIA].

#### Mr Guy Nemoz

Consultant specializing in " technical and innovative textiles "

#### Mrs Catherine Donnadieu

Journalist and Consultant specializing in " innovative technical textiles "

#### Mr Xavier Thierry

Director of the Sponsorship/Patronage and Development at the Ecole des Hautes Etudes d'Ingénieurs (HEI), former Head of Technical Textiles at DYLCO company in Bertry.

#### M<sup>r</sup> François-Xavier Delatte

President of the company Technical Textiles Duflot SAS in Caudry.

#### M<sup>r</sup> Jean-François Bracq

Secretary General of CLUBTEX and representative of Pole UP-Tex.

## Back to the 2012 Théophile Legrand International Prize for Textile Innovation







#### The inventor of decontaminating textile receives the 2012 Textile Innovation Award!

On Sunday, October 7 at the Abbaye Royale de Chaalis (Oise), the first Prize worth € 10,000 was awarded by **Philippe Taquet**, President of the Academy of Sciences since January 2013, to the French inventor **Pierre-Alexandre Bourgeois** for a decontaminating textile. The second Prize of € 8,000 was awarded by **Bernard Esambert**, Vice President of Lagardère Group, former President of the Pasteur Institute and advisor to President Georges Pompidou from 1969 to 1974, to **Mohamed Kechiche**, the Tunisian creator of a sensor/effector filament "piezoelectric" and "pyroelectric".

#### Highly technical innovations

Among the proposed inventions in 2012 we would like to acknowledge the following outstanding inventions: the creation of an integrated textile stiffener, a new bio-based textile and bioactive, a display color changing textile fibers, a new weaving process to create mobile structures in the field of textile design, and silver textile and a new methodology eco-design of textile products which eventually could save up to 30% of water consumption!

#### 14 candidates representing 9 different nations

Since its inception in 2009, this textile Innovation Award has continued to gain notoriety in the scientific community. Today, 24 of the 30 largest textiles universities and textile research laboratories had their students and researchers compete in the Théophile Legrand Prize.

Of the sixty textile doctoral students in the world, 14 candidates (13 projects) competed in 2012. From France, Pakistan, Turkey, Romania, Mali, China, Tunisia, Kazakhstan and Hungary, these researchers represented the leading universities and engineering textiles schools (ENSAIT - GEMTEX Roubaix, University of Lyon 1, University and Ecole Nationale Supérieure de Mulhouse, Technical University of Dresden and of Niederrhein in Germany, University of Budapest, Hungary, University of Iasi in Romania, University of Gent in Belgium, Tianjin Polytechnic University in China, and Istanbul Technical University in Turkey).

#### First Prize of Textile Innovation 2012

#### Pierre-Alexandre Bourgeois (France)

The 30 year old holds a Ph.D. in Materials Chemistry from the University Claude Bernard Lyon 1/Research Institute for Catalysis and Environment of Lyon, in collaboration with the company Brochier Technologies - R & D Engineer Currently integrated laboratory "Corporate Research European Technical Centre Client 3M France "in Paris.

This engineer designed Photex: a new textile material for decontaminating photocatalytic application to the treatment of air or water. The invention allows the capturing

and retaining of pollution molecules. It changes color according to the density of the pollution in the air. This innovation is predicted to be central in public health discussions for years to come, especially in a world where we spend 90% of our time in enclosed environments (home, transportation, office...) surrounded by organic substances that can be harmful. Photex results helped convince a manufacturer to move towards the development of a pilot plant to test and provide professional textile decontamination. Other applications (such as water treatment) are currently under study.

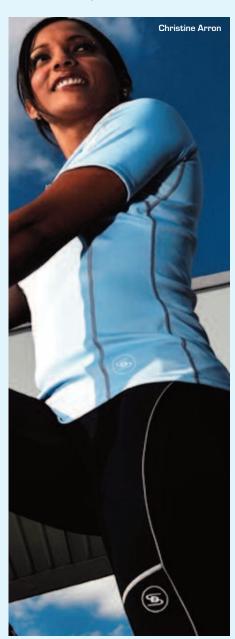
#### Second Prize for Textile Innovation 2012

#### Mohamed Bouraoui Kechiche (Tunisia)

The 26 year is a Ph.D. candidate in Mechanical Engineering from the University of Haute Alsace in Mulhouse LPMT laboratory. This researcher has developed composite filament that can be integrated into different types of textile structures capable of temperature changes and durability of the fabric. His research is supported by the University of Mulhouse and Professor

Jean-Yves Drean's laboratory, his 2012 recognition for Textile Innovation will undoubtedly prove the invention successfully in the transferability industry. This invention is on its way to receive a sponsored patent by the company Acceleration Technology Transfer SATT-Conectus Alsace. Several companies such as Faurecia Automotive Division and PIEZOTECH, manufacturer of fluoropolymers are interested in this invention.





## A textile that melts the temperature!

Athletes or those who work in conditions of intense heat will be the first to benefit from this new fabric. Gauthier Bedek said he had obtained this surprising result, "taking advantage of a physicochemical reaction by dissolution of a family of polysolys, xylitol, this new technology engineered a new xylitol microencapsulation technique using polyurethane. The process forms a semi-permeable membrane of polyurethane, which then will absorb the energy and heat at the onset of sweating." The textile causes a decline in immediate and constant temperature and prevents the user from experiencing an increase in humidity levels. This fabric has gained the reputation of being comfortable and non-hazardous. Damart, the patent owner, now guarantees it for life.

## From the 2010 Théophile Legrand Prize to DAMART marketing in 2013

The first smart bioactive textile also referred to as the "auto-refreshing" textile by **Gauthier Bedek**, winner of the 2010 International Théophile Legrand Textile Innovation Prize, will be released soon this year (May 10, 2013) under the name "Océalis" Damart. For the Théophile Legrand Foundation - Institut de France it is with great pride to honor this revolutionary invention in the world of textile. The 30 years old professor-researcher at Ecole des Hautes Etudes d'Ingénieur (HEI) (a top graduate school in Lille) has been formally recognized for his work with support from Damart, and Roubaix ENSAIT. This is an additional opportunity to confirm that the Théophile Legrand Textile Innovation Prize leads to palpable products! Also, several previous winners (such as Christelle Reti in 2009, Mohamed Abounaim in 2010, Pierre-Alexandre Bourgeois and Mohamed Bouraoui Kechiche in 2012) are in pre-industrialization phases of their inventions.

#### Surprising and revolutionary textile!

Gauthier Bedek conducted his research in the R & D laboratory and at Damart Gemtex Roubaix from 2008 to 2010. The jury and experts of the Théophile Legrand Innovation Textile Prize met on September 29, 2010 in Paris and deemed his project: "the most successful, the most original, the most innovative and surprising new textiles of tomorrow." Inventing a fabric to control one's thermal comfort in a hot environment or after physical exertion, Gauthier Bedek thoroughly impressed the entire panel of experts, described by some members of the jury as "revolutionary"! Since

obtaining his Textile Innovation award in 2010, Gauthier Bedek continued his research until 2012, notably to improve textiles' resistance to washing, as well as to prolong the immediate feeling of freshness. After three years of hard work carried out under the direction of **Michel Caillibotte**, head of R & D laboratory Damart, the results have been amazing! Damart production and marketing have the first ready-to-wear T-shirt and Men's Sports T-shirt that possess auto-refreshing qualities of Océalis. The first will be available in stores May 10, 2013.

#### T-shirt refreshing self-tested champion Christine Arron

Following a sustained physical activity or intense heat wave, nothing better than a self-cooling garment to wick away perspiration and quickly reduce body temperature. The secret of Océalis lies in the millions of microparticles embedded fibers that act as bubbles fresheners. They activate the fabric and making it "smart". Within these microparticles, an organic crystalline structure, protected by a microporous membrane reacts to body heat. By a change in its state, it triggers a cooling effect that's

natural and sustainable for a given length of time. The first bioactive 'self-refreshing' tee-shirt has been tested successfully by Christine Arron, European champion of the 100 meters and world champion in the  $4 \times 100$  meters relay. This new fabric reacts to body heat and restores three levels of freshness. The best part about these bioactive fibers is that they are resistant to friction and are unharmed by the household ware and tare of the washing machine.

#### Damart: at the heart of textile innovation for 60 Years!

Damart, a French company established in 1953 in Roubaix, northern France, specializes in a material called Thermolactyl, or "the first active thermal fiber." Damart is the market leader for senior's apparel. Its customers are loyal and multi-generational, with a target market of women of the age of 50 or older. Still in the hands of its founders, Damart is the only company of this size to distribute its collections of ready-towear clothing in stores, catalogs and available on their website. It is also the only textile company to date to guarantee its products for life. With its new brand "Damart Sport" and refreshing clothes line "Océalis," Damart plans to launch a new product line in 2013 geared towards young and active customers.

**Key figures 2013**: 444 M € turnover, 1900 employees, 80 sales outlets in France and 3 million customers.



### **RULES and REGULATIONS**

## The 2013 Théophile Legrand International Prize for Textile Innovation

## ARTICLE 1 AIMS AND OBJECTIVES

Following the establishment of the

Institut de France's Théophile

Legrand Foundation in 2007 by

Dominique and Christian Cambier, The Théophile Legrand International Prize for Textile Innovation has annually awarded two prizes for original contributions to textile innovation since 2009. The prize rewards two researchers or students demonstrating an ability to invent the 'textile of tomorrow', the original creation of fabrics and fibres or new ways of industrial textile production. Entrants are permitted to submit current work in progress. By shining light on technical or industrial creations, the aim of the prize is to facilitate and support innovations in the textile industry and research, capturing the spirit of imagination and competition. We define textile innovation as being that which corresponds to the creation and invention of a new product, a new application or a configuration or amendment to an already existing product, created using supple materials or advanced textiles. The product will open up markets and be of commercial value through responding appropriately to consumer and business needs as far as textile innovation and advancement is concerned. We define a 'supple material' as those materials possessing flexible properties which can be easily manipulated, can bend and fold without breaking.

An innovative textile design project can be submitted for consideration providing the entrant or team of researchers is able to prove that the project, product and the invention of newly used elements are their own work. Selection criteria are the same for inventors of new textile fabrics as well as those innovators of new processes of textile production. To this effect, all entrants are judged on their creativity, originality, innovation

to the field and the project's ability to be industrially reproduced.

#### **ARTICLE 2 - ORGANISATION**

The 2013 Prize is organised by the Théophile Legrand Foundation, Institute de France and its coordinator Paul Schuler with the notable support of: The Association of Universities for Textiles (AUTEX) -Europe/China/USA; The Union of Textile Industries (UIT); The Organisation of Technical textile Manufacturers of France and Belgium (CLUBTEX); The French Institute of Fasion (IFM) : The Pôle de compétitivité UP-Tex ; the Department of Texiltes, Gand University (Gent), Belgium; GEMTEX laboratories, Roubaix ; Duflot Industrie, Astirum EADS, Tenthorey, Prigest and the following National Colleges: The National College of Arts and Textiles, Roubaix; School of Enigineering, Lille; The Institute of Technology and Chemistry, Lyon; and the National College of Engineers, Sud Alsace as well as the eco-museum at Avesnois and the Association des Escapades Sambre-Avesnoises.

## ARTICLE 3 SELECTION CRITERIA

The following are **not eligible** for consideration: Winners of the 2012 Théophile Legrand Prize, members of the organisation committee, laboratories or organisations involved in or sitting on the judging panel.

## There are three stages to the process:

- Verification of a candidate's eligibility (undertaken by the co-ordinator of the 2013 competition) before July 31, 2013.
- 2. Selection of the winners by members of the judging panel and specialist panel on Thursday, in September 2013.
- 3. Validation of the two winners by the Foundation's Board of Directors before the end of september 2013.

Applications should be sent before July 31th 2013.
Application by e-mail to: theophile-legrand@hotmail.fr is compulsory.

Following submission, the co-ordinator of the 2013 Prize will send a confirmation of receipt notification by return e-mail.

All additional documentation that cannot be scanned (fabrics, prototypes etc.) must be posted to the following address:

Paul Schuler / Agence SP&C
Prix Théophile Legrand
B.P. 40 035
59612 Fourmies Cedex - France

## To be accepted for consideration candidates must meet the following criteria:

- This international competition is open to researchers, postgraduate researchers (PhDs) and Masters students.
- The idea / invention proposed must be feasible and able to be reproduced under realistic conditions. Its purpose and function must be recognised or easily identifiable.
- It is imperative that candidates maintain a high standard of submission of application both in the quality of images and in the formatting of documents (High Quality photographs, presentations etc).
- Entries can be from an individual candidate or a research team of researchers.

## Textile projects should meet the following criteria:

- Be original.
- Be innovative.
- Marketable

If a prototype exists, it must be presented at the prize-giving ceremony.

## ARTICLE 4 CANDIDATES' APPLICATION DOSSIER

Dossiers are to be submitted in French or English. The following information must be included in the bottom right hand corner of every page: Candidate's name / The name of the project / Théophile Legrand International Prize for Textile Innovation

Every application dossier must include the following documents :

- Cover letter.
- An extended CV of the candidate.
- The name of the invention put forward by the Candidate.
- Comprehensive list of all previously realised works and / or research projects (max. 5 pages).
- Photos, illustrations or videos illustrating the project.
- Contact details for all businesses or partners associated / affiliated with the development of the design and / or prototype.
- A letter of guarantee, certificate of authentication of the project signed by the laboratory manager / director.
- If applicable, a publication list detailing all publications of work / projects already completed (reports, articles, works etc.)

## ARTICLE 5 MAKE UP OF JUDGING PANEL

Winners are decided by a jury made up of representatives of the Théophile Legrand Foundation, Institut de France, the person in charge of the organisation of the prize, associates of the Foundation and research experts and specialists from the Textile industry.

## ARTICLE 6 JUDGES' DECISION

Participation in this international competition confirms an understanding and acceptance of the current terms and conditions as well as acceptance of the Jury's selection criteria as outlined in Article 2.

The selection committee will be meeting in September 2013 in Paris.

The decisions of the Jury are subject to the approval of the Foundation's Board of Directors, presided over by Gabriel de Brogile, Chancellor of the Institut de France.

The Board of Directors will convene before the end of September 2013. The decision of the Board, Judges and experts is final and the board is not obliged to justify their decision.

The two winners will be announced in writing 48 hours after the deliberation and will be transferred to candidates and partners of the 2013 Prize for textile innovation.

## ARTICLE 7 TOTAL VALUE OF PRIZES

1<sup>st</sup> Prize : 10 000 Euros. 2<sup>nd</sup> Prize : 8 000 Euros.

Prize winners are free to use the prize money as they see fit on the understanding that it will promote and advance their project.

Prize winners must clearly display the following attribution on all communication linked to their project for a minimum of two years: « Lauréat de la Fondation Théophile Legrand – Institut de France »

## ARTICLE 8 PRESENTATION OF PRIZES

The 2013 award ceremony will take place on Sunday, october 5th at 4:00 PM, at the "Station Touristique du ValJoly – Eppe Sauvage" (France – Nord / 59). Prize winners will commit to being present for the ceremony and receipt of the prize where they must showcase a multimedia presentation of their project.

## ARTICLE 9 COMMUNICATION THE MEDIA AND DISTRIBUTION OF INFORMATION

Candidates take full responsibility for the accuracy of all information provided through the course of their project and the work they produce and may be subject to a demand of justification by members of the judging panel. Candidates must declare that they are the authors and owners of the work. The Foundation reserve the right to engage in media

coverage of the prize, particularly through the press.

Candidates will give permission in advance for the Fondation Théophile Legrand – Institut de France to use their name and to publically present their projects, using whatever means the Foundation sees appropriate including public exhibitions and promotional information in relation to the prize, excluding the additional future opportunities and subsequent rights of the prize winner resulting from the prize award as detailed in article 7.

For the purposes of the competition, candidates waive all copyright of, and agree to the distribution of, any photographs and videos taken at the award ceremony. Winners agree in advance to the Fondation Théophile Legrand – Institut de France reporting on the projects as detailed in their application dossier.

That said, candidates must expressly inform the Foundation of any documents or information that they want to remain confidential. The organisers accept no responsibility for any claims made by a third party.

#### **ARTICLE 10 - CONFIDENTIALITY**

All content of all documentation received by the candidate as well as discussions pertaining to the decision making of the judging panel will remain strictly confidential.

The judging panel together with any person who has come into contact with any information pertaining to the candidate's project will treat the information in the strictest of confidences particularly as far as the specific detailing and content of the project is concerned.

All members of the judging panel will sign a confidentiality clause.

## ARTICLE 11 INTELLECTUAL PROPERTY RIGHTS

Candidates remain the sole owners of any project entered for consideration in this competition. Ultimate responsibility concerning the protection of their projects remains with the candidate. Candidates will ensure

that they take all appropriate action to protect the intellectual property of the work they submit to the competition. The Foundation will accept no responsibility in the event of any loss of intellectual property in relation to a candidate's project / innovation.

Intellectual property rights pertaining to the creation, concept or inventions included in the application dossier remains the exclusive property of the candidates. The judging panel and competition organises will not be held responsible for any publication of a candidate's protected work by a third party or by the candidate.

Candidates solemnly swear to be the owners of the copyrights attached to their projects and will be able to demonstrate these rights to the organisers of the Théophile Legrand International Prize for Textile innovation in the event that these rights are brought into question at any stage of the competition.

### ARTICLE 12 LOGISTICS

The coordinator of the competition will take full responsibility for the travel and hotel expenses of the two prize winners of the 2013 Théophile Legrand International Prize for Textile innovation. Prize winners and a guest of their choice will have free entry to the event.

### ARTICLE 13 LEGAL OBLIGATION

Protection of personal information: all participants are advised that all personal information provided is correct and is necessary for successful entry to the competition. Participants should be aware that any information provided will be checked and verified by the competition organisers.

As stipulated in Article 27 of the Freedom of Information Act (No. 78-17 – January 6th 1978), participants have the right to access and correction of any personal information in writing to the co-ordinator of the Théophile Legrand International Prize for Textile Innovation.

A full copy of all rules and regulations

pertaining to the competition is housed at the Institut de France in Paris. These rules and regulations are available in full from the coordinator of the Prize and of the Institut de France, or by visiting the Foundation's website at:

www.theophilelegrand.com or the Théophile Legrand Prize's blog at : www.prixtheophilelegrand.com.

The current competition is accepted fully compliant with French law.

## ARTICLE 14 MODIFICATION AND CANCELLATION

The organisers reserve the right to modify or cancel the 2013 Prize due to unforeseen circumstances or as a result of circumstances external to the Prize and beyond its control without prior notice.

Organisers will not be held responsible for the loss of any information via post or in email, problems in getting information / dossiers to the Foundation or any lapses on the candidate's part that would prevent them taking part or that would necessarily limit their participation (such as, for example, internet failure, messaging failure, social networking failures).

## ARTICLE 15 CANDIDATE'S RESPONSIBILITY

All candidates accept and agree to abide by all of the above terms and conditions.

#### **INFORMATIONS / CONTACTS:**

#### Paul Schuler,

Coordinator of the 2013 Théophile Legrand International Prize for Textile Innovation

#### Phone:

+ 33 (0)6 62 85 60 11 or + 33 (0)3 27 60 73 96

#### E-mail:

theophile-legrand@hotmail.fr

#### Postal Address:

Paul Schuler / Agence SP&C - Prix Théophile Legrand - B.P. 40 035 -59 612 Fourmies Cedex- France

#### Louis de Genouillac,

Institut de France

#### Phone:

+ 33 (0)1 44 41 44 20

#### E-mail:

l.degenouillac@institut-de-france.fr

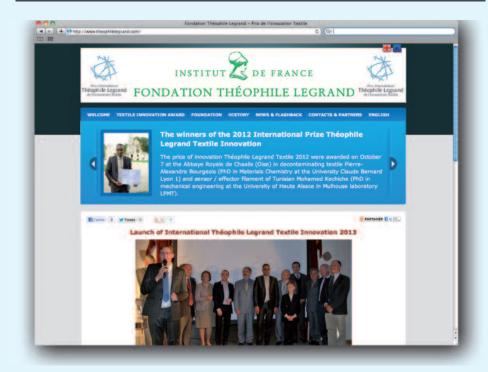
#### Postal Address:

Les Fondations de l'Institut de France – 23 quai Conti – 75 270 Paris Cedex 06 - France

#### Website:

www.institut-de-france.fr

#### Website : v.theophilelegrand.com



### Milestones in the Théophile Legrand Saga

#### March 8, 1799

Birth of Louis Théophile Legrand in Fourmies. He is the descendant of a local lace and cotton manufacturing company that has been in business since the eighteenth century.

#### 1806, 1807 et 1808

Théophile Legrand suffers the death of the mother, then younger brother and finally his younger sister.

#### 1810

Théophile Legrand's father, Louis-Joseph Legrand, constructs a special-spinning cotton mill.

#### November 11, 1819

Théophile Legrand marries Helen Josephine Labilherie in Puy en Velay, with whom he had six children. For 5 years, he serves as the head of his stepfather's business, who died a year earlier.

#### **April 1825**

Théophile Legrand creates the first wool mill in downtown Fourmies, a city that the time had only 2000 inhabitants.

#### October 1825

Théophile Legrand furnished the factory with "fire pumps" (the first steam engines).

#### From 1830 to 1860

He improves the degreasing wool system making it less painful for workers. He opens degreasing units in the communes of Liessies [59] and Anor [59] where the water was more abundant. Legrand begins to transform wool with the creation of a spinning and weaving structures in Wignehies [59].

#### From 1838 to 1848

Serves as District Counselor of Avesnessur-Helpe.

#### 1841

The *Théophile Legrand* castle is constructed in the neighborhood of Marlière in Fourmies.

#### From 1843 to 1877

Serves as Counselor of Fourmies. Although easily winning his run for election, he never takes up the post of Mayor. His cousins Pierre Joseph and César Auguste Legrand serve as Mayor.

#### 1848

He is appointed to serve as Commander of the National Guard.

#### From 1848 to 1852

He serves as General Counsel of North Canton Trélon, he builds roads that finally connect Fourmies to the nearby municipalities.

#### 1855

He is awarded the First Class medal and receives worldwide recognition at the Universal Exhibition in Paris for its fine worsted wool. [+the 1862 and 1867 at Universal Exhibition]



The Malakoff Factory is built. This mill was considered the most important mill in Fourmies until the late 1960s and accounted for close to 700 employees.

1856

#### February 17, 1857

A major fire burns the first spinning.

#### 1858

The creation of Mutual Relief is formed and takes effect in 1865 with the support of his friend and spinner Edouard Flament, the future Mayor of Fourmies.

#### 1858/1859

Théophile Legrand equips his Malakoff Factory with semi-automatic winder and a traditional winder. He adds a weaving mechanism that increases production by improving quality. He expands his weaving production to the Cambrésis region.

#### July 1860

Serves as an expert consultant for the commission on Agriculture, Trade and Industry as part of the renegotiation of the treaty of commerce with England.

#### 1863

Now employs 1,700 workers. He turns his weaving factories of Fourmies over to his sons. He buys a small hand weaving machine in Glageon [59] and turns it into a great mill, adding mechanical weaving.

#### February 23, 1864

There is a steam engine explosion in the Malakoff plant in Fourmies with 2 found dead and 4 wounded.

#### 1865

Théophile Legrand's youngest son, Paul, dies.

#### July 1867

Emperor Napoleon III presents Théophile Legrand with the insignia of Chevalier of the Legion d'Honneur. This award recognizes both Legrand contributions to the industry, as well as his generous efforts that greatly help to the city transformation.

#### 1869

The first railway connection reaches Fourmies (Line Calais-Lille / Strasbourg). With Legrand's influence and pressure, Fourmies is now connected to the rest of the major business hubs in France.

#### 1874

Creation of the Trade Commission for the woolen industry of the region Fourmies.

#### May 31, 1877

Théophile Legrand dies. He bequeathed to the poor of the city a perpetual endowment. The newspaper "Le Journal de Fourmies" names him "Father of the People."

## The beginnings of the textile industry: From lace thread in 1774 to Théophile Legrand

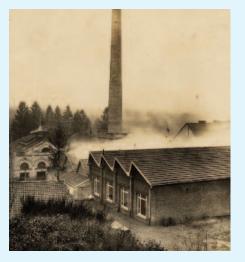
Established in the Nord-Pas-de-Calais since the thirteenth century, the textile industry has forever marked the collective memory of the region of Fourmies, mainly oriented towards an industry of spinning and wool weaving.

The region proved optimal for such textile development due to the favorable natural conditions (forests and ponds that offer moisture suitable for spinning extremely fine threads), the textile factories produce fine fabrics for apparel, and additionally specializing in the manufacture of blankets and flannels.

#### The beginnings of the "Legrand" saga

The textile industry starts in Fourmies in the mid-eighteenth century with the development of the first lace factories built up by Legrand family. In 1774, the first flax mill "devious and laundered" in the manner of Holland was created by Jean Staincg and Nicolas Legrand (cousin of Théophile

Legrand's grandfather). Nicolas Legrand fights the Dutch monopoly over the manufacture of lace. It was not until 1805 that the first factory to be built knit cotton. 1810 sees the opening of the first cotton mill, nicknamed "The Old". Joseph Louis Legrand is the founder.



## The first worsted spinning...

Théophile Legrand is the son of Joseph Louis Legrand, who built the first worsted spinning mill in Fourmies in 1825.

In October of the same year, the worsted industry replaces cotton milling, utilizing steam. The initial startup was difficult because this new industry was virtually unknown. Two other wool mills spring up imitating Legrand's innovation: one in Le Cateau and the second in Bazancourt near Reims. The cotton mills in Lille import the first fire pumps from England.

Many leaders of the textile industry located in Roubaix will follow Legrand's example by modernizing their factories between 1830 and 1840.

#### 1869 : a great year !

Thanks to its exceptional moisture of the region, to the arrival of the railway in 1869 [the line of Calais/Strasbourg] and its position ideally located between the North and East and between Brussels and Paris, the wool industry in Fourmies experienced an impressive growth in 1869!

However, the loss of the German market in 1870 would have serious consequences and slowed temporarily this tremendous prosperity.

Around 1890, Fourmies and the surrounding municipalities would form the first region in France and in the world for the production of combed wool, revitalizing the area of Roubaix. At that time it accounted for 600 combers, 250,000 spinning spindles and 16,000 looms over a radius of 60 km around Fourmies, or 30% of the domestic production of all wool.

#### Fourmies: a global center for wool production

With few machines, no technicians, no engineers, geographical isolation and a city devoid of roads and waterways...

At the middle of the 19th century Fourmies was an inaccessible area of the world. Théophile Legrand's tenacity and perseverance coupled with a good dose of genius would overcome these difficulties. Staying consistently abreast of the current technological advances, Théophile Legrand continuously improved the industrial processes. Soon, other entrepreneurs began to settle down in Fourmies,

attracted to the great success of Legrand. These entrepreneurs would eventually control the entire production chain from sheep's wool to finished products (with combing, dyeing and weaving techniques). During this time, the textile industry was thriving which in turn enabled a gradual growth of the city. In 1840, 6 factories were already operating in Fourmies, and by 1866 there were 49, and only 3 years later in 1869 there would be an outstanding number of 76 factories functioning in the city.



#### Fourmies and Roubaix: world wool capitals until 1914

In 1910, the production of worsted wool in Fourmies and the surrounding region accounted for 47% of national production, 23 million kilos of wool.

That year the region won the title of National Capital and World Capital of

worsted wool beating for the first time out the region of Roubaix. Several contemporary documents confirm that it is in Fourmies where the finest wool thread in the world has been made with over 120 kilometers of threads per kilo!

## From the crisis of the twentieth century to the twenty-first century innovative textiles...

#### 1911 - 1914: the first difficulties

Since 1891, sales have grown steadily but also have the difficulties faced with such a successful enterprise. Between 1911 and 1914, 15 combing factories ended up closing, placing the blame primarily on the region of Roubaix ... Just before World War I, industrials from Roubaix bought many plants in Fourmies, and Fourmisiens workers became subcontractors of Roubaix.

# The Théophile Legrand Castle (1900)

#### The painful aftermath of war...

World War I (1914-1918) forces Fourmies to lose its leading position nationally and internationally in the field of spinning worsted wool. With the German occupation, 88% of the industrial potential is destroyed or moved to Germany. Companies later seek solutions in the face of this economical crisis. In 1919, the League of Spinners for the region of Fourmies, a union of 25 organizations pool their war damage together in efforts to aid each others losses.

The 1929 Global Economic Crisis along with World War II would continue to effect industrial production and company growth of the region, the aftermath would be difficult to overcome in Fourmies. Unfortunately, another economic crisis in 1950 exacerbates economic decline of the region, causing many plants to close until the early 1990s. To this day one spinning plant remains in Fourmies and one in Avesnelles and a single technical textile factory in Trélon...



## The painful aftermath of war...

In 1918, Roubaix is also experiencing major difficulties. All stocks, all tools and many men have disappeared. The 1929 Global Economic Crisis, along with the worker's strikes from 1931-1932 and the Second World War, cause major loss ... In the 1970s, the difficulties will still accumulate and competition from Third World countries will be fatal for the production of wool. Lainière de Roubaix (more than ten thousand people in 1970) finally closes in the early 2000's.

#### And today?

There are still some wool production companies based in Roubaix that have been now focusing on the the sale of clothing (La Redoute, 3 Suisses, Camaïeu, Damart, La Blanche Porte.) Phildar continues to produce wool in Turkey and Asia ... keeping its headquarters in Roubaix. The Nord-Pas-de-Calais region remains a major textile producer in France and Europe, for example in 2013, the textile industry still employs more than 15,000 people in the Nord Pas-de-Calais. In France, the textile indus-

riences a 25 billion Euros revenue, thanks to a textile called "technical." Traditional woolen mills gave way to factories of technical, smart textiles. Applications and opportunities involving the evolution of textiles are numerous in the areas of health, aviation, railway, construction and recreation. Some even are discussing the possibility of a textile that may ultimately produce electricity to recharge phone batteries, tablets, and computers...

try employs 70,000 people and expe-



#### Opening of the European Center for Innovative Textiles (CETI)

In October 2012, the Textile professionals, colleges and the most prevalent textile laboratories in Europe opened the European Centre for Innovative Textiles (CETI) in Roubaix-Tourcoing. This property specializes in weaving and knitting technologies. Eventually, it hopes to form and bring together a community of intelligent and forward thinking textiles. This will make a unique CETI world. With a total area of 15,000 m2, the CETI consists of workshops, laboratories and offices, to enable SMEs and large European groups, to research and prototyping.



## La Station Touristique du ValJoly (59) accueille le Prix Théophile Legrand 2013

The Resort ValJoly (59) hosts the 2013 Théophile Legrand Prize Ceremony



Après le musée du textile à Fourmies (59) en 2009, l'ENSAIT à Roubaix (59) en 2010, le Bol Vert à Trélon (59) en 2011 et l'Abbaye Royale de Chaalis (60 - propriété de l'Institut de France) en 2012, le Prix Théophile Legrand est de retour dans le Nord en 2013. Les deux Prix seront remis au Centre des Conférences de la Station Touristique du ValJoly, à 20 kilomètres de Fourmies et à 3 kilomètres de Liessies où Théophile Legrand possédait un tissage et une unité de dégraissage de la laine.

Située dans un cadre naturel exceptionnel, au cœur du Parc Naturel Régional de l'Avesnois, la station touristique du ValJoly a été construite au bord du plus grand lac du Nord de la France (180 hectares), à l'orée de 6 000 hectares de forêt. Logé dans un cottage avec vue sur le lac, au camping ou dans l'un des chalets, on trouve au ValJoly un maximum d'activités pour s'amuser et se détendre. Base nautique, centre aquatique, centre de bien-être, location de VTT, centre équestre, parcours d'aventure dans les arbres, loisirs créatifs, restaurants ou boutiques... sont à disposition pour vivre des aventures inoubliables, en famille ou entre amis.

After being hosted by the Textile Museum in Fourmies [59] in 2009, then by ENSAIT of Roubaix [59] in 2010, Bol Vert Trélon [59] in 2011 took the reigns and the Royal Abbey of Chaalis [60 - Property of the Institut de France] followed in 2012. For the 2013 award presentation the Théophile Legrand Prize will head back to its native North region. Both awards will be presented at the Conference Centre of ValJoly, 20 kilometers from Fourmies and 3 kilometers from Liessies where Théophile Legrand began his weaving and degreasing wool legacy.

Located in the heart of the Regional Natural Park of Avesnois, ValJoly was built on the banks of the largest lake in northern of France [180 hectares]. Its situation on the edge of a forest comprised of 6000 hectares makes it a spectacular natural wonder. ValJoly provideing cottage and chalet stays overlooking the lake, offering a variety of leisure activities such as water sports, horse riding, bike riding, creative activities, adventure in the trees, as well as access to an aquatic center, a wellness center, restaurants and shops... This is an optimal place to form unforgettable adventures for family or friends.

#### Le sud du Nord : pays de la laine fine peignée

Délicatement vallonné, ciselé par des cours d'eau et par des étangs séculaires, finement drapé de prairies bocagères et de forêts à perte de vue, le pays de Fourmies et du ValJoly est un savoureux mélange de paysages préservés et authentiques, à découvrir et à vivre intensément! lci et là, on est surpris par sa gastronomie délicieusement relevée au Maroilles ou par un village typique, une campagne pittoresque, la quiétude d'un lieu ou d'un monastère, le vestige d'une cheminée de filature transformée en musée, des églises fortifiées, l'originalité et le partage des savoir-faire...

The southern region of the North country known for fine wool worsted

The land of Fourmies and ValJoly is a blend of preserved and authentic landscapes consisting of rivers and earthly ponds that carve out spaces among the gentle rolling greens and the finely draped hedgerow meadows and forests.

The region is home to the famous Maroilles cheese, and presents a picturesque village countryside where tourists can enjoy the tranquility of a place or a monastery, the remains of a fire spinning transformed into a museum or fortified churches, a unique sense of originality and a sharing of know-how...



#### La folie du Tricot Solidaire au XXIº siècle !

Même si la laine n'est plus produite qu'en très faible quantité, la passion du tricot a pris le dessus depuis quelques années! Après avoir réalisé entre 2009 et 2012 l'écharpe la plus impressionnante au monde (plus de 70 km de longueur pour un poids estimé à 10,5 tonnes de laine), les tricoteuses solidaires poursuivent aujourd'hui la tradition de la laine et renouvellent cette incroyable histoire de passion entre la région de Fourmies et le textile, dont la famille de Théophile Legrand est à l'origine dès 1774... A ce jour, plus de 3000 créations en laine ont été fabriquées dans le cadre du challenge fourmisien « le Tricot Solidaire ». Elles ont été vendues au profit d'œuvres caritatives. La Fondation Théophile Legrand est partenaire de ce challenge.



The new craziness in the XXI century of the Tricot Solidaire!

Knitting has taken off in the last few years, even if the wool production has been down. Between 2009 and 2012, the most impressive scarf in the world stretching more than 70 km and weighing at around 10.5 tons of wool was created. Today, knitters solidarity continues to uphold the wool tradition and renew this incredible story of passion between the region of Fourmies and textiles, a region developed by the Legrand's family since 1774... To date, more than 3000 wool designs have been produced because of The Knitting Solidarity group.

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