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GLOBAL REGULATORY
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CONNECT

LEAD STORY

The Future of Pharma Regulations

What's Inside?

Regulatory Stories

Freyr 360°

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FOREWORD

Hello Everyone,

Welcome to another episode of Freyr Connect!!!

A very happy new year to you all! Right at the dawn of exhilarating 2017, we present you yet another well-curated edition of Freyr Connect, and extend our heartfelt greetings for your unwavering support throughout 2016. It's quite commendable how the Regulatory industry, effectively tackled new challenges, and constantly set up new goals to meet. Now that we're a few days into the new year, it's good to look ahead and think about what the future may bring us. But first, a quick look back.

It has become a customary trend to be lauded with exemplary recognitions every quarter and this one was no exception. Freyr was ranked 11th among the top 50 fastest growing technology companies in India at the 12th edition of Deloitte Technology Fast 50 India Program. Not only does this recognition acknowledge the consistent hard work of our team but is also a thriving testimony of our ability as an organization whose primary motto is to deliver excellence in all the life sciences Regulatory aspects.

What's there inside this time? Here's a quick sneak peek. We'll take you through the diverse and challenging future of Pharma regulations in terms of what's there around the corner in 2017 followed by a consolidated overview of what 2016 had in store in terms of pharma regulatory guidelines. Besides that, this edition will also give you an opportunity to go through an exciting amalgamation of fun and business at Freyr. We bet you can't skip the Festronix section.

Last but not the least, here we thank everyone who diligently contributed to this edition of Freyr Connect. Soak in all the pleasure of reading through the insightful edition. Grab your copy right away.

Happy reading!

Rajiv Rangan
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THE FUTURE OF PHARMA REGULATIONS

Brace up for the Integrated Transformation

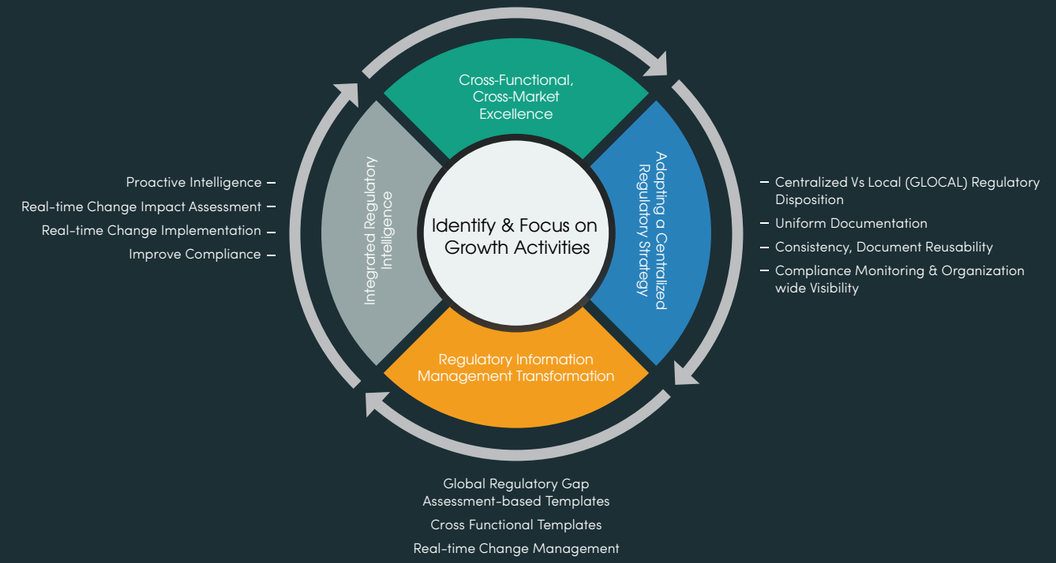
The future of pharma regulations is challenging with diverse, and time-critical regulations globally. While on one end there is a lack of harmonized regulations worldwide, the comprehensive traceability framework tightens the regulations for the pharma industry on the other end. It will be challenging for industry to adapt to regulated and semi-regulated markets alike while attempting to develop a harmonized strategy with ever growing cost pressure on off-patent products for both small molecules and biologics. Differentiating new and legacy products with established safety profile and evolving a new compliance paradigm that shifts from traditional methods to a new, global, intelligence-driven regulatory compliance structure along with a judicial mix of centralized and localized regulatory teams is the key to reducing cost burden and achieve global compliance in a timely manner.

Navigating through Diverse and challenging Global Regulations

The Pharma industry at large is faced with challenges due to fast changing global regulations and with many countries moving towards adopting a tighter control over drugs. The patent cliff has pushed the industry to maximize their revenue from the existing portfolio in past few years and thus resulted in expanding their market in emerging markets. This thought process, however, is not limited to off-patent or soon to be off-patent drugs, but companies with the products under development are also adopting a global strategy for trials either to address niche therapeutic indications or maximize their drug's commercial potential. Both the scenarios pose a common challenge of understanding, assessing and implementing a global regulatory strategy in a timely manner.

While global ICH guidelines and countries moving towards CTD/eCTD format offer a way of harmonized regulatory strategy to these markets, regional regulatory complexities largely continue to pose a challenge and despite certain commonalities, each country is handled individually, impacting the subsequent timelines and cost of compliance significantly. The region-specific challenges span across the local GMP requirements (as not all the countries follow a lead country model), semi-regulated, unstandardized documentation, multi-agency interactions, requirement of intensive health authority interactions, language nuances, export and import licenses, need for local applicants or representation, regulations on biological samples, and ICF requirements, to name a few.

External, Ever Changing, Non-Uniform Regulatory Environment



Adopting a Centralized Regulatory Strategy

It will be ideal if global markets could adapt to harmonized regulatory standards and procedures, however, it is unlikely to happen anytime sooner, for socioeconomic and political factors that play a key role in countries' applied regulatory frameworks. Nevertheless, the industry is diligently identifying areas across the regulatory value chain that can potentially be centralized and harmonized to achieve compliance faster using cost-effective methodologies. Pharma companies are increasingly investing in global regulatory strategies using a two-pronged approach, including a comparative assessment of global regulations and formulating template-based strategies to address the regulatory gaps across markets while also integrating technology-enabled intelligence frameworks to tap on potential changes in regulations in these markets that can impact existing procedures and thus the regulatory strategies at large. The ever-increasing pressure with R&D costs will lead to the evolution of new business models where traditional ways of regulatory aspect of global clinical trials will shift from localized/nationalized to a combination of a centralized and localized model. The model already exists for regulatory operational functions such as publishing, labeling, and artwork. However, this approach will expand to regulatory affairs functions such as dossier preparation and chemistry, manufacturing and control (CMC) functions that are traditionally supported locally.

Regulatory Information Management Transformation

The way forward for pharma industry will be to bring efficiency and boost productivity through comprehensive global regulatory information management and achieve compliance in a timely manner by reducing costs. Over past few years industry has been seeking transformation in regulatory information strategies and solutions across the value chain i.e., regulatory data management as per the HA standards (XEVMPD, IDMP, and UDI), submissions planning, dossier management, product registrations, label management, submissions management, HA interactions and product lifecycle management among others. It will take another few years for companies to have implemented validated systems for end-to-end regulatory information management. However, this strategy is key for centralization of key regulatory activities focusing on core portfolio to enable better control and ensure key challenges are addressed.

The challenges include compliance monitoring and business risk management, inconsistency across markets impacting brand image, non-traceability of information, slower response to changes in regulations, ineffective approval process, non-uniform versions of documents, undefined turnaround time, quality metrics and focus on reusability of documents.

Integrated Regulatory Intelligence

Existing regulatory frameworks within the Pharma companies today are often fragmented, except few centralized functions, with diverse products and markets and respective product and market representatives. Cross-functional teams located in different regions often slow down the information exchange process and further change assessment and implementation. Hence, the industry is realizing the potential of agile solutions and strategies that can enable faster change assessment and implementation. Current processes and vendor landscape allow less flexibility to innovate, thus offering greater opportunities for aggressive processes, frameworks, technology solutions to evolve. As these challenges become part of major discussions, industry will look towards solutions that change the current landscape. An effectively integrated intelligence-driven regulatory framework will be one of the key elements possibly to drive the change with desired flexibility complimented by flexible and scalable technology solutions. An integrated regulatory intelligence system not only will provide access to global regulations, but such systems can also provide a real-time notification of changes in global regulations that can potentially impact organizations' regulatory strategies, regulatory processes, and even operational frameworks. Collaborative models where the system-enabled teams can assess the impact and implement the change efficiently can save huge cost for organizations while ensuring compliance.

Identify and Focus on Growth Functions

Increasing cost pressure, reducing margins, and growing competition including that from counterfeit products, pose significant operational challenges for regulatory teams. While regulatory professionals in different regions spend about 60-70% of their time in life cycle maintenance activities against 30-40% on growth activities (where growth activities include those supporting innovation, R&D, new product rollouts, market expansion etc.), the organization focus is diluted leading to reduced growth rate and shareholders value. It will be imperative for organizations to identify and clearly differentiate these activities and implement alternative models that can centralize the non-growth operational activities (often routine and scripted) for legacy products versus growth activities driven by innovation. Centralization of such operations not only bring efficiency, and consistency across documents and document types, but also reduce the costs significantly if combined with low-cost operations and delivery centers. During past couple of years organizations have invested increasingly on assessing their regulatory organization landscape for assessing the opportunities that can impact their bottom-line and realign their focus towards boosting the top-line through innovation. This trend will continue and will potentially give rise to a combination of models, integrating global, centralized, uniform, process driven, and fast-paced low-cost models to address the margin gap. The industry is also trying to implement those models for R&D programs to reduce the cost of development programs across regions.

Cross-Functional, Cross-Market Excellence

The supply chain of pharma continues to grow globally, posing greater challenges to track compliance. While leading agencies like the Food and Drug Administration (FDA) is working with regional authorities to distribute the sheer number of registrations assessments and audits, pharma companies will have to soon align with comprehensive data management and traceability of drug products to ensure they manage their global registrations in a timely manner. Guidelines such as UDI for devices and IDMP for drugs in the USA and Europe respectively designed to ensure medicinal products and devices can be traced and can be held accountable for any adverse event. This also aims at addressing the challenges from counterfeit products that are increasingly gaining market share in the multi-billion dollar industry worldwide. This requires smarter tracking systems and cross-functional, cross-market integrated applications to ensure uniformity across the board and global compliance monitoring. Global registrations management traditionally has been handled in silos. The entire ecosystem including the pharma companies and vendors are evolving towards an end-to-end submissions management structure where there is a visibility across the board on the current status of documents and document components, submission timelines, deviations across countries and proactive measures, driven by real-time intelligence. This means cross functional stakeholders will have to work using centralized systems as well as work closely with stakeholders and regional market representatives to maintain the uniformity.

To summarize, it is unlikely in near future to have harmonized global regulations on medicinal products and devices alike. The country-specific socioeconomic and political situations might pose challenges in managing different documentation standards for a product across markets, managing submissions timelines, quality and compliance and further gaining visibility of overall status. An all-round regulatory affairs and operations management strategy, driven by regulatory intelligence, coupled with significant transformational technology intervention for information management is a way forward to address the regulatory needs of the pharma industry.

(This article also appeared in Pharma Focus Asia, a quarterly publication from Ochre Media Pvt. Ltd)

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ORPHAN DRUG DESIGNATION - DECODE THE EU PERSPECTIVE

In the current scenario with stringent regulatory requirements and guidelines, competitive market conditions, patent expiries, the growth of pharma industries is expected to slow down. The exclusivity of many blockbuster drugs will be lost in coming years. With that being anticipated, the focus of pharma companies is slowly shifting towards a new business model called Orphan Drug Designation which is expected to clear the revenue gaps caused by patent expiries. Orphan Drugs open up whole new opportunities to develop new areas of diagnosis, treatment and therapeutics. Alongside various government incentives provided for drug development, support from the regulatory agencies in special protocols could be a key factor for Pharma industry's increased interest towards Orphan Drugs. With many regulatory challenges ahead, we propose the pharma companies to get inside out of Orphan Drugs at the very outset with respect to EU.

Rare Disease and Orphan Drug

Committee for Orphan Medicinal Products (COMP) of the European Medicines Agency is responsible for reviewing designation applications from individuals or Sponsors (Organizations) who desire to develop medicines for rare diseases referred as 'orphan medicines'. Any disease that affects a small percentage of the population is called as a 'Rare Disease', synonymously as 'Orphan Disease'. The Agency helps the sponsors to develop orphan designation applications via free pre- submission meetings. The Agency also renders advice on the development of orphan medicinal products after designation (protocol assistance).

'Orphan' medicinal products are intended for diagnosing, preventing or treating life-threatening or very serious conditions that are rare and affect not more than 5 in 10,000 persons in the European Union (EU). Pharmaceutical companies are hesitant to develop such medicinal products under usual market conditions, as the expenses of bringing them to market would not be regained by the expected sales of the products without incentives.

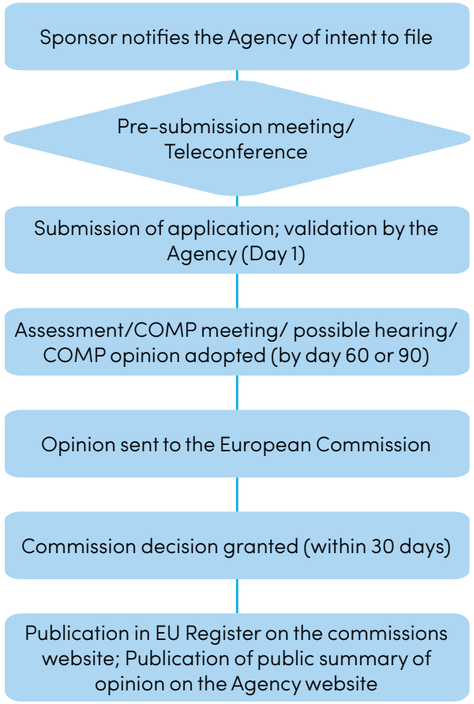
a) Orphan Drug Designation

The criteria for Orphan Drug designation is based on Regulation (EC) No 141/2000. Orphan Drug Designation may be obtained at any stage of development before an application for marketing authorisation is proposed, however proper scientific justification of the intended use should be submitted. Designation is free of charge. The designation as an orphan medicinal product does not indicate that the Drug has already satisfied the safety, efficacy and quality criteria necessary for the approval of a marketing authorisation. Just like any other medicine, these criteria can only be assessed once the application for marketing authorisation has been submitted.

To get qualified as an 'orphan drug', a Drug must meet the following criteria:

- It must be intended for the treatment, prevention or diagnosis of a disease that is life-threatening or chronically debilitating.
- No satisfactory method of diagnosis, prevention or treatment of the condition concerned can be authorised, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.
- The prevalence of the condition in the EU must not be more than 5 in 10,000 or it must be unlikely that marketing of the medicine would trigger sufficient returns to justify the investment needed for its development.

Procedure for Orphan Drug Designation



b) Sponsor Benefits with Orphan Drug Designation

The legislation of the EU provides incentives for sponsors/ pharmaceutical industry to develop orphan medicinal products. To be eligible for incentives, products should be designated through the procedure for orphan designation.

Sponsors who obtain orphan drug designation benefit from various incentives such as:

- **Incentives and Fee Reduction:** Reduced fees, access to centralisedprocedure,protectionfrommarketcompetition once the medicine is authorised, incentives in member states, a special fund from the European Commission and reduction of fees for various centralized activities will be offered. Besides, additional fee reductions apply for small and medium-sized enterprises (SMEs).
- **Market Exclusivity:** Orphan medicinal products benefit from market exclusivity in the EU for 10 years after granting the approval for sale (marketing authorisation). During that respective period, similar competitive products cannot be introduced directly into the market.
- **Protocol Assistance:** The Agency would render scientific advice to optimise development and guidance on preparing a dossier that will meet European regulatory requirements. This assists the applicants to maximise chances of their marketing authorisation application being successful.
- **EU-Funded Research:** Sponsors developing orphan medicinal products may be eligible for grants from EU and member state programmes and initiatives supporting research and development, including the Commission's framework programme.

It is important that pharmaceutical industry/ sponsors refer to the relevant scientific guidelines when planning to develop a medicinal product. Pharmaceutical industry/sponsors must submit an annual report to the Agency depicting the status of development of the medicine. Marketing authorisation applications for designated orphan medicines are evaluated by the Committee for Medicinal Products for Human Use (CHMP). Pharmaceutical industry/sponsors also need to file an application for maintenance of the orphan designation to be eligible for the 10-year market exclusivity incentive. Moreover, sponsors may also need to submit an evaluation of orphan similarity.

In Conclusion

The Orphan Drug Designation criteria is met only when the drug is intended for the treatment, prevention or diagnosis of a disease that is life threatening or chronically debilitating, the medicine must be of significant benefit to those affected by the condition and the prevalence of the condition in the EU must not be more than 5 in 10,000.

The introduction of the concept of Orphan Drugs is a definite boon for the patients who suffer from rare diseases. The Orphan Drug legislation in the European Union has been very instrumental in enabling patients suffering from rare diseases to receive treatments that would otherwise never have been developed. In the European Union, since the period 2000-2015, 114 drugs have been granted as Orphan Drugs.

Apart from offering additional benefits such as protocol assistance with development of the medicine, reduced fees, access to centralised procedure, protection from market competition once the medicine is authorised, incentives for micro, small and medium-sized enterprises (SMEs), grants, incentives in member states, there are now additional regulatory pathways which will help to expedite the development and approval of Orphan Drugs.

References:

1. Orphan Designation. European Medicines Agency. available at http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general_content_000029.jsp. Accessed on 30 Nov. 2016.
2. Rare Disease. What is a rare disease? available at http://www.eurordis.org/content/what-rare-disease. Accessed on 05 Dec. 2016.

REGULATORY LABELING:

INDUSTRY CHALLENGES AND PATH-BREAKING GLOBAL LABELING XCELLENCE (GLX) FRAMEWORK

In an ever changing Regulatory environment, health authorities around the world mandate drug companies with various drug labeling formats and standards. To comply with those time-critical labeling mandates, organizations find it challenging to create, track and manage various aspects of drug labeling lifecycle.

Right from managing various activities involved in the labeling process like review and approval workflow, global and regional team collaboration, change controlling and deviation management, and mandate-based label amendments, organizations might have to navigate through various business, functional and technical challenges. Before searching for a comprehensive Regulatory labeling framework to address the current day industry complexities, perhaps the need of the day is to understand the challenges the industry is facing today from various perspectives. Below here we've listed out some of them.

Business Regulatory Labeling Challenges

Delayed & Inconsistent Submissions Across Markets
- Ineffective approval process
- Non-uniform versions of documents
- Undefined turnaround time and quality metrics
- Local systems Vs Centralized systems

Business Continuity
- People dependency leading to challenges in resources continuity
- Resource transition
- Decentralized, un-versioned work packages

Centralization & Harmonization
- Global submissions, artwork and label management
- Global intelligence-driven approach
- Compliance monitoring and business risk management

Non-Compliance
- Lack of process adherence
- Deviation from documented SOPs
- Undefined process documentation

Impact on Patient Safety & Brand Image
- Inconsistency across markets impacting the brand image
- Non-traceability of information
- Slower response to changes in regulations

Productivity, Efficiency & Cost
- Duplication of work, reduced productivity due to lack of traceable metrics hence increased costs
- Cost of non-compliance
- Approved documents not maintained centrally
- Manual processes such as approval

Functional Regulatory Labeling Challenges

Process Challenges:
- Establishing GLM processes with CCDS / CCSI and labeling harmonization for Generics is challenging because as per regulations local labeling for generics has to follow innovator labels
- In terms of base/reference documents, for innovator scenario, local labels can follow the CCDS but in the generics scenario they have to follow the local innovator labels

Guideline-based Challenges:

- Later this year, US FDA will be rolling out revised guidelines which will require generics to maintain their own safety data, in which case CCDS / CCSI will become more significant
- Following relevant SPC/PI and other labels as RSI
- The common challenge in all approaches (whether hybrid, US or EU format for CCDS/CCSI) is that some markets have their own specific formats that neither align with EU SPC or US PI (e.g. Japan, Australia, Canada, South Africa). In those countries, it is difficult to compare and to expect them to align whenever a CCDS / CCSI is distributed
- While collecting source documents for CCDS creation for some companies, it is important to check where the product is registered, and get the labels. Prioritization of source documents is important for right information and process efficiency
- While collecting source documents from the markets, there are often challenges in terms of the correct versions, correct procedures etc. to refer to. The process can be time-consuming if the email is used for document exchange.
- From a process POV, it is challenging to track the distribution, the status of local comparison, deviation reporting and any safety variations of local labels due to the CCDS

Other Challenges

- Differences in stakeholders' understanding of the overall expectation from the program
- Individual accountability and that of others within the project team
- Understanding of the dependencies on critical activities, documents, deliverables and project outcomes that can impact the overall project
- Interaction with multiple stakeholders across the globe
- Complex and varied regulatory requirements across the globe both at the organizational and the Health Authority (HA) levels
- Knowledge gaps
- Frequently changing regional nuances
- Lack of existing work/project instructions and training materials
- Frequent fast-track request in Hyper care phase of the project
- Unavailability of critical documents
  - Risk Management Plan
  - PSUR / PBRER
  - PRAC Recommendations
  - Bio-equivalence Study Report
  - Unable to trace efficacy studies

Technical/Operational Regulatory Labeling Challenges

- Challenges in CDS creation and deviation tracking
- Document level tracking of deviations and integration with DMS
- Integration of document creation within CDS management for complete workflow
- Automated tool for document creation, document tracking and deviation tracking
- Integration with multiple platforms
- Track changes in CDS
- Deviation reporting and compliance tracking

Freyr Global Labeling Xcellence (GLX) Framework

With the industry challenges for Regulatory labeling decoded, if there seems to be any gap for successful compliance, then organizations require to opt for a robust Labeling Framework that not only establishes best practices all across, but also implements a fool-proof platform that enables compliant-ready Regulatory labeling. Freyr, as a specialized Regulatory partner offers award winning Regulatory Labeling Framework, to streamline and centralize the labeling activities in an organization.

Freyr has established Global Labeling Xcellence (GLX) Framework to enable organizations uncover potential for managing highly complex, global labeling documents and processes for creating and managing the changes worldwide under well-defined, proactively-intelligent, metrics-driven, and technology-enabled environment.

The innovative 360^0 GLX framework ensures quality of end-to-end labeling processes from operational, subject-matter and technology perspectives. The components of this framework broadly are:

Labeling Process Design and Framework

Labeling Functional Support

Label Management Technology Implementation

The above-mentioned segments further include:

- A well-defined process for creating and managing global label documents
- Managing the changes and deviations in a centralized and streamlined manner
- Defined SOPs for labeling for Consumer Healthcare and Generic industry to suit the fast-paced environment and low margin product portfolio
- Technology solution, Freyr LABEL (Freyr's in house technology) for global label creation, management and change management
- Creating a centralized repository of institutional knowledge to assist teams with relevant information in real-time
- Intelligence driven regulatory services to ensure market specific nuances are available and ensure access to ever changing guidelines as well

Freyr's GLX has been proven in the industry to streamline internal procedures using a part or all of the aspects of the framework. The framework solves key scientific and process-related problems with technology intervention where applicable and avails well-defined processes and KPIs.

In addition, Freyr implements industry's best-in-class practices through GLX Framework, which includes:

- Establishing GLM processes with CCDS/CCSI and labeling harmonisation for Generics including comparison with innovator labels
- Establishing processes and parameters for prioritization of source documents for process efficiency
- Establishing processes to compare the key labels from across the globe and then derive a minimum set of safety information into the CCDS/CCSI
- Establishing processes to track the deviations and coordinating changes and updates in the local labels
- Establishing phased approach for project implementation, clearly defined roles and responsibilities and communication plan. Process for documenting regional nuances, local HA requirements, maintaining knowledge repository, enabling institutional knowledge transfer, experience based risk assessment and risk mitigation
- Management of various activities involved within the labeling process: collaboration between content, artwork, packaging and various other teams, quick and effective label changes based on new guidelines or drug updates

Intelligence driven regulatory services and access to institutional knowledge:

- centralized knowledge sharing for harmonized approach to global markets
- Robust pipeline management
- Phased approach with increasing complexity
- Integrated resource responsibility mapping
- Escalation matrix inbuilt in the system workflow
- Integrated change planning and change communication
- Well defined priorities
- Document management
- Focus on reusability

In Conclusion

Based on Freyr's experience with Consumer Healthcare Industry, over 80% of regulatory personnel time is utilized for managing complex regulatory requirements and maintenance activities that are operational in nature leaving only about 20% of the time to focus on strategic requirements such as new product planning, portfolio expansion and other activities to maximize revenue.

Freyr's GLX Framework has allowed organizations to reduce these overheads by clearly identifying the strategic and operational requirements for the company and defining centralized teams that could focus on core activities while identifying operational activities that could be managed regionally or outsourced. Thus, adding GLX Framework to your Regulatory labeling strategies help you navigate the ever-evolving global regulatory complexities and streamline the Regulatory procedures in a fast paced manner, thus reduce the cost of compliance.

COMMUNICATE
THE SAFETY INFORMATION IN A COMPLIANT WAY

Adapt a Centralized Label Lifecycle Management Platform

To comply with time-critical health authority labeling mandates, organizations might find it challenging to manage various Regulatory labeling activities like review and approval work-flow, core to regional/national label alignment, change control and deviation management etc. This might affect communicating safety information in an incompliant way leading to recalls.

At such times, by adapting a Centralized Label Lifecycle Management Platform – Freyr LABEL, organizations not only can make a difference in creating, tracking and managing various aspects of drug labeling lifecycle, but can also communicate the safety information in a complaint way.

SALIENT FEATURES THAT HELP MANAGE THE ENTIRE DRUG LABELING LIFECYCLE

- Enhanced email and alert-based notification system
- Advanced reporting, audit trail and admin functions
- Centralized labeling content management
- Web-based robust tracking and reporting mechanism
- Easy-to-navigate UI
- Dynamic overview of CCDS
- Prominent DMS
- Customizable solution

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LABEL

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FACTORS THAT MAY CAUSE FDA TO
REFUSE TO RECEIVE (RTR) AN ANDA

The most tedious and time-consuming task even the world's renowned health authorities wish to streamline is reviewing. In a general perspective, pharmaceutical companies have clear-cut guidelines from Food and Drug Administration (FDA) on Common Technical Documents (CTD) and electronic CTD. But when they need to file an Abbreviated New Drug Application (ANDA), there seems to be no commonality between one ANDA to another, thus posing a challenge for the health authority to review multiple number of such applications from a number of organizations. With an intent to streamline and maintain consistency, FDA has set "Refuse to Receive" (RTR), which defines the basic/minimum content requirements for reviewing ANDA.

If we consider the reports, between Fiscal Years (FY) 2013 to 2015, FDA refused to receive 379 ANDAs for reasons other than failure to pay a GDUFA fee. Of all original ANDA submissions, FDA refused to receive:

14% in FY 2013

10% in FY 2014

14% in FY 2015

As per previous year's analysis, **inadequate stability data, incomplete information request response, inadequate dissolution, mismatch of the drug product with reference listed drug (RLD), and failed information requests** within mentioned timelines stood as five most frequent bases for FDA's RTR determination.

Determining RTR

To determine whether an ANDA is complete on its face or not, FDA generally considers the nature of deficiencies. During the administrative review of a submitted ANDA, before its acceptance, FDA determines if the submission is in-line with the requirements of 505(j)(2)(A) of the Federal Food, Drug, and Cosmetic Act (FD&C Act). In case of deficiencies observed, they shall be categorized major or minor as discussed below:

What is a Major deficiency?

A major deficiency is one that in FDA's judgment is significant in nature such as certain deficiencies found in 21 CFR 314.101(d) or 21 CFR 314.101(e); other major deficiencies are discussed in this and other guidance documents. Numerous minor deficiencies (discussed below) also constitute a major deficiency. A major deficiency will result in a determination by FDA that the ANDA is incomplete on its face under 21 CFR 314.101(d)(3), and FDA will therefore RTR an ANDA containing a major deficiency.

Following are few examples of major factors, failure to comply with which, FDA will RTR the ANDA:

- An ANDA must contain a completed application form such as Form FDA 356h
- An ANDA should be formatted according to eCTD format and should be submitted electronically to GDUFA
- Failure to pay GDUFA ANDA fee may result in RTR
- Lack of a designated US Agent for a foreign applicant
- Pending Suitability Petition as a basis of submission
- Failure to justify starting material of API as per ICH Q11 guidance
- Missing sterility assurance data
- Product quality deficiencies

What is a Minor deficiency?

A minor deficiency is one that in FDA's judgment is minor in nature and can be easily remedied. As a result, FDA will allow the applicant a prescribed time period (described below in this section) to provide a response to such deficiencies. In particular, if FDA determines that an ANDA contains fewer than ten minor deficiencies (i.e., nine deficiencies or fewer), FDA will notify the applicant of the deficiencies, by phone, fax, or through the primary method for communication, which is email. FDA, in its discretion, provides applicants with the opportunity to correct minor deficiencies or amend the ANDA, within seven (7) calendar days. If within 7 calendar days the requested information is not received, FDA will RTR the ANDA.

Following are some of the minor factors, failure to comply with which, within7 calendar days of FDA's notification, leads to RTR:

- Environmental Assessment (EA) or claim of categorical exclusion, as defined in 21 CFR 25.31
- The document headers and titles section should be properly translated into English with legible font size of 12pt
- A daily elemental iron calculation for products that contain iron or a statement that the amount of elemental iron ingested per day does not exceed 5 milligram (mg), in accordance with 21 CFR 73.1200(c)
- Completed Pharmacy Bulk Package Sterility Assurance Table
- All the facility information listed in Modules 3.2.S.2 and 3.2.P.3.1 of the application in field 29 of the 356h form
- Patent certification, if there is a patent listed in FDA's Orange Book
- If a listed drug that is not designated the RLD is cited as the basis of submission for an ANDA
- Failure to respond to API deficiencies
- Failure to respond to proposed labeling deficiencies

ANDA "Not Received "

If an ANDA contains ten or more minor deficiencies and one or more major deficiencies, the US FDA will not consider the application as substantially complete under 21 CFR 314.101(b)(1). That leads to FDA notifying the applicants about consideration of the respective ANDA to not have been "received." Applicants still will have a chance to resubmit additional materials rectifying the deficiencies, but the amended ANDA will be considered as new ANDA submission from the date of submission (if deemed substantially complete).

New ANDA, Fee and Withdrawal

Once the ANDA receives RTR from FDA, failure to justification might call for new ANDA submission which increases the burden on the applicant in the form of new ANDA fee. Upon no further action from the applicant to resubmit the ANDA after the FDA's RTR, the US FDA may consider it as a request from the applicant to withdraw ANDA, unless there is a request from applicant for extension of time to resubmit the ANDA. There are exceptions, however, that differs from case to case.

In Conclusion

As the errors exceed the specified limits (9 minor and 1 major), organizations should bear the brunt of fines and new application fee. Once the ANDA is submitted and FDA notifies the applicant about the minor (<9) errors, they should reflect within 7 calendar days, otherwise FDA will reject the application and return only 75% of the initial fee. The applicants have to pay 100% during resubmission. That leads to increased costs to companies. To be cost-effective, organizations must go for ANDA submissions with utmost precision keeping in view of Refuse-to-Receive (RTR). Having partnered with many global clients for successful ANDA submissions, Freyr holds a record of zero RTRs keeping our clients freed from RTR worries.

Know more about Freyr's Submissions & Publishing CoE

freyr Regulatory Centers of Excellence

Regulatory **Dossier** 360
Global Regulatory Dossier Services

KEY DIFFERENCES FOR **DOSSIER SUBMISSION REGULATORY GUIDELINES** IN US, EUROPE, AND INDIA FOR DRUG APPROVALS

When billions are at stake, it's always good to know the region-specific regulatory procedures that can reap maximum benefits for the years of research, efforts, and money involved in drug manufacturing. At present, different countries follow different dossier submission procedures for drug approvals. Among them, the United States stands the strictest. Likewise, Europe and India to have an equal share of dossier submission complexities. Let us look at key differences in the Regulatory requirements for the US, Europe and India.

THE KEY DIFFERENCES

Requirements	US	Europe	India
The Registration Process	Single Registration Process	Multiple Registration Processes — Centralized — Decentralized — Mutual	Single Registration Process
TSE/BSE study data	TSE/BSE study data not needed	TSE/BSE study data needed	TSE/BSE study data needed
Braille Code on Labelling	Not Needed	Needed	Not Needed
Post Approval Changes	Post-approval changes in the approved drug: — Minor changes — Moderate changes — Major changes	Post-variation in the approved drug: — Type IA Variation — Type IB Variation — Type II Variation	Post-approval changes: — Major quality changes — Moderate quality changes

ADMINISTRATIVE DIFFERENCES

Requirements	US	Europe	India
Application	ANDA/NDA	MAA	MAA
Debarment Classification	Needed	Not Needed	Not Needed
Number of Copies	3	1	1
Approval timeline	18 months	12 months	12-18 months
Fees	Under $2 million-NDA Application $51,520 – ANDA Application	National fee (including hybrid applications): £103,059 Decentralised procedure where UK is CMS: £99,507	50,000 INR
Presentation	eCTD & Paper	eCTD	Paper

FINISHED PRODUCT CONTROL REQUIREMENTS

Requirements	US	Europe	India
Number of batches	1	3	1
Packaging	A minimum of 1,00,000 Units	Not Needed	Not addressed
Process Validation	Not needed at the time of submission	Needed	Needed
Batch Size	1 pilot scale or a minimum of 1 lakh units whichever is higher	2 pilot scale plus 1 lab batch or a minimum of 1 lakh units whichever is higher	Pilot scale batch

STABILITY REQUIREMENTS

Requirements	US	Europe	India
Number of batches	3 Pilot Batch or 2 Pilot Batch & 1 Small scale	2 Pilot Scale (If API Stable) 3 Primary Batches (If API unstable)	2 Pilot Scale/Production scale(If API Stable) 3 Primary Batches (If API unstable)
Condition for stability	Long term: 25°C/60%RH Accelerated: 40°C/75%RH(0,3,6 months); Intermediate: 30°C/65%RH	Long term: 25°C/60%RH Accelerated: 40°C/75%RH(0,3,6 months) Intermediate: 30°C/65%RH	Long term: 30°C/70%RH Accelerated:40°C/75%RH (0,3,6 months)
Minimum time period at submission	6 Months Accelerate & 6 Months long term	6 Months Accelerate & 6 Months long term	6 Months Accelerate & 6 Months long term
Container Orientation	Inverted & Upright	Do not address	Upright and Inverted
Clause	21 CFR part 210 & 211	Volume 4 EU Guidelines for medicinal products	ICH Q1F
QP Certification	Not Needed	Needed	Needed

FINISHED PRODUCT CONTROL REQUIREMENTS

Requirements	US	Europe	India
CRO Audits	Audited by FDA	Audited by MHRA	CDSCO
Reserve Sample	5 times the sample needed for analysis	Not Needed	-
Fasted/Fed	As per OGD recommendations	Not Needed	As per CDSCO recommendations
Retention of Samples	5 years from the date of filing the application	Not Needed	3 years from the date of filing the application
BE study of Generic Drugs	Against US RLD in any country. To refer 'BE recommendations' in FDA site for guidance	Against EU reference product (ERP) in any country	Against US/EU and Australia RLD in any country except Thailand, where BE to be done locally against local reference product

References:

1. Drugs: From Discovery to Approval, Wiley, Rick NJ
2. IRA R Berry, Robert P Martin, editors. The Pharmaceutical Regulatory Process
3. A Review on Drug Approval Process for US, Europe and India, International Journal of Drug Regulatory Affiars

Throwback 2016

Regulatory Guidelines for the Pharma Industry, so far in '16

In an ever changing world of Life Sciences regulations, the Pharma industry has seen many new mandatory requirements from the health authorities worldwide. Right from the Food and Drug Administration (FDA), European Medicines Agency (EMA), Therapeutic Goods Administration (TGA), the Health Canada (HC), the Saudi Food and Drug Authority, to the Medicines Control Council, health authorities worldwide have released numerous guidelines and guidance documents, if not mandates related to stringent deadlines to be justified for Regulatory Submissions and Publishing, Labeling, Cosmetics, Medical Devices and for many more categories. Concluding the year 2016 on a successful note, we would like to give you a throwback on Regulatory guidelines for the Pharma industry in general.

Submissions & Publishing

freyr Regulatory Centers of Excellence — **Submissions 360** Global Electronic Submission and Publishing Services

Mandatory 'non-eCTD electronic only' DMF submissions towards Health Canada

After an announcement by Health Canada, all existing Drug Master Files (DMF) in paper format were converted to "non-eCTD electronic-only" format to comply with the March 31, 2016 deadline. Electronic documents were uploaded onto the Health Canada viewing tool, where they made accessible instantly to Health Canada staff involved in the review of the regulatory activities. In case a company can't manage to provide the complete electronic copy of the DMF, it would get suspended, i.e., no further access for review will be granted and no update will be accepted for the DMF.

The main focus and intention of mandatory DMF conversion was to encourage overall effective record management and to ensure authenticity, integrity, availability, traceability, and that non-repudiation of the data is maintained.

Baseline towards SFDA optional for products that finished all regulatory activities

The Saudi Food and Drug Authority (SFDA) updated its Baseline eCTD Submission requirements, which stressed that, effective from 17th of July 2016 onwards, baseline would be optional for products that finished all regulatory activities (initial registration, renewal or variation etc.).

However, it should be noted that come 1st of January 2017, the baseline will be mandatory for any new regulatory activities such as initial registration, renewal or variation etc.

Regulating complementary medicines in South Africa post June 2016 requires dossier submissions in ZA CTD (South Africa Common Technical Document) format

Just like every country has its own Regulatory data requirements, when it comes to dossier submissions for medicine registrations, the South African market has a specific format as well. Post June 2016, regulating complementary medicines in South Africa requires dossier submissions in a ZA CTD (South Africa Common Technical Document) format.

Aimed at harmonization of the overall dossier content, the ZA CTD submission seems to be quite a daunting task for companies to chalk out special plans and execute procedures for the CTD conversions.

EMA encourages companies to submit Type I variations for 2016 by end of November

The European Medicines Agency (EMA) advised marketing authorisation holders to submit any Type IAIN and Type IA variations for 2016 by end of November. This will in turn enable the Agency to acknowledge the validity of the submissions before the Agency's closure between 23rd December 2016 and 2nd January 2017 within the 30-day timeframe set out in Article 14 of Commission Regulation (EC) No 1234/2008.

Marketing authorisation holders are also advised to submit any Type IB variations or groupings of Type IB and Type IA variations to initiate procedures in 2016 by 13th December 2016. For submissions received on or after 14th December 2016, the procedure may not start until January 2017.

Cosmetics

freyr Regulatory Centers of Excellence — **Consumer 360** Specialized Regulatory Services For Consumer Healthcare

The Food and Drug Administration (FDA) has established that antiseptic wash products with certain (19 in number) active ingredients can no longer be marketed

In a September 2016 announcement, the Food and Drug Administration (FDA) has established that antiseptic wash products with certain (19 in number) active ingredients can no longer be marketed. As per the final rule released by the FDA, manufacturers marketing OTC antibacterial soaps are required to remove active ingredients: Triclocarban and Triclosan from their products. However, the guidance is not applicable to products like wipes, hand sanitizers, shaving creams, or toothpastes.

As of now, the manufacturers have got one-year timeframe to have these ingredients removed from their products and comply with the guidance. Until then, these products cannot be marketed.

Japan implements the Ingredient ban for Medicated Products

Following the US Food and Drug Administration's (FDA) announcement of the final safety rule for antibacterial soaps, Japan turned the first implementation force in APAC announcing (in October 2016) that they have implemented the ingredient ban already.

The Japanese Ministry of Health, Labour, and Welfare (MHLW) informed that they have eliminated the suggested ingredients from medicated products such as soaps, handwash, shower gel and facial cleansing.

With the reports stating that Triclosan and Triclocarban are the two commonly used ingredients across the Asia-Pacific region and world over, Japan's immediate implementation is a welcoming gesture for other countries to follow suit at the earliest.

Cosmetics Notifications System in Malaysia

The cosmetic notification system in Malaysia has been active for quite some time now. For a company to be able to market their products in Malaysia, it needs to notify the Director of Pharmaceutical Services (DPS) through the National Pharmaceutical Control Bureau (NPCB). It is obligatory for the companies to be first registered with Syarikat Suruhanjaya Malaysia (SSM) or Malaysian Registrar of Business (ROB). Malaysia seems to be one of the most promising emergent markets, especially for cosmetic product manufacturers. Missing out an opportunity to register cosmetic product through Malaysian cosmetic notification system may result in loss of great opportunities.

Labeling

freyr Regulatory Centers of Excellence — **Label 360** GLOBAL AND REGIONAL Label Content and Process Services (CCSD/LPD/RSI)

Health Canada releases plain language labeling guidance. For prescription products and those administered or obtained through a health professional, the Regulations apply as of June 13, 2015

To prevent drug adverse events, Health Canada released a guidance document for Plain Language Labeling, which came into effect from June 13th, 2015, for Prescription drugs,

and is expected to come into effect from June 13th, 2017, for non-prescription drugs.

The motto behind the frequent labeling guidelines is to ensure that labels not only convey accurate drug information to the end user, but also ensure drug safety by making the information easy to understand by both physicians and patients alike.

Starting 31st August 2016, TGA introduced new labeling rules and gave a four-year extension for medicine manufacturers to update their labels

New labeling requirements announced by the Therapeutic Goods Administration (TGA) went effective from 31st August 2016 and a four-year transition time has been given to companies to be compliant with the improved standards. The sponsors will have enough time for transition and from 1st September 2020, their medicine labels will need to comply with the new improved regulations.

The new standards will be available on the Federal Register of Legislation on 17th August 2016, thus making it an easy process for the Sponsors to review them before they come into effect.

Medical Devices

Technology 360
R&D, Regulatory Technology Solutions and Services

The UDI and the postponed mandate. Compliance date extended for UDI label and data submission requirements to September 24, 2018, for certain class II devices

In a September 6th, 2016 released announcement, the Food and Drug Administration has informed labelers that compliance date for certain class II devices is extended to September 24th, 2018 and clarified that the same date will act as compliance date for device constituents of certain combination products UDI label and GUDID submission requirements.

In General

Intelligence 360
Medical regulatory, safety and clinical writing services

MHRA no longer wants GPvP compliance reports to be submitted

The United Kingdom's Medicines and Healthcare Products Regulatory Agency (MHRA) has on, 25th July 2016, updated that it no longer wants GPvP compliance reports to be submitted by organizations.

Though the agency has dropped the requirement of GPvP compliance reports, it may contact organizations at any given time for necessary information about the pharmacovigilance systems and authorized products. So, it is still an obligation for companies to maintain or follow the Good Pharmacovigilance Practices which are going to be useful, when necessary.

The Brexit and aftermath

As Britain voted to leave the European Union (EU) on June 23rd, 2016, the situation seems to be uncertain for drug/pharmaceutical companies to chalk out regulatory processes. The first and foremost would be the impact of Health Authority relocation. As the UK decided to move on from the EU, Britain could face uncertainties right from manufacturing, testing, and release of medicines into the market and to conduct clinical trials outside the UK, approaching for health authority inspections, understanding the patents ecosystem, and obtaining product licenses.

On the other hand, it could even be a severe setback to EU's drug/medicines approval processes as the industry anticipates that the Brexit could snarl the regulatory system and create uncertainty among operational procedures at the EMA which might result in complexities and confusion soon. Whatever may be the implications, navigating through the regulatory ecosystem in the UK and the EU regions in the current uncertain scenarios might be like wading through the unknown waters for the manufacturers who are new to the market.

In conclusion

It's not how the industry is being regulated, but how the Pharma manufacturers or companies are sustaining the change/transition that matters when it comes to end-to-end compliance. Given the region-specific procedural complexities that manufacturers face bringing their products to market, their invaluable Regulatory efforts and audit- and compliant- ready procedures should take the centre stage. Freyr is delighted to be a part of it all for the year 2016 for some of the global Bio-Pharma (Innovators/Generics), Consumer Healthcare and Medical Device companies.

Know more : **www.freyrsolutions.com**

References:

1. www.hc-sc.gc.ca
2. www.ema.europa.eu
3. www.fda.gov
4. http://www.mccza.com/
5. www.tga.gov.au
6. https://www.gov.uk/guidance/good-pharmacovigilance-practice-gpvp#history

2017 And Farther

GEAR UP TO BE COMPLIANT

The future of Pharma Regulations has never been so complex and challenging and at the same time has never been so easy to deal with provided the burgeoning section of Regulatory Intelligence service providers feeding the industry with continuous health authority updates and requirements. Setting forth clear-cut guidelines to be compliant all across, various health authorities (HAs) worldwide released many guidelines for the manufacturers and pharma companies. Right from a mandatory requirement for eCTD submissions, manufacturers might have to cope up with many HA obligations related to submissions, labeling, registrations, renewals etc. in 2017 and farther. As a critical aspect to roll up to be compliant, we tried to decode them for your convenience. Some of them are:

Submissions & Publishing

freyr Regulatory Centers of Excellence — Submissions 360
Global Electronic Submission and Publishing Services

US FDA sets DMF eCTD submissions deadline for May 5th, 2017

As directed by the FDA in its eCTD guidance, beginning May 5th, 2017, all new DMFs (Drug Master Files), as well as all documents submitted to existing DMF, must be submitted in an electronic format (eCTD).

The DMF submissions that are not submitted in eCTD format after this assigned date will be thereby rejected. However, the DMF holders whose DMFs are currently in paper form will not be required to resubmit their entire DMF in eCTD format, after May 5th, 2017.

FDA eyes mandatory eCTD format for certain submissions types beginning May 5th, 2017

In adherence to the FDA directive, beginning May 5th, 2017, submission types namely, NDA, ANDA, BLA and Master Files must be submitted in the Electronic Common Technical Document (eCTD) format. The eCTD is CDER/CBER's standard format for electronic regulatory submissions.

However, for all commercial IND submissions, the deadline is set for May 5th, 2018. Submissions that do not comply with the requirements stated in the eCTD Guidance will not be filed or received.

FDA to add technical rejection criteria to existing eCTD validation

Beginning December 17th, 2016, be it new drug applications (NDAs), biological license applications (BLAs) or abbreviated new drug applications (ANDAs), the study data that organizations use for compliance must be aligned with the US FDA listed data standards. However, in the case of commercial INDs, FDA says that the requirement starts only after December 17th, 2017.

Making it more stringent in terms of enforcing deadlines, the FDA says that technical rejection criterion is being added to the existing electronic Common Technical Document (eCTD) validation criteria. The FDA, on its website, is expected to give 30 days' notice to the industry prior to the technical rejection criteria becoming effective.

Health Canada to impose eCTD format as mandatory from January 1st 2018 for certain submission types

Health Canada has been accepting regulatory submissions in eCTD format since 2004 but striving towards a common submission intake process, as well as intending to stay aligned with other regulatory authorities, Health Canada is revising the existing requirements.

MCC sets timelines for medicine registration's eCTD submissions in ZA Module 1 V2.0 till 30th April 2017

The Medicines Control Council (MCC) has given clarity for manufacturers who are willing to submit applications for medicine registrations in electronic common technical document (eCTD) format. The guidance mainly emphasized the implementation timelines of South African Module 1 eCTD Specification and Validation Criteria v2.0.

Starting 1st November 2016, the recent version of South African Module 1 specification for eCTD V2.0 has been implemented. However, MCC has given a grace period of 6 months, from 1st November 2016 to 30th April 2017, for both the versions of South African Module 1 specifications for eCTD.

If by chance the eCTD submissions made after 1 May 2017 do not comply with the South African Module 1 specification for eCTD V2.0, the applications will be rejected. That confirms the final deadline for eCTD submissions in newer format to be 1st May 2017.

Post Jan 1st, 2017, SFDA mandates baseline eCTD submissions requirements

The Saudi Food and Drug Authority (SFDA) has updated its Baseline eCTD Submission Requirements, as per which, if an eCTD application is being used for the first time as variation or renewal application, then the applicants are required to submit a technical baseline for the product as this will greatly facilitate the review process. As of 17th July 2016, the Baseline will be optional for products that finished all regulatory activities including initial registration, renewal or variation. But come January 1, 2017, the baseline will be mandatory for any new regulatory activities.

Cosmetics

freyr Regulatory Centers of Excellence — Consumer 360
Specialized Regulatory Services For Consumer Healthcare

CFDA July 2017 deadline for cosmetic products' new packaging requirements

With the new cosmetic product license, the CFDA is expected to discontinue all the requirements for displaying QS Labels on the cosmetic products' packaging, which has been a mandatory requirement to be displayed on all the cosmetics products since 2005. QS stylization is a Chinese quality and safety mark must be showcased on all the packages.

From July 1st 2017 onwards, the local cosmetic manufacturers are not required to display QS label and mandated to follow the new packaging requirements. However, the products which are already packaged can be made available in the market till the expiration date after which they need to comply with new packaging requirements.

Labeling

freyr Regulatory Centers of Excellence — Label 360
GLOBAL AND REGIONAL Label Content and Process Services (CCSD/LPD/RSI)

Health Canada releases plain language labeling guidance. For non-prescription products, the Regulations apply as of June 13th, 2017

Emphasizing safety through labeling, Health Canada has released a guidance document for Plain Language Labeling which came into effect from June 13th, 2015, for Prescription drugs, and is expected to be in effect from June 13th, 2017, for non-prescription drugs.

Well, the motto behind the frequent labeling guidelines is to ensure labels should not only convey accurate drug information to the end user, but should also ensure drug safety by making the information easy to understand by the physician and patients as well.

From 1st September 2020, all medicine labels will need to meet the new TGA rules

Even when the new labeling rules took effect from 31st August 2016 in accordance to the TGA (Therapeutic Goods Administration) Australia, there is a four-year transition period to allow medicine manufacturers time to update

their labels and to sell their existing stock. And during this period, both the versions are acceptable, i.e., manufacturers need to meet either the old or the new rules.

The labeling requirements for Australian medicines are being updated after several years of consultation with industry, health professionals and the community alike. The primary aim to bring about the changes in Australian medicine labels was to align them with international best practices. Hereon, this will help Australians to make more informed choices about their medicines and use them with care.

General

Intelligence 360
Medical regulatory, safety and clinical writing services

CDRH's top 10 Regulatory science priorities for FY 2017

In 2015, the Medical Device's Regulatory Decision Making Centre for Devices and Radiological Health (CDRH), a division of US Food and Drug Administration (FDA), has published its first set of priorities for 2016. Increasing its outreach for FY 2017, it has been learned that the center was able to identify new topic areas sourced through more from internal staff. In the new priority list, the center has discussed the new topic areas (clinical trial design, and precision medicine) as well as described existing topic areas in a detailed fashion. Majorly focused on influencing the Regulatory decision making for medical devices and radiation-emitting products, the CDRH's comprehensive list of top 10 priorities for FY 2017 includes:

- Leveraging "Big Data" for Regulatory decision-making
- Modernization of biocompatibility and biological risk evaluation of device materials
- Leveraging real-world evidence and employing evidence synthesis across multiple domains in regulatory decision-making
- Enabling advanced tests and methodologies for medical device clinical performance prediction and monitoring
- Developing methods and tools for improving and streamlining clinical trial design
- Developing computational modeling technologies for supporting regulatory decision making
- Enhancing digital health performance and strengthening medical device cybersecurity
- Reducing healthcare-associated infections with better understanding on the effectiveness of antimicrobials, sterilization and reprocessing of medical devices
- Collecting and using patient input in regulatory decision-making
- Leveraging precision medicine and biomarkers for prediction of medical device performance, disease diagnosis and progression

In conclusion

As years pass on, though the Pharma industry is being guided to be part of electronic Regulatory procedures, pharma manufacturers are finding it challenging to cope with hidden complexities for end-to-end compliance. In such scenarios, apart from being audit-ready right from the first step of drug innovations, they should prefer to opt for a region-specific Regulatory expert to bring their products to market as per the HA requirements. Freyr's expert Regulatory team has so far assisted some of the global Bio-Pharma (Innovators / Generics), Consumer Healthcare and Medical Device companies.

Know more : **www.freyrsolutions.com**

References:

1. www.fda.gov
2. www.mccza.com
3. www.hc-sc.gc.ca
4. www.tga.gov.au
5. http://www.fda.gov/downloads/MedicalDevices/ScienceandResearch/UCM521503.pdf
6. http://eng.sfda.gov.cn/WS03/CL0755/

Submissions 360
Global Electronic Submission and Publishing Services

IMPLEMENTATION DEADLINES FOR SOUTH AFRICAN
MODULE 1 eCTD SPECIFICATION AND VALIDATION CRITERIA V2.0

In the October'16 released guidance, Medicines Control Council (MCC) has given clarity for manufacturers who are willing to submit applications for medicine registrations in electronic common technical document (eCTD) format. The guidance mainly emphasized the implementation timelines of South African Module 1 eCTD Specification and Validation Criteria v2.0. Having given clarity on the implementation timelines, medicine manufacturers aiming at submitting registration applications in eCTD format to MCC must keep in view that:

Starting 1st November 2016 the recent version of South African Module 1 specification for eCTD V2.0 is being implemented. Thus they must comply with the new standards while submitting medicine registration applications. However, MCC has given a grace period of 6 months, from 1st November 2016 to 30th April 2017, for both the versions of South African Module 1 specifications for eCTD.

If by chance the eCTD submissions made after 1st May 2017 do not comply with the South African Module 1 specification for eCTD V2.0, the applications will be rejected. That confirms the final deadline for eCTD submissions in newer format to be May 1st 2017. The sequences of eCTD submissions made before the deadline need to be upgraded aligning with newer format and manufacturers have no need to update the previously submitted / older sequences and resubmit them.

In addition, MCC has also published V2.0 validation criteria that are said to be aligned with the EU validation criteria V6.1. For granular detail, have a look at MCC website where the agency said to be published a track change of all the modifications.

Aligning to the new specifications of eCTD formats not only requires a specialized knowledge on the particular region's eCTD updates but also demands expertise in accurate implementation. With a proven expertise, a Regulatory submissions and publishing partner may suffice your requirement of being complied.

freyr Regulatory Centers of Excellence

Technology360 R&D, Regulatory Technology Solutions and Services

MANAGING MEDICAL DEVICES FOR/IN CANADIAN LANDSCAPE

Cost effectiveness for the establishment and operations of medical devices manufacturing facilities – **Canada ranks 1st in the G7**

The number of sites for active clinical trials for medical devices – **Canada ranks 3rd in the world**

The medical devices sector – **Canada ranks 9th globally**

Canadian Medical Devices market is rapidly growing and gaining all the attention. The best of acknowledgements are the above-mentioned statements along with $6.8 billion estimated medical devices sector. With the prosperous growth aspects, the Canadian Regulatory approvals for medical devices – for their worldwide recognition – stands a beneficial factor for new market entrants besides local manufacturers. For successful market entry, it is expected that medical device manufacturers are well aware of the Canadian medical devices' Regulatory regime. Throwing some light on the market, here we take you on an insightful journey to manage your medical devices for/in Canada.

Medical Devices (MD) – Definition

The term "medical device" covers a wide range of products used in the treatment, mitigation, diagnosis or prevention of a disease or abnormal physical condition. i.e. pacemakers, artificial heart valves, hip implants, synthetic skin, medical laboratory diagnostic instruments, and test kits for diagnosis and contraceptive devices.

Regulation Authority

The Medical Devices Bureau (MDB) of the Therapeutic Products Directorate (TPD) is the national authority that monitors and evaluates the safety, effectiveness, and quality of diagnostic and therapeutic medical devices in Canada.

The Process of regulation in brief

TPD ensures, to the extent possible, the safety, effectiveness and quality of medical devices in Canada by a combination of pre-market review, post-approval surveillance and quality systems in the manufacturing process.

Authorization prior to selling a medical device in Canada

- Medical Device Licence is required before they can be sold in Canada.
- Risk-based classification has been made for Medical devices in accordance with their usage. All medical devices are grouped into four classes with Class I devices presenting the lowest potential risk (e.g. a thermometer) and Class IV devices presenting the greatest potential risk (e.g. pacemakers).
- Class I devices do not require a licence; they are monitored through Establishment Licences.
- Class II, III, and IV devices manufacturers must obtain a Medical Device Licence prior to selling in Canada,
- Classifications are further influenced based on:
  - A. The degree of inappropriateness, the length of indiscreetness, and its exposure to the body system
  - B. Whether the device counts on a source of energy
  - C. Whether the device is salutary
  - D. In the event, if the device delivers energy (e.g., the radiation Emission)

› Class I devices are exempt from device-licensing requirements, but class II, III and IV devices require a medical-device licence from Health Canada prior to being imported, sold or advertised for sale.

Establishment Licence

Establishment Licence will define the identity of establishments that are selling or manufacturing devices and provide assurance to TPD that regulatory requirements related to post-production activities have been met like system provision for appropriate recall, problem solving and complaint management. It also covers proper distribution records maintenance.

Medical Device License Application Review Process

› When a company decides to market a medical device in Canada, it should submit a Medical Device Licence Application with the varied data depending on the class of the device.

› TPD reviews the application.

› A License is issued if the information provided meets the requirements of the health authority Medical Devices Regulations.

Health Canada website maintains list of licensed medical device

License rejection:

› In-case of inadequate or unacceptable information, License will be rejected and upon resubmission with adequate and requested information, license can be issued.

License application review timeline:

› Class II License application review target time is 15 days

› Class III License application review target time is 75 days

Provision of SAP for new Medical Devices:

› The Special Access Programme (SAP) allows doctors to gain access to medical devices that have not been licenced in Canada. The SAP is used in emergency situations or when conventional therapies have failed, are unavailable or are unsuitable to treat a patient.

Licensed Medical Device Monitoring:

› Licensed Medical Devices are monitored by TPD to ensure their continued safety and effectiveness.

› License can be suspended if a medical device is found to be no longer safe and effective. Or the manufacturer may be requested to recall or refit the medical device.

› There must be information pertaining to continued safety and effectiveness of licensed medical device.

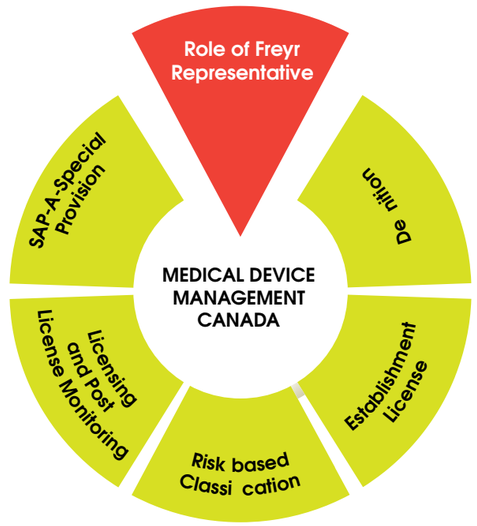
Quality System Elements

› Quality system elements and procedures are recommended to be described in Quality manual

Quality system Regulation

› Quality System
› Design Controls
› Process Validation
› Personnel
› Buildings and Environment
› Equipment and Calibration
› Device Master Record
› Document and Change Control
› Purchasing and Acceptance Activities
› Labeling
› Product Evaluation
› Packaging
› Storage, Distribution and Installation
› Complaints
› Servicing
› Quality System Audits
› Factory Inspection

Role of Freyr representative



Freyr, as a specialist global Regulatory partner, assists Medical Device manufacturers in decoding the local regulatory requirements and comprehensive product classification based on relevant Health Canada Regulations. Freyr assists foreign manufacturers

› to identify device classification,

› to present accurate and complete application to TPD taking ownership for obtaining license and post license monitoring help

› to ensure continued safety and effectiveness of licensed medical device

CASE STUDY

End-to-end Gap Analysis for IDMP Readiness across Europe

CLIENT

Global Top 20 Consumer and Pharmaceutical Company

GEOGRAPHY / LOCATION(S)

Japan / America / Europe

FUNCTION(S)

Regulatory Information Management

SERVICE(S) / SOLUTION(S)

IDMP Master Data Management

THERAPEUTIC AREA(S) / INDICATION(S)

Data Collation

PRODUCT(S)

Science based medicinal products

Technology Environment

IDMP Data Collection Repository; MS Office

BENEFIT HIGHLIGHTS

- Conversant with IDMP requirements and data sources
- IDMP readiness for compliance across Europe region

Business Imperatives

- The client offers innovative, science-based medicinal products for maintaining and improving health
- The client was looking for support from an external partner to help collect, collate and transform XEVMPD data to IDMP data and also in accelerating the data entry activities

Challenges

- To be complied with the ISO IDMP requirements. The client had to accomplish this daunting task of ~1500 MAs
- Lack of internal software technology to undertake such an initiative. Since the data involved many cross-functional teams, the company was required to have a compliant process for collecting, collating & transforming the data for IDMP submissions
- Unavailability of the final implementation guides from Europe added to the complexity

Freyr Solutions & Services

- Comprehensive risk analysis determining the importance of each field described in the ISO standards
- Defined an end-to-end process for Creation, Collation & Assembly of Submission content by conducting readiness assessment on IDMP requirements
- Identified data sources and prepared a detailed system landscape document explaining each IDMP data element source system
- Conducted preliminary assessment on system landscape document and provided all the findings in GAP analysis reports

Client Benefits

- Conversant with IDMP requirements and data sources
- Knowledge of data elements for which data sources not available
- Readiness for IDMP compliance in Europe region

CASE STUDY

Time-Critical Manufacturing Site Transfers

Analyzed. Compiled. Filed

CLIENT

A Swiss-based Pharmaceutical Company

GEOGRAPHY / LOCATION(S)

APAC (7 Countries), Africa (25+ Countries)

FUNCTION(S)

- Regulatory Affairs: Dossier Preparation
- Regulatory Operations
- Regulatory Intelligence
- Regulatory Data Management

SERVICE(S) / SOLUTION(S)

- Variations
- New Registrations, Renewals and Regulatory Intelligence
- Variation packages compilation and submission in solutions

THERAPEUTIC AREA(S) / INDICATION(S)

OTC, Prescription & Dietary Supplements

PRODUCT(S)

- Content Repositories (Document management Systems, File shares)
- A Submission Management Solution
- Regulatory Information Tracking Tool

BENEFIT HIGHLIGHTS

- 1000+ Marketing Authorizations
- 50+ Products across OTC, Prescription & Dietary Supplements
- 40+ Markets

Business Imperatives

- Identification of changes between approved and proposed documentation
- Cross-verification of changes with Change history Sheet
- Compilation of Variation packages
- Module 1 document upload on to a submission management solution for publishing
- Interacting with various country managers for submissions in respective markets
- Update Regulatory Information Tracking tool regarding the status of the project

Challenges

- To identify the variations for all the products registered in the APAC and African regions in a short turnaround time
- To take a comprehensive pathway for execution along with renewals, new registrations and database management

Freyr Solutions & Services

- Streamlined compliance efforts to product manufacturing change communication to health authorities
- Identified the data gaps and structured them for successful transfer of country-specific dossiers on to a submission management solution, which in succession updated on to client's internal tracking system
- Extensive Regulatory Intelligence for successful execution of the project in stringent timeframes
- Timely product renewals adhering to stringent timelines
- Effective maintenance of all client products in over 40+ markets

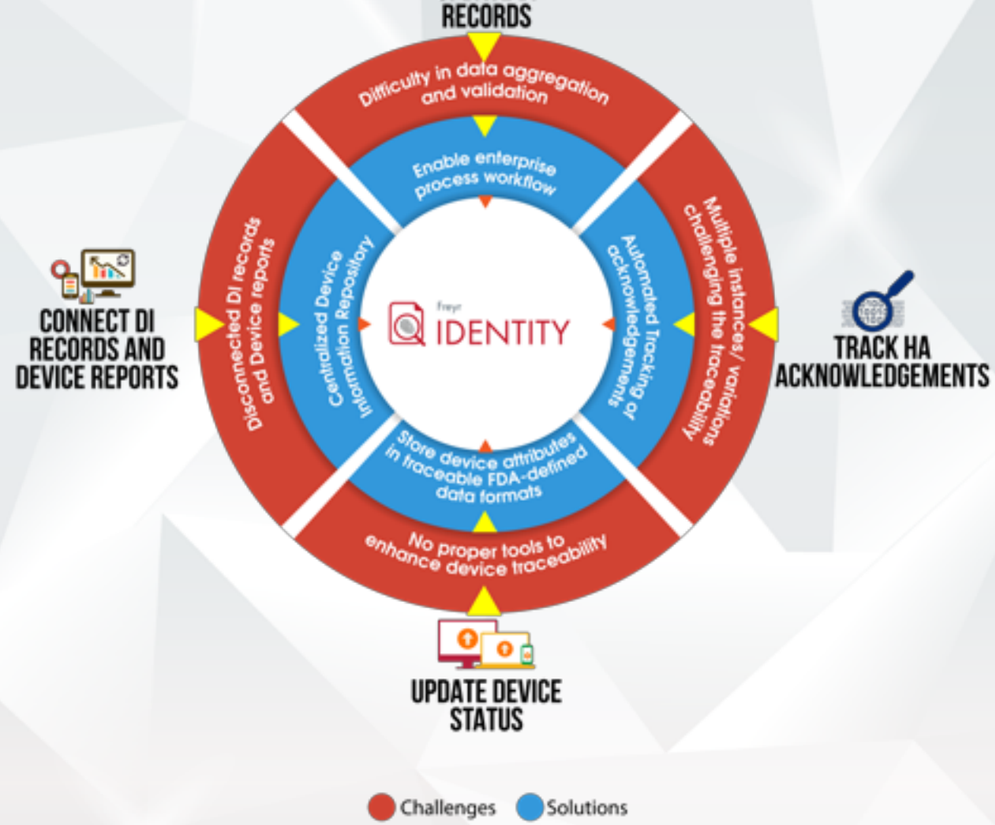
Client Benefits

- 1000+ Marketing Authorizations
- 50+ Products across OTC, Prescription & Dietary Supplements
- 40+ Markets

UDI Compliance: Challenges and The Ultimate Solution

To be aligned with Unique Device Identifier (UDI) compliance, manufacturers are expected to be audit-ready. Right from validating Device Identifier (DI) and Product Identifier (PI) records to successful GUDID submissions, they are ought to be knowledgeable on the data to be submitted and procedures to be followed. Either pre-submission or post-submission, equipped with better knowledge on procedural know-how might protect manufacturers from corresponding challenges pertaining to data aggregation, submitting DI records managing device reports, tracking HA acknowledgements etc.

To equip manufacturers with a better understanding in such scenarios, here we provide you with a quick-to-follow UDI Compliance challenges vs solutions infographic, to structure and plan a comprehensive roadmap ahead.



FREYR LEADERS

THE CURIOUS CASE OF VARDHINI

Gone are the times when statistics on women in formidable positions remained bleak. Today, both in India and across the globe, their accomplishments are exemplary on their own, and even more so, given how hard it can be to establish inroads into industries and job titles traditionally dominated by men. In this edition of Freyr Connect, we have with us Vardhini Kirthivas, currently handling the Pre-Sales domain at Freyr, who has not only made a mark for herself in the pharma and healthcare space but has also been unassumingly setting a benchmark for effective leadership in the organization.

A graduate in Pharmaceutical Sciences from BITS Pilani, her "curious nature" was the sole drive behind the valuable seventeen-years long holistic experience in this field. "Pharma by choice", she asserts. Here are few excerpts from her journey in this space.

Why Pharma over Medicine?

Today when I look back in time, the way my career has shaped up is a marvel in its own might. I was a curious child and in my growing years was always amazed by the human body and how it worked. Amazed by the way the diseases were cured by simple medicines, inquisitive as to how the medicines are manufactured, how they work in our body, and so on and so forth. And I was clear-headed right from the start that this is what I wanted as a career.

"I would ask a question and my next job eventually turned out to be the answer to it."

Starting my career in the R&D domain at Novartis (Mumbai), it was the same curiosity to know more about drug making that landed me in a formulation development team.

"How are they tested," I asked, and was driven to the analytic development domain. The questions regarding the active ingredients and the making of formulation resulted in bagging a job at Chennai-based Active Pharmaceutical Ingredient (API) manufacturing facility, Orchid Pharma (now Hospira Inc.). I got exposed to the need for the regulatory control of drugs for marketing. 'How are drugs marketed' was the next to strike me and hence my tryst with the Regulatory territory of the Pharma world at a small-sized company Shasun Chemicals.

On evolution of the Regulatory framework in the country

The year 1999 was the beginning of the Regulatory set-up in the country and I can safely say that I was a steady witness to its enormous evolution, since then. My stint at Chennai-based Shasun Chemicals was a huge learning experience. From acquiring application forms from an agent, creating documents from scratch including photocopying all those specifications to manually page-numbering all documents; a Regulatory job, back then, seemed to be clerical. But there was a clear picture about how important and how central the role of the team should be. Now, I've seen the gradual automation processes and the amount of knowledge and analytics that goes into it. After all these years, it feels good to have been at the centre of it all, with a holistic view of the overall industry.

On her role at Freyr and what keeps her going

Out here, I'm doing what I think I do best, i.e., "Solutioning: Assessing the capability and competency areas, and providing the best cost-effective solutions to clients and in turn reaping profit benefits for the organization". Every proposal that comes our way is a challenge and the problem-solving aspect of it keeps me charged up. I'm extremely process-oriented and like to create a process where there's none, test repeatability and redo-ability factors of it and move on to some other domain.

On balancing work and family life

Nobody said it would be easy. But over all these years, I've been able to mutually balance my work and personal front, which indeed enabled me to excel. "A synergistic effort it has all been". I've learned to approach a problem in a better way, more effectively, more logically, in a process-oriented manner at both work and home. I've become more mature at handling a team, with gained expertise at multi-tasking. Life's been good, this way!

Success mantra

It's important to be curious with a self-volunteering streak. One should always be curious to explore and learn. Look around and you'll be amazed to have explored what you can deliver. Don't pick everything that comes your way. It's important to first assess, understand and then choose what's best for you. And lastly, let your actions speak.

Interesting things I do: Traveling and Reading

Nocturnal / Diurnal: Nocturnal by profession

Passionate about: Science

Favourite books: Parthiban kanavu by Kalki. Krishnamurthy, The God Delusion by Richard Dawkins, Why Evolution is True by Jerry Coyne

CLIENT VISITS

It was a great honor to welcome a multi-million pharmaceutical company at Freyr to oversee the ongoing projects for Labeling and discuss the future perspectives for medical writing services.

Client delegation met the Freyr core group to discuss business aspects aligning with ANDA dossier preparation & publishing. The client also explored other capabilities on artwork and labeling during the visit.

Client Testimonials

"We would like to appreciate Freyr for making us equipped with well-defined deliverables to the FDA. For their demonstration of 5-star support, we will use Freyr for our overflow of work. We truly believe in Freyr as a brand and as an expert provider of Regulatory services and look forward to work together on an on-going basis. "

Terrific job Freyr, GREAT TEAMWORK!!!

Director of Regulatory Affairs-Operations
India based, Global 4+ Bn Pharmaceutical Company

"Freyr has provided us valuable regulatory inputs from time to time, which has helped us successfully understand country-specific regulatory hurdles as part of bigger solutions to define region-specific regulatory roadmaps for our clients. We not only appreciate Freyr's quality of regulatory inputs, but also their quick turnaround time to address the required critical information gaps across different domains of healthcare (like; medical devices, drugs, IVD, etc). The combination of these expertise along with their understanding of the regulatory framework, makes Freyr a trusted partner for our regulatory affairs activities in the complex environment of the healthcare industry."

Senior Consultant,
Regulatory Intelligence, Life Sciences
A Leading Information Service Provider

"Under the EMA's tight timelines, your resource has successfully delivered on commitments with overwhelming speed and decisiveness ensuring we met the requirements on time. We just wanted to recognize their hard work and diligence on the product information update for a drug. Within just few weeks of their stint at our organization, they successfully navigated our processes and integrated them into the product team. Quite impressive! We must reiterate!"

Senior Regulatory Associate,
Worldwide Regulatory Strategy
A leading research-based global Biopharmaceutical Company

Client Wins

Freyr to provide Regulatory Intelligence services to its client, a leading US-based Mass Media & Information Services company, on upcoming vaccine regulations for WHO & China, Sunset Clause for France & Germany and regulatory guidelines for different categories in the South Korea & Mexico market.

Freyr to provide its much-acclaimed Artwork, Labeling & Submissions services to an India-based company that develops generic formulation products ranging from oral solids to injectables.

Freyr to carry out the regulatory document creation projects for its Europe-based client offering green solutions primarily to cosmetic and pharmaceutical companies.

Freyr to provide quality management system and remediation support to an India-based medical device manufacturer, designer and distributor company, and help build its business in an efficient way.

Freyr to deliver end-to-end regulatory strategy framework for the LATAM market (Brazil & Mexico) to its India-based client, a leading research-based global healthcare enterprise.

Freyr to provide consultation assistance about US Agent Services to an India-based Research Solution provider company in the pharmaceutical product development space.

Freyr to provide Publishing services to an India-based drug manufacturing company implementing its eminent tool: Freyr SUBMIT.

Freyr to deliver services ranging from Labelling, Submissions, Artwork and ANDA dossier compilation to its US-based niche generic pharmaceutical company along with Regulatory information with respect to identification of CMOs in North America & India.

Freyr to provide Regulatory Intelligence services to a leading US-based Pharmaceutical Company, in terms of product information for 15 countries.

Freyr AWARDS & RECOGNITIONS 2016 -17

Freyr bags **"2016 India Knowledge Process Services for Pharmaceutical Life Sciences Growth Excellence Award"**

Freyr has been one of the Finalists of **"CPhI Pharma Awards 2016 Excellence in Pharma: Regulatory Procedures and Compliance"**

Freyr **ranked 11th in "2016 Deloitte Technology Fast50 India"**

Freyr ranked among **"Deloitte Technology Fast500 APAC"**

Freyr stands as one of the **"20 Most Promising Pharma & Life Sciences Solution Providers – 2016"**

PRIDE MOMENTS

It rained awards all through this year! Most notable among them being the Frost & Sullivan's 2016 'India Knowledge Process Services for Life Sciences Growth Excellence Award', at the GIL 2016: India Awards banquet held in Mumbai.

Freyr also bagged the coveted 11th rank at the 12th edition of the Deloitte Technology Fast 50 India Program held in Bengaluru, well demonstrating its diligence to offer tailor-made solutions designed to address a wide array of regulatory domains such as Generics, Consumer Healthcare, Drugs, Devices, Nutritional Supplements, Biologics, Innovative, and Therapeutic areas.

Our Freyr representative along with other winners at the 2016 Deloitte Technology Fast 50 India Program held in Bengaluru

Freyr regulatory experts receiving the 2016 'India Knowledge Process Services for Life Sciences Growth Excellence Award' from Mr. R. Basil, Non-Executive Director & CEO, STS Holdings Limited - Dhaka, in the presence of Mr. Ankit Goyal, Associate Director, Transformational Health Practice, Frost & Sullivan

Travelogue

Surreal Spiti

Spectacular and Adventurous All-Through

Have you had enough of run-of-the-mill mountain and beach travel tales? It's perhaps time to traverse the quaint northeast part of Himachal Pradesh then. You would be rewarded with a never-seen-before high-altitude valley—beautiful, remote and distinctive, with its pretty scattered mud villages, a haunting moonscape for scenery and high-perched monasteries with the many-braided river flowing through it. This is the much-acclaimed Spiti, 'the middle land' between India and Tibet, named after the meandering Spiti river.

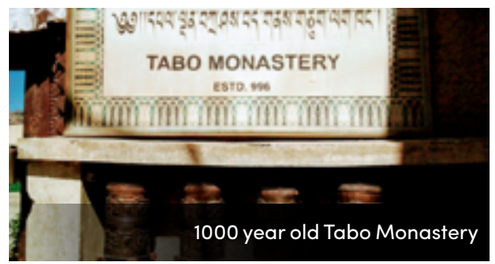
Home to breathtakingly spectacular landscapes, a unique culture, thriving Buddhist legacy, geological heritage spanning 750 million years and the oldest surviving species of wolf in the world, not to mention the endangered snow leopard, the Spiti Valley is fast becoming a famous haunt for tourists and travellers alike, especially backpackers enroute Leh-Ladakh.

Komic- The World's Highest Village with a Road

Deeply soaked in Buddhist tradition, when in Spiti, you can't possibly miss out on paying a visit to the five ancient monasteries located at Tabo, Pin Valley, Dhangkar, Ki and Komic.

The most accessible of these is the 1000-year-old Tabo monastery, founded in 996 AD, and one of the most beautiful Buddhist shrines you can ever come across. Even when it seems unassuming from the outside, entering the inner sanctum, (the 'Temple of the Enlightened Gods') will be worth an experience of a lifetime. The experience at the temple is enhanced by the fact there are no artificial lights inside the monastery. The paintings and murals are lit by streaks of sunlight from latticed openings in the roof and the flickering light from the lamps.

About an hour and a half by road from Tabo, is Dhangkar. The old capital of the Spiti Valley is like a fortress city, a collection of whitewashed mud houses protected by forbidding spiky cliffs from above and a steep climb below. The Dhangkar monastery is a humble affair after the Tabo experience, but what makes it special is the way it is perched on top of a cliff at an impossible angle, threatening to tumble down.



1000 year old Tabo Monastery

A few kilometres beyond Kaza, the district headquarters of Lahaul & Spiti, perched above the valley, is the famous Ki Monastery. Ki has a collection of palm leaf sutras, some 400-600 years old. You must see the secret rooms in which treasures used to be hidden when the monastery was under attack. The view from the top of the monastery is worth several rolls of film.


Gateway to Ki Monastery

Another tourist place worth visiting is Komic, the highest motorable village in Spiti, perched at 4,600m. Up there, you will be barely below the snowline, even in July. Mountain tops always seem close enough to touch, but in Komic they really are. A picturesque view from the highest spot coupled with the serenity of a monastery, and arrays of marine fossils on display (not for sale) is truly worth the trail. The picture-perfect village of Langza is another must-see, with an exceptionally beautiful snow-clad mountain looking over it. A golden statue of the Medicine Buddha sits high on a knoll above the village, warding off the illnesses coming up from below.

Travelling across the Spiti Valley can be one of the most humbling experiences of one's life. The immensity of the Himalayas is awe-inspiring, and the landscape is so alien in this high-altitude desert, that you can only marvel at the tenacity of the people who live and work in such harsh conditions. The journey itself will be quite an adventure, and certainly not one for queasy-stomachs. The Hindustan Tibet Highway runs from Shimla through the Kinnaur region of Himachal, right up to the Spiti valley, and being a border road it is kept open year-round, but only just barely. There are constant landslides and during the winter, this region is often under several feet of snow. Thus, the road, despite being a national highway, is little more than a dirt track in some parts and the going is slow and bumpy.

When: The best season is from mid-May to mid-October, but Spiti has a lot to offer even in the winter months.

How: There are two ways of getting to Spiti. One is over the Rohtang Pass, via Manali, and then through Lahaul over Kunzum-la. But that is possible only after the two passes open, usually in June (till September). The other route takes you on NH22 via Shimla, Rampur Bushair and Pooh. In early May, NH22 is the only way, provided you can get through Malling. Our route was Hyderabad-Delhi-Chandigarh-Shimla-Narkanda-RampurBushair-Karchham-Sangla-Karchham-Pooh-Sumdo-Tabo-Kaza.

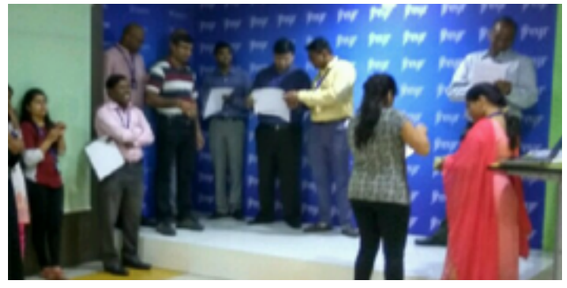
Health advice: Spiti is a high-altitude desert, which means that the oxygen levels in the air are pretty- low. It is advisable to travel to the valley in stages and rest for a day or two to acclimatize before setting out on a trek or any other strenuous activity.


Kibber village

REWARDS & RECOGNITIONS

Freyr conducted Rewards and Recognitions for Quarter 2 to acknowledge employee efforts towards meticulous implementation of projects and successful accomplishments. The rewards were handed over to employees who went an extra mile in different categories like Target Oriented Performance, Critical Incident Performance, Deadline Meeting Performance, Innovative Performance, and Client Appreciated Performance.




SEIZE THE MOMENTS

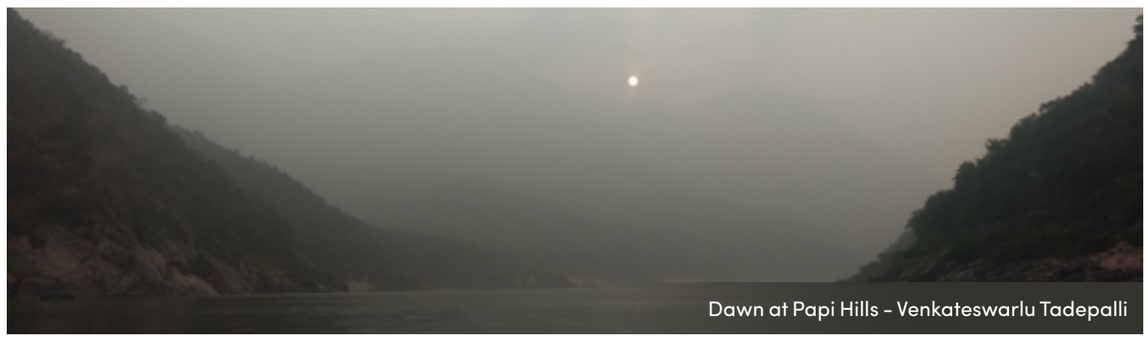
For some, photography is a passion; for some a profession; and for the rest, a way to capture a moment to be cherished all their lives. Heading with the idea of seizing the moment, Freyrians have shared some breathtaking moments captured in their cameras with us.

ENJOY THE SNAPSHOTS.

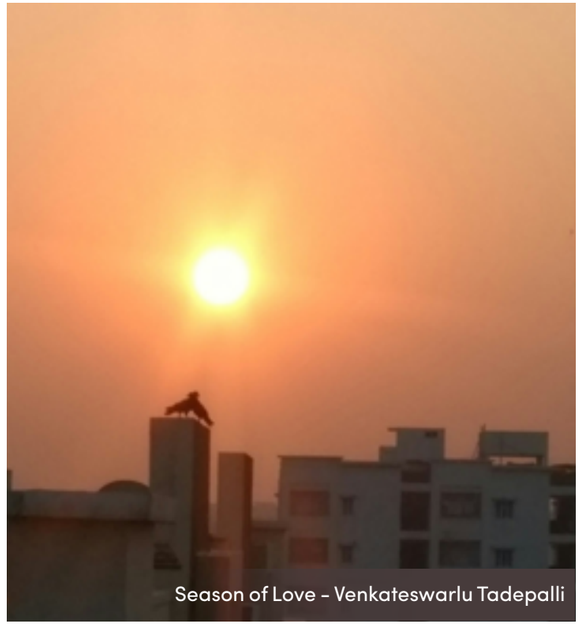
Shyamala Perla

Aamer Mohammaed

Saurabh Gupta



Dawn at Papi Hills - Venkateswarlu Tadepalli



Season of Love - Venkateswarlu Tadepalli

Suchitra Sivadas

Suhasini Addepalli

Flight of an Angel - Shaik Tasleem Mohammed

Shriharsh Bijargi

Sandeep Vikranth

FREYR FESTRONIX 2016

SPORTS SHOWS SAGAS

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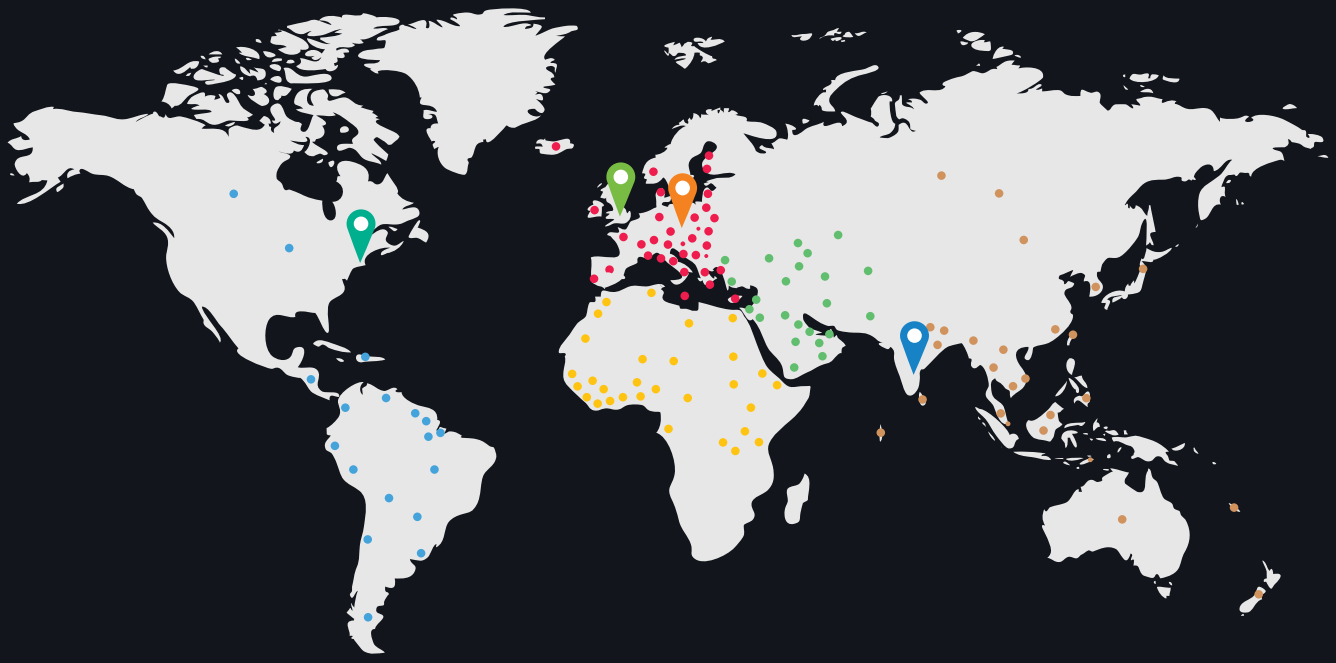
Headquartered in New Jersey, USA, Freyr is a specialized full-service global Regulatory Solutions and Services Company and a specialist Consulting, Operations & Technology Services provider, exclusively focusing on the entire Regulatory value-chain of Bio-Pharma (Innovators/Generics), Consumer Healthcare and Medical Device organizations, globally.

Freyr is a Strategic Regulatory Solutions & Services Partner to 6 of the Forbes Global Top 10 Pharma, 3 of the Forbes Global Top 7 Healthcare, 2 of the Forbes Global Top 6 Biotech and many $1 Million to $10 Billion Fast growing global Life Sciences, CROs and Standards Companies.

Exclusively focusing on the entire Regulatory value-chain, Freyr leverages its Regulatory healthcare domain expertise and technology innovations to evolve hi-end next generation regulatory solutions and services that enable accelerated performance, operations excellence and significant cost of compliance benefits to clients while approaching for successful complaince

Freyr is one of the few global companies to have pioneered specialized Centers of Excellence (CoEs) exclusively focusing on the entire Regulatory value-chain which are supported by rapidly growing global teams of 400+ Regulatory Professionals. Freyr's Global Operations, Delivery and Development Centers are ISO 9001 Certifed for Quality Management and ISO 27001 for Information Security Management. Freyr has an extensive global Regulatory Affiliate Network spanning 120 countries to offer best-in-class local and regional Regulatory support services to global companies.



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