



**EASA**  
European Aviation Safety Agency

# The Impact Assessment

## Costs to ATOs

Tedd Pinkney  
CTKI CAE Oxford Aviation Academy  
15 June 2016

**Your safety is our mission.**

An agency of the European Union 

TE.GEN.00409-001



# Introduction

- The new learning objectives would require a major rewrite of ATO syllabi
- All courseware would need to be updated, including, but not limited to:
  - Lesson plans
  - Programmes
  - Manuals
  - Tests
  - Exams
  - CBT



# Introduction

- TKIs would need to be brought up to date. This would include:
  - Learning the new syllabus
  - Learning the techniques required to administer 100 KSA training
  - Being evaluated as suitably qualified to teach/assess



**NB. No data has been collated on fees payable to NAAs for the acceptance of revisions to Training Manuals as these differ from NAAs within EASA.**



Expenditure may be required to purchase hardware to deliver new types of learning material specifically for 100 KSA

Considerable stationary resources may be required

However these could be considered to be ongoing costs involved in maintaining ATO training standards

The major costs involved would be man-hours



# Man-hour cost estimates

Source: IAAPS

Proposed options	Option 1	Option 2
Sector and task	Update LOs of Subjects 010 to 090 only	Update the 010 to 090 LOs and the Area 100 KSA LOs
Larger ATOs		
<b>Presentations</b>	<b>1 month EUR 5 000</b>	<b>1 month EUR 5 000</b>
<b>Lesson exercises</b>	<b>1 month EUR 5 000</b>	<b>1 month EUR 10 000</b>
<b>Progress tests/exams</b>	<b>1 month EUR 5 000</b>	<b>1 month EUR 5 000</b>
<b>Assessment development</b>	<b>n/a</b>	<b>4 weeks EUR 5 000</b>
<b>TKI professional development/training</b>	<b>each TKI 5 days (EUR 1 000/TKI) e.g. EUR 10 000</b>	<ul style="list-style-type: none"> <li>— each TKI 5 days (EUR 1 000/TKI), e.g. EUR 10 000;</li> <li>— each TKI 2 days (EUR 500/TKI), e.g. EUR 5 000;</li> <li>— each assessor (4 assessors) 2 days, e.g. EUR 2 000</li> </ul>
<b>Training, operations and management system manuals: course outline, lesson plans, course processes and procedures</b>	<b>3 months EUR 15 000</b>	<b>3 months EUR 15 000 + 1 week EUR 1 250</b>
<b>Total per larger ATO</b>	<b>EUR 40 000</b>	<b>EUR 58 250</b>



# Man-hour cost estimates

Source: IAAPS

Proposed options	Option 1	Option 2
Sector and task	Update LOs of Subjects 010 to 090 only	Update the 010 to 090 LOs and the Area 100 KSA LOs
<b>Small ATOs</b>		
<b>Presentations</b>	2 weeks EUR 2 500	2 weeks EUR 2 500
<b>Lesson exercises</b>	2 weeks EUR 2 500	4 weeks EUR 5 000
<b>Progress tests/exams</b>	2 weeks EUR 2 500	2 weeks EUR 2 500
<b>Assessment development</b>	n/a	2 weeks EUR 2 500
<b>TKI professional development/training</b>	each TKI 5 days (EUR 1 000/TKI), e.g. EUR 3 000	— each TKI 5 days (EUR 1 000/TKI), e.g. EUR 3 000; — each TKI 2 days (EUR 500/TKI), e.g. EUR 1 500; — each assessor (2 assessors) 2 days, e.g. EUR 1 000
<b>Training, operations and management system manuals: course outline, lessons plans, processes and procedures</b>	2 months EUR 10 000	2 months EUR 10 000 + 1 week EUR 1 250
<b>Total per small ATO*</b>	<b>EUR 20 500</b>	<b>EUR 29 250</b>

\* The smallest impact will be on ATOs providing IR, EIR and/or CBIR(A) courses only.  
This is due to the smaller number of affected LOs and no Area 100 KSA requirement.



# Man-hour cost estimates

The previous conservative estimates would be based on producing low level media (such as PowerPoint or Smart)

For Computer Aided Instruction, or Computer Based Training processes, using Subject Matter Expert (SME) to produce content, and Developers to produce the product in Lectora/Moodle etc.





# Man-hour cost estimates (010 – 090)

Estimated 210 SME man-hours per subject and  
900 developer man-hours for the subjects with  
major changes (AL OP FP GN)

70 SME hours/300 developer hours for the other 9

€34 550 for the SME

€96 925 for the developer!!

=

€131 475!



# Man-hour cost estimates

Developer costs quoted on the previous slide are for European based media teams. Subcontracting elsewhere could reduce production costs by typically 66% thereby reducing the total to

€67 000

An ATO producing their own books would be looking at a similar figure for the SME, and in the region of  $\frac{1}{3}$  of that figure for the developer

(€67 000 developed in Europe,  
€47 000 outsourced)



# Conclusion

These would be one-off costs spread over the lead in time of 12-18 months

€20 000 for a small ATO updating lessons and TKIs

€131 000 for a large ATO producing bespoke “all singing all dancing” courseware.

€67 000 for the production of books



**EASA**  
European Aviation Safety Agency

**Thank you!**

**Your safety is our mission.**

An agency of the European Union

