

PROTECTING YOUR HEALTH THROUGH INNOVATION

Stock-taking Conference on Applications for Authorisation

Expanscience/EDC case

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PROTECTING YOUR HEALTH THROUGH INNOVATION

20 min talk - Plan

- Expanscience & EDC (Annex XIV).
- Dossier for EDC extended use authorization
- (Continuous) Improvement of EDC confinement
- Solvant Substitution process at Expanscience

Expanscience & EDC

Laboratoires Expanscience

- Family owned mid size company. Pharmacy & Cosmetic
- 1950, staff 1050, m€ 275 TO (55 % outside France)
- 17 subsidiaries, selling products in 90 countries
- MainProducts:



Skin care / babies + expectant mothers



Osteoarthritis of hip & knee / Elders

• Long term CSR policy:









Expanscience & EDC



EDC

- High affinity solvant for our APIs (active pharma Ingredients)
- Used for 20+ years with constant and >99% recycling
- Last production step warrants < 15 ppb = product

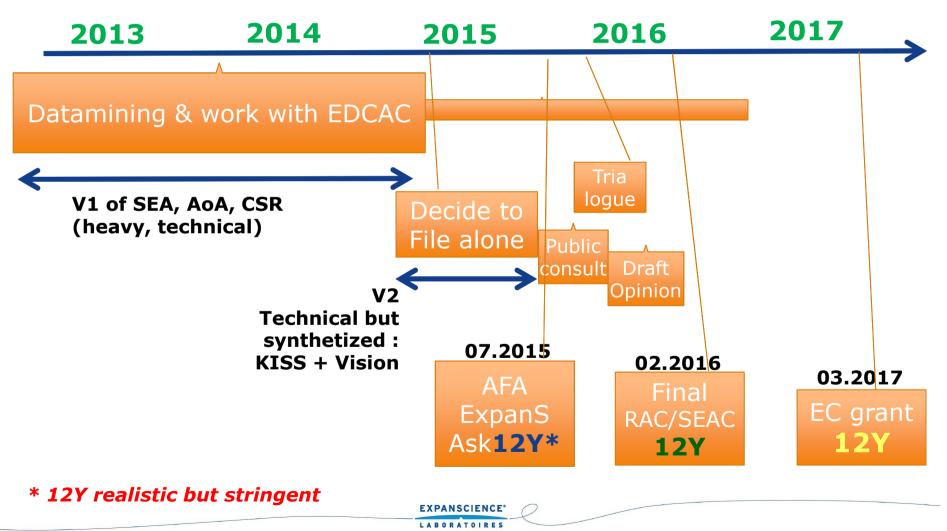


- CMR. Start to work on EDC substitution in 2007
- EDC now listed to Annex XIV.
- Solvant needing autorisation for use after Nov 2017
- Expanscience applied for autorisation in 2015, work on dossier since 2014.
- Part of EDCAC with 10-12 other companies of Europe. But decided to file alone.



Dossier for extended use authorization of EDC

workflow



Dossier for extended use authorization of EDC

+ & - of evaluation & filing

Plus / Benefit's

- Availability of unique contact, and commissions upon request
- Constructive & helpful commissions of experts
- Process is complex but clear
- Reach IT platform (not easy but all is there)

Minus / Concern's

- Delay for EC confirmation (13 Months): impacts substitution workflow & Investment.
- Rules change during process: Extention limit (12/15 to 20 y)
- UCLID versions changes, additional ressources



(continuous) improvement of EDC confinement

Equipment design improvements (change old ones)





(continuous) improvment of EDC confinement

Equipment based-improvements (sampling valves)

O





5 k€



EXPANSCIENCE® LABORATOIRES

Leakproof & airtight



(continuous) improvement of EDC confinement

Education based-improvements (training... Training... Training...)

- Work practices need to be revised and explained:
- Training program in place : annual & on demand
 - New workers: training on hire (usually easy)
 - Experienced « old » workers (usually more difficult)
 (I have done this way for decades & I know about it!)

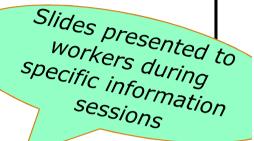
- Assessment of Workers exposition in real life working conditions
 - Static sampling 8h at work post.
 - Dynamic sampling 8h on worker
 - Spotted at risk event : short sampling 15 min on worker



(continuous) improvement of EDC confinement

- 3 mesures statiques 8h côté colonnes de lavage :
 - Valeur moyenne : 1,31 mg/m3 < 83 mg/m3
 - Probabilité de dépassement VME : <0,1%
- 3 mesures statiques 8h côté flot tombant :
 - Valeur moyenne : 0,78 mg/m3 < 83 mg/m3
 - Probabilité de dépassement VME : <0,1%
- 3 mesures dynamiques sur un poste de travail 8h (conducteur d'équipement) :
 - Valeur moyenne : 1,74 mg/m3 < 83 mg/m3
 - Probabilité de dépassement VME : <0,1%
- 2 mesures ponctuelles (15 min) sur prélèvements colonne de lavage :
 - Valeur moyenne: 4 mg/m3 < 208 mg/m3
 - Probabilité de dépassement VLE : <0,1%
- 1 mesure ponctuelle (15 min) sur conditionnement PIA + MIBK sortie Flot tombant:
 - Valeur: 9,54 mg/m3 < 208 mg/m3
 - Valeur < 10%VLE : probabilité de dépassement faible

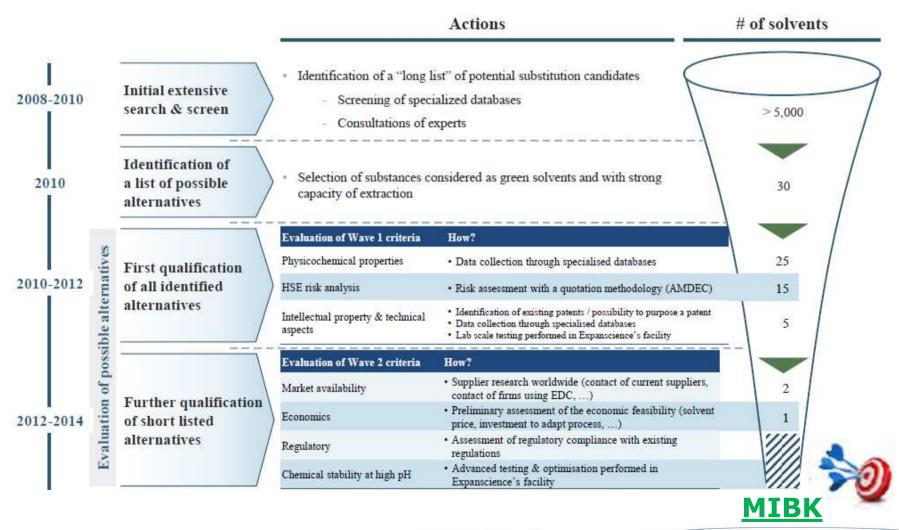
Résultats conformes





Substitution program

In pharma: a (very) long term story...



Substitution Program: where we are!



100 kg RM 500 g RM 10 kg RM Year 25 kg API **75 g API** 2 kg API **900 L MIBK 5 L MIBK 100 L MIBK** 2014 Lab bench Production scale (per week) - R&D tech R&D Pilot - Daytime work - visual monitorina - R&D tech 2015 - batch - Design scale up unit 24h / 4d - Revamp & Purchase - Semi automat. 2m€ monitoring - Install & qualify - Batch - Operator training - Analytics 2016 Semi industrial Pilot - Industry operators 24h / 5.5d 2017 **Explore** - Semi automat. MIBK monitoring - Continuous & batch Explore recipies Regene - Analytical methods ration 2018 **EXPANSCIENCE®**

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Substitution Program:

where we plan to be!

600 kg RM 100 kg RM Year 25 kg API 175 kg API **4000 L MIBK 900 L MIBK** 2019 Semi industrial Pilot Production scale (per week) - Validate all Raw Mat. - Validate solvant reuse 2020 Define / verify key Process parameters Solvant Stability studies Reaen. 2021 - Produce data for **Pilot** Pharma dossier - Transfer Ana methods Industrial line(s) 2022 to CO. - Design - build - Install & qualify - Operator training Interact w Regulatory 2023 Solvant 2024 Initiate continuous prod Regen. Validate line operations Unit 2025 Validate final Drug product - Document process changes 2026 for pharma dossier 2027 Product stability data 2028 **EXPANSCIENCE®**

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EDC to MIBK...

Give FEEDBACK to EChA!!

Thanks to the audience



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