



Second meeting

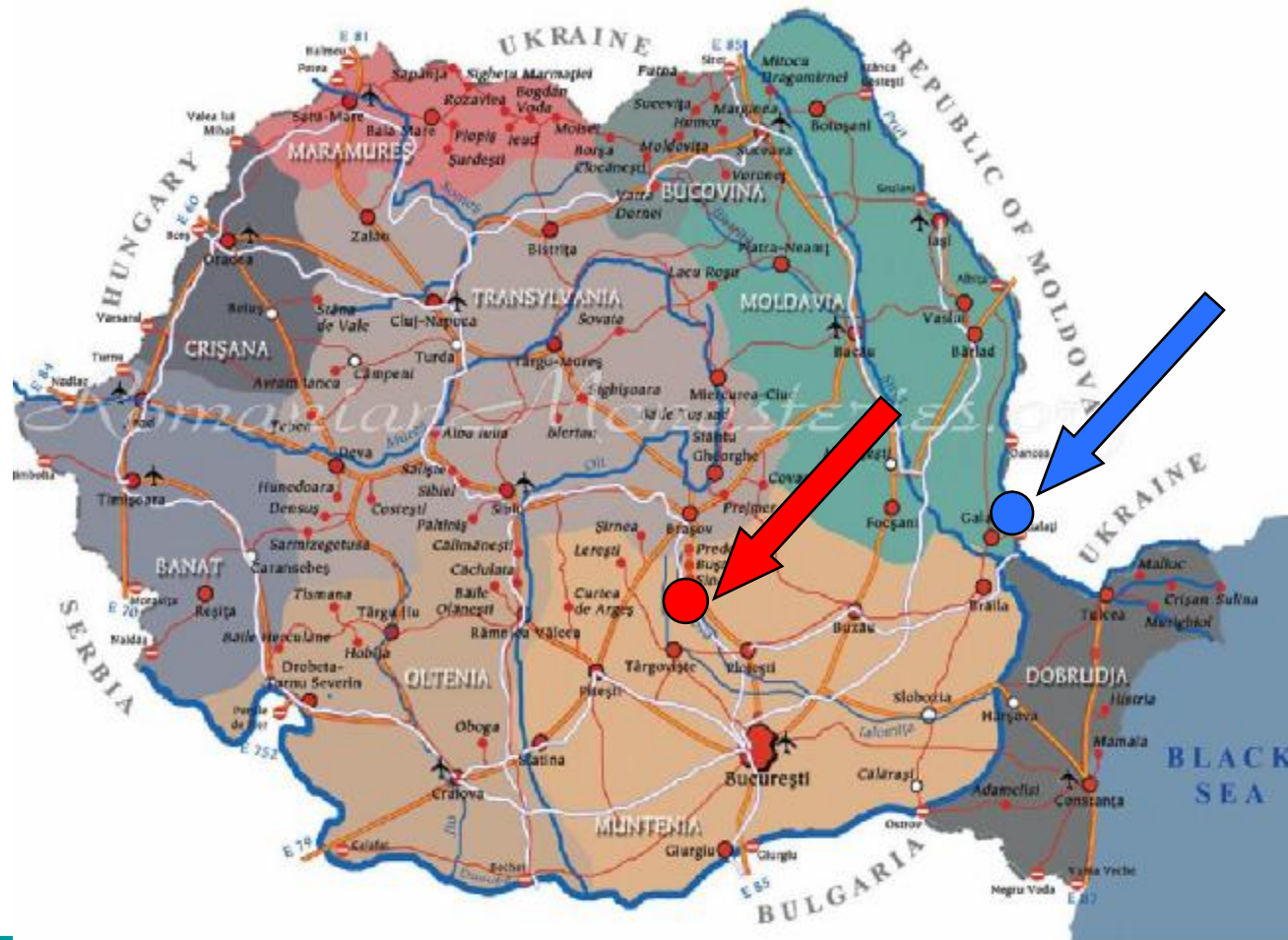
Sinaia - Romania

14-17 sept 2011

**LEONARDO DA VINCI Transfer of Innovation Program
PROJECT “Supporting system for non-formal and informal
learning for low-skilled workers”**

Sinaia

- n Sinaia is about 120 km North of the capital Bucharest, on the Prahova valley



PLAN

- n **On-line course structure**
- n **Course design aspects**
- n **Multilingual presentation issues**
- n **Site and course administration issues**

On-line Course structure

- n **The original COURSE in word format**
- q **Some views**

Learning units

1. Identification of materials used in Technology of Interior Drywall Systems
2. Installation of partition wall systems
3. Installation of wall lining systems
4. Installation of dropped ceiling systems
5. Installation of roof lining systems
6. Installation of dry screed systems

**Instytut Technologii Eksploatacji – Państwowy Instytut
Badawczy - Radom**

On-line Course structure

n COURSE

q UNITS

n Introduction

n Prerequisites

n Learning objectives

n REFERENCE MANUAL

q CHAPTERS

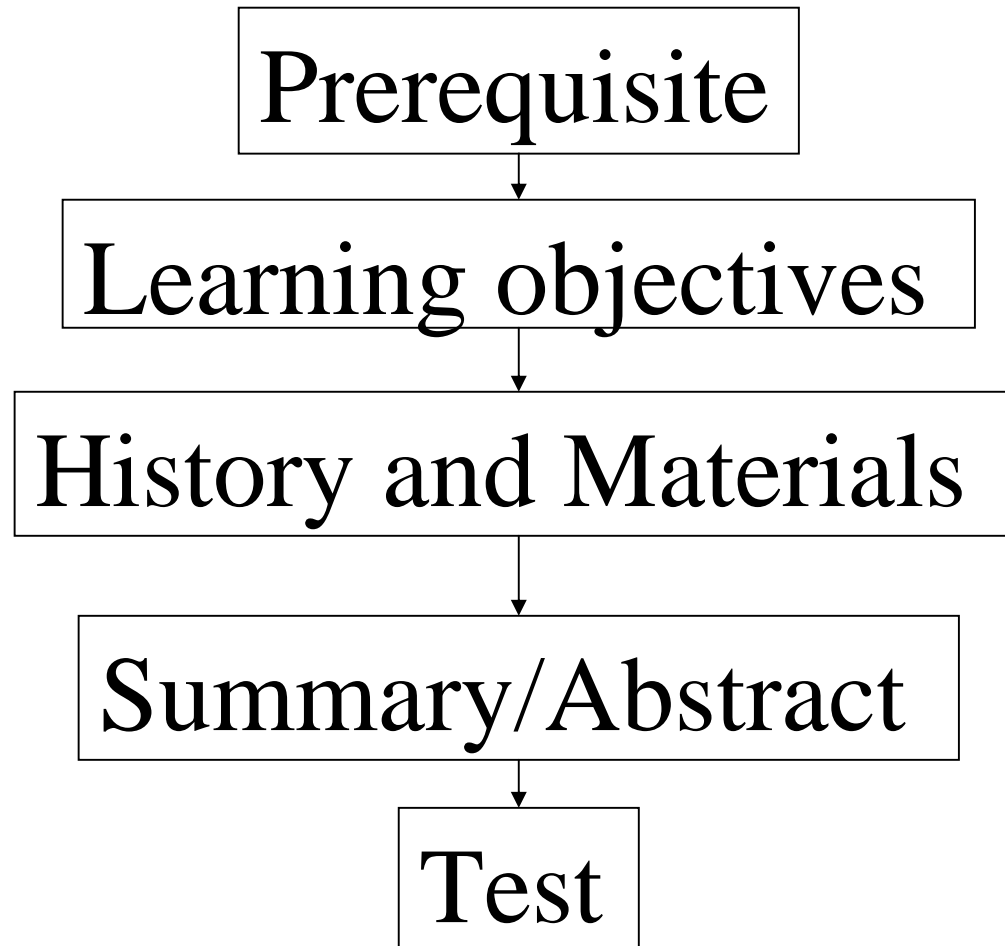
§ Lessons

§ Revision questions

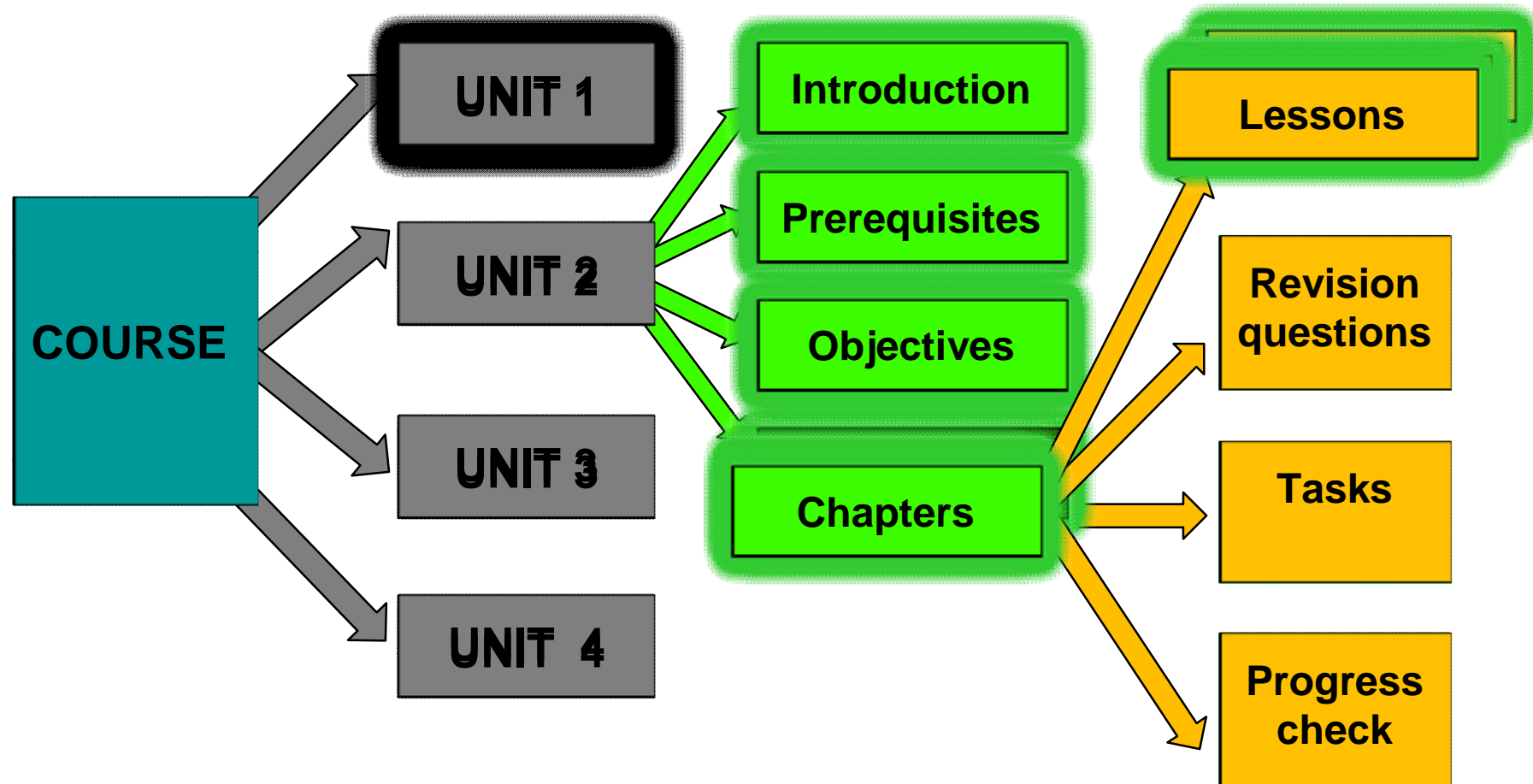
§ Task list

§ Progress check

Structure of each unit



On-line Course structure



Structure example for first unit

- n Chapter 1 - Gypsum
 - q History of gypsum
 - q Gypsum as a mineral
 - q Gypsum binder – production methods
 - q Gypsum binder – binder types
 - q Chemical and physical properties of gypsum
 - q Applications of gypsum in the building industry

Structure example for first unit

- n Chapter 2 -Plasterboard
 - q History of paper-based plasterboard
 - q Plasterboard manufacture
 - q Basic characteristics of plasterboard
 - q Type of paper-based plasterboards (drywalls)
 - q Plasterboard edge variations
 - q Cut edges
 - q Transportation and storage of plasterboards

Structure example for first unit

- n Chapter 3 - Accessories
 - q Steel profiles used in Technology of Interior Drywall Systems
 - q Storage of steel profiles
 - q Accessories for steel profiles
 - q Screws used in Technology of Interior Drywall Systems
 - q Tools used in Technology of Interior Drywall Systems

Structure example for first unit

- n Chapter 4- Materials for finishing works
 - q Materials for finishing works - Joint compounds
 - q Materials for finishing works - Tapes
 - q Materials for finishing works - Gypsum plaster
 - q Materials for finishing works - Gypsum adhesives
 - q Materials for finishing works - Floor bases for screeds
 - q Materials for finishing works - Mineral wool

On-line Course structure

n Lesson content

q A chunk of information on one screen or a little bit more

q Navigational objects

n next, previous,


n buttons to access other contents in chapter, unit, course

q Orientation objects

n Titles : lesson, chapter, unit

n Position in lesson's list

On-line Course structure



Supporting system for non-formal and informal learning

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Chapter 1

Lesson 3
Gypsum binder - production methods

Chapter Content

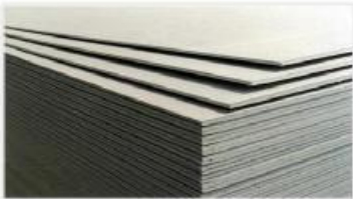

A traditional raw-material for the gypsum binder production is the natural gypsum rock containing 80-95% of calcium sulfate dihydrate. As a result of roasting the crushed gypsum rock at the temperature of 160 - 180°C a binder is obtained, which is a binding material including mainly hemihydrated gypsum and some amounts of other mineral phases (anhydrite, soluble CaSO₄ III, insoluble anhydrite CaSO₄ II) – depending on the roasting equipment and the thermal process. Recently synthetic calcium sulfate dihydrates, like gypsum dihydrate, from flue gas desulfurization (a wet lime method) have been used for the gypsum binder production. The resulting gypsum differs from natural gypsum in its form (very fine grain) and crystal structure. Transforming it into a building binder requires suitable preparations and specially adjusted equipment. In the building industry, building gypsum is a commonly used gypsum binder. Its characteristics are conformable with the requirements of the Polish construction standard PN-B-30041:1997 and is manufactured in 2 variations:

- GB-G, coarse-grained gypsum – intended for the production of pre-fabricated elements, plaster mortar and gypsum-concrete
- GB-D, fine-grained – used mainly for decorations and stuccowork, special construction components and as a mortar binder.




Standardized gypsum binders include also special gypsum of targeted application. They include: products of gypsum dihydrate roasting and appropriate mineral additives controlling the binding time and characteristics of the hardened material, whose properties as well as requirements are given in the PN-B-30042:1997 standard.

While applying gypsum materials in the building practice, one should have a very good knowledge of their characteristics and appropriate skills to apply them which would enable one to take full advantage of the product's favorable characteristics. Possibilities of the wide use of gypsum in the building industry result from many favorable characteristics that this material possesses.


Gypsum binders are ecologically clean materials, of short binding and setting times, so they are effective fairly rapidly, allow to perform building works quickly and easily, produce building elements of different sizes, create any shapes. Their advantages include white color, possibility of obtaining smooth surfaces and decorative patterns.

Previous
Unit 1 - Chapter 1 - Lesson 3 of 5
Next

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Course design aspects

RADU presentation

Discussions, comments, remarks

Multilingual presentation issues

WHO will introduce the **on-line content** in polish and italian ?

Romanian team proposal

Discussions, comments

Site and on-line course administration issues

HOW many users ?

- Students, teachers, administrators
- Role and privileges of users

Romanian team proposal

Discussions, comments, remarks