



Use of EN Drying Quality Standards



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Joint COST E53 Workshop / EDG Seminar in Riga 2007



Looking backwards

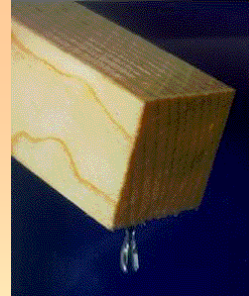


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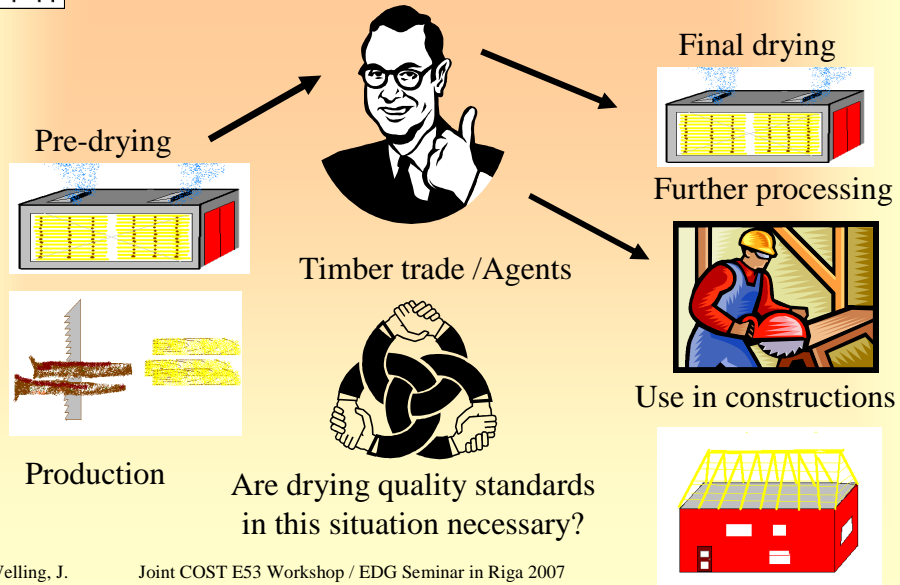
Looking backwards



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Current situation



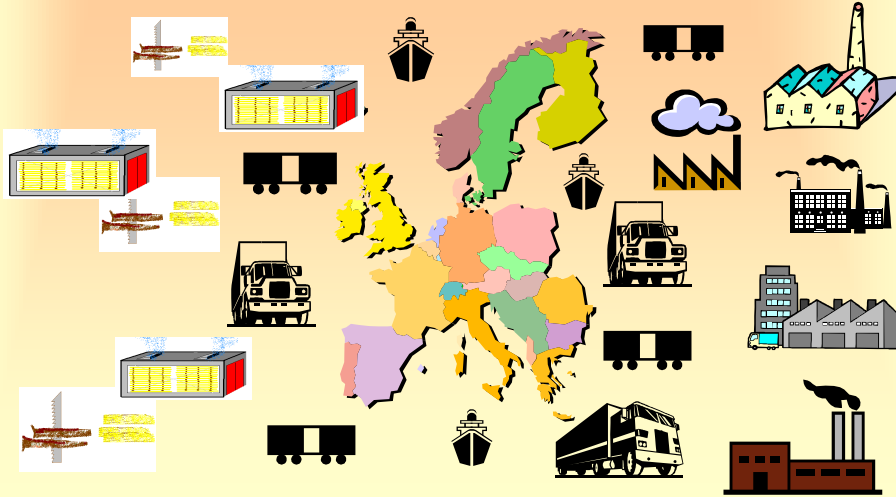
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Current situation



Many producers / transport all over Europe / many users



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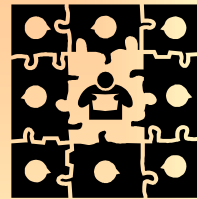


Current situation

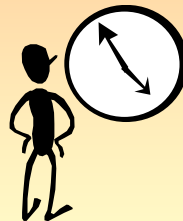


Agents loose their clients

Just-in-time delivery of smaller quantities



Direct contracts between producer and user of sawn timber



Drying quality adapted to end use requirements for products which are fit for purpose

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Current situation



- Moisture content is a key quality indicator for the application of sawn timber.
- In many wood product standards moisture content is specified.
- But, MC specification in product standards are either
 - too strict to be met by industrial drying processes
 - or
 - insufficiently defined.
- MC specification in product standards can hardly be checked by statistical quality control methods.

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EDG activities



- 15 years ago the European Drying Group (EDG) was formed.
- EDG introduced the idea of drying quality.
- In 1994 the „EDG Recommendation on Assessment of Drying Quality“ was published.
 - The term drying quality was defined.
 - A system to specify MC requirements was described.
 - Drying quality control based on statistical fundamentals was proposed.
- EDG recommendation was translated into most European languages.
- In 1995 EDG members joined working groups in CEN TC 175 to support the edition of European standards related to drying quality.

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CEN activities related to drying



Methods for measurement and estimation of properties related to drying quality of sawn timber

prEN 13183 Determination of moisture content
Part 1 (Oven dry method)

Part 2 (Electrical resistance method)

Part 3 (Capacitance method)

prENV 14464 Method for assessment of casehardening

Definition of drying quality and description of an appropriate statistical quality control scheme

prEN 14298 Assessment of drying quality

TS 12169 Criteria for acceptance of a lot of sawn timber

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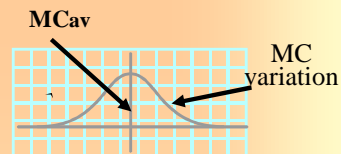
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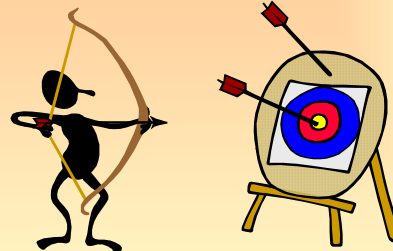
Features of drying quality standard



- In each kiln load moisture content varies around a mean value



- All kiln operators have problems with exactly hitting target moisture content



2 parameters are needed to describe drying quality

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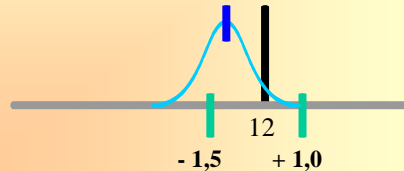
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Drying quality specification system



- MC target is a key value
- Average MC must be within a +/- range around target MC
- Moisture variation (expressed as % of pieces within given limits $0,7 * MC_{\text{targ}} / 1,3 * MC_{\text{targ}}$)



Kiln load complies to the specification if **both** requirements are satisfied

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Content of prEN 14298



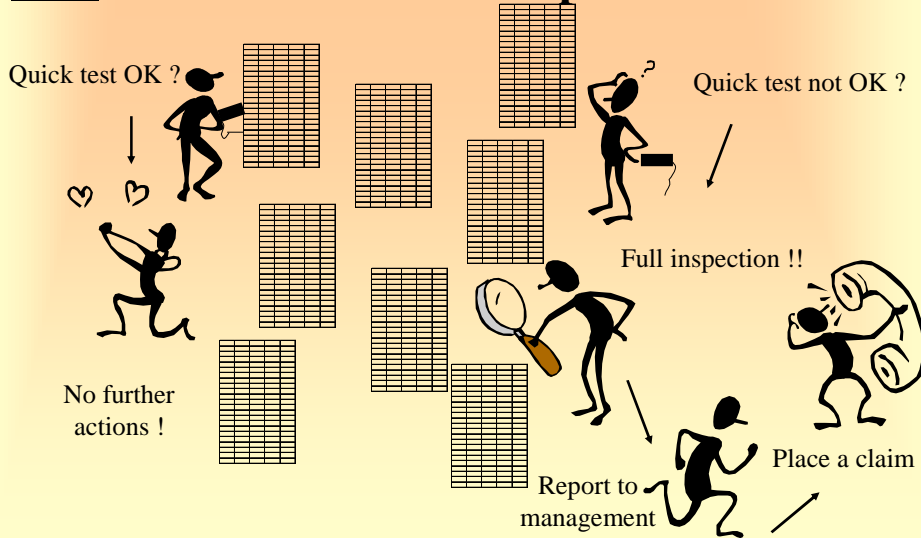
- Definition of standard drying quality
- Tables for +/- range and allowable variation of MC
- Description of test procedure
 - number of pieces to be tested
 - number of packages to be opened
 - random sampling
 - expression of results
- Assessment of conformity

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Inspection and quality control in industrial practice

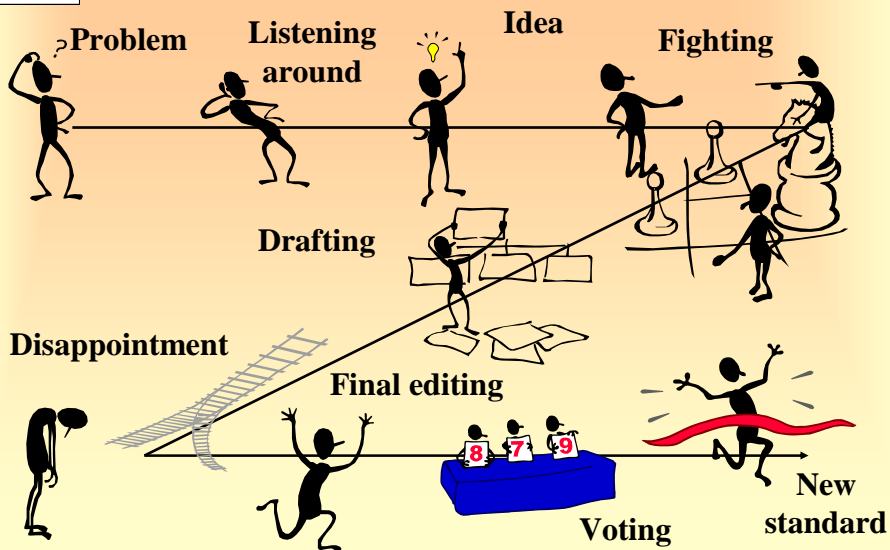


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How a CEN standard is born



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And when we finally have
a new standard, what do we hear?

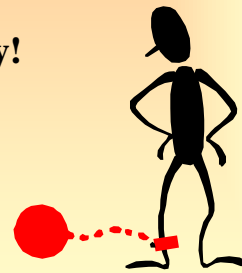


Too complicated!



Please, no changes!

Too costly!



Let's keep our traditions !

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Summary / conclusions



- A system of standards for specification and assessment of drying quality of sawn timber is available now.
- Practitioners must be trained and the new system must be introduced into industrial practice.

→ Please remember !

**Additional quality can not be expected at zero cost !
Customers have to accept that they have to pay more
for guaranteed quality and added value.
Improved drying quality will have an overall positive effect
on the use of sawn timber.**

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