



CAN FIRE PRODUCTS BE RE-USED?

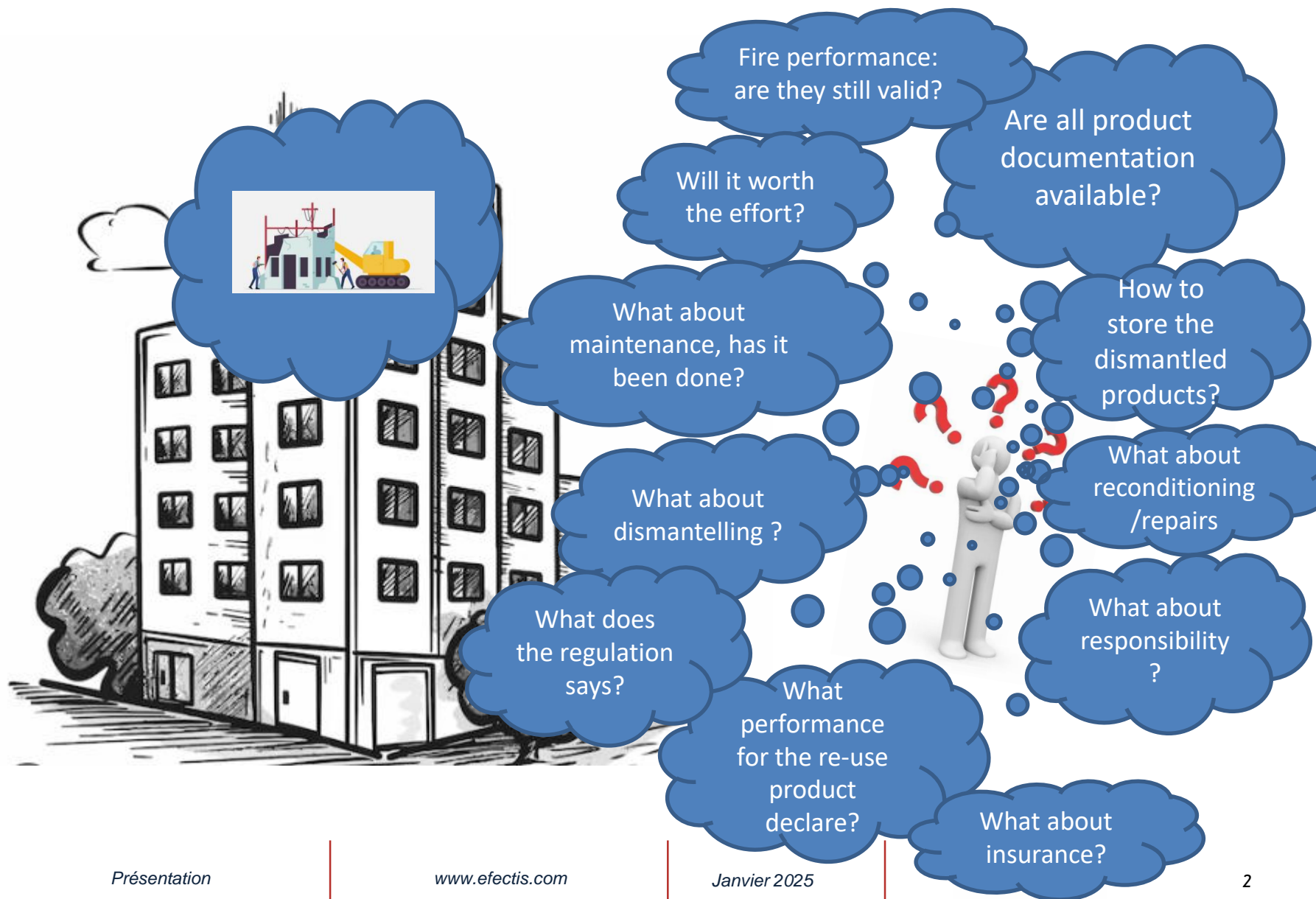
Yannick LE TALLEC

Efectis France

FIEP Technical Secretariat

Yannick.letallec@efectis.com

THE ACTUAL SITUATION ON EVALUATION



THERE ARE ADVANTAGES TO REUSE CONSTRUCTION PRODUCTS

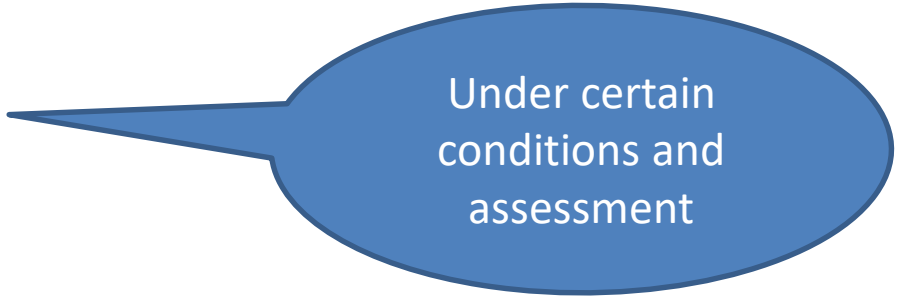
- **Environmental benefit**
 - Building sector = 46 Mt waste per year
 - Avoid usage of natural resources
 - Limit the logistic
 - The Carbon impact of a reuse material is considered as 0 in the LCA calculation
- **Economical benefit**
 - Opportunity for new local activities
 - removal from waste status = TGAP + waste treatment economy
- **Conformity with legislation**
 - France example: PEMD diagnostic mandatory for demolition project

CAN ALL FIRE PRODUCTS BE RE-USED ?

Not all products can be re-used
Some examples

YES:

Doorsets/windows
Suspended ceiling
Floorings (at elast some of them)
Smoke and heat exhaust systems
Wood panels
.....




Under certain
conditions and
assessment

MAYBE:

Insulation
Plasterboard
.....

NO:

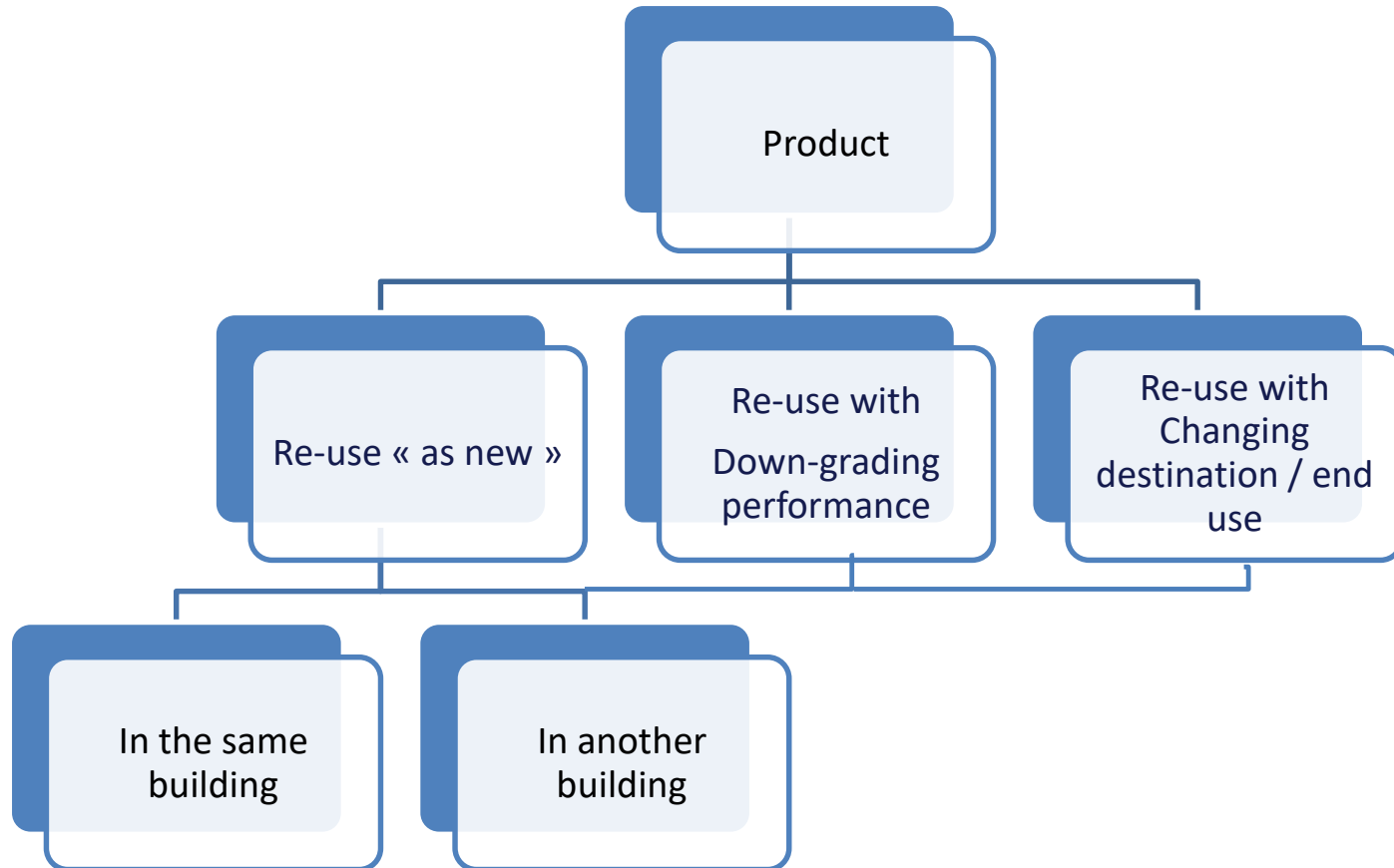
Fire protective products: rendering, intumescent paints
.....



Dismantling will
destroy the
product

WHAT TYPE OF « RE-USE » ?

What do we expect to do with the product ?



WHAT TO CONSIDER BEFORE AND FOR DISMANTLING?

Identification / Evaluation

- Visit on site: diagnostic before dismantling
- Listing of all products in terms of OK (including quantity) or NOK

Check

- Request documentations: test and classification reports,
- Manufacturer, installation and maintenance conditions/proofs, reparation of products during usage ?

Dismantling and storage conditions

- Objective: To maintain the product in conditions that they can be re-used
- Acceptable storage conditions

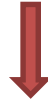
WHAT ABOUT FIRE PERFORMANCE ?

- To evaluate the fire performances of a product for re-use:
 - Detailed description of the products
 - Historical data: test and classification reports
 - ✓ Standards applied : EN, National, ect.
 - ✓ Evolution of the standard since : e.g. standard withdrawn, revised with impact on performances etc.
 - ✓ Data on durability available ?
- Assessment: Can we predict the performance of the « used product »?

Impact of evolution of the standard on the performances	<ul style="list-style-type: none">• Impact of gap analysis• Done anyway when incorporating a new standard
Impact of ageing related to its use	<ul style="list-style-type: none">• Need to have data on durability• Need to know the history of the installed product
Assess the performance of the disassembled product	<ul style="list-style-type: none">• Full documentation assessment• Assessment supported by testing

DO WE NEED NEW FIRE TEST METHODS ?

Full documentation assessment will not always be possible



Need to consider testing



Perform "new fire tests"

Specific fire tests: e.g. bench scale test

"Non fire" tests

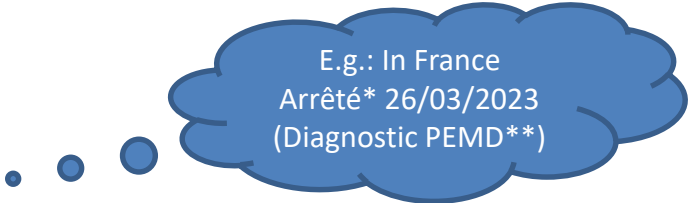
- Need to have a sufficient number of products
- Who will be the owner of the reports ?
- Additional cost
-

- Performance to be considered
- Correlation with the "test of reference" ?
- Test method(s) already available ?
-

- Is it a possibility ?
- What type of tests ?
-

WHAT ELSE?

- Is there a real appetite for re-use products ?
- Is there a re-use network ?
- Is there requirements in some Member state :
 - % of re-used products in a new built ?
 - Specific requirments in termes of performance?
 -
- How can we/ Do we need to list products than can be potentially re-used?
- Is there a need for standardisation ?
 - Way to assess products for re-use
 - Addapted test methods
 - New test methods
 - Durability evaluation to be included in the inital evaluation:
 - ✓ Scenario to consider
 - ✓ Specific classification
 - ✓



E.g.: In France
Arrêté* 26/03/2023
(Diagnostic PEMD**)

* For building with floor area above 1000 m²

**PEMD= product – équipement- material and waste



THANK YOU
