

Education and Training

Passing on Knowledge



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Management of Risk

What are the risks?

Do we understand the risks?

What can we do to understand risks?

How can we mitigate risks?

Management of Risk

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Do we understand the risks?

What can we do to understand risks?

How can we mitigate risks?

What is at risk?



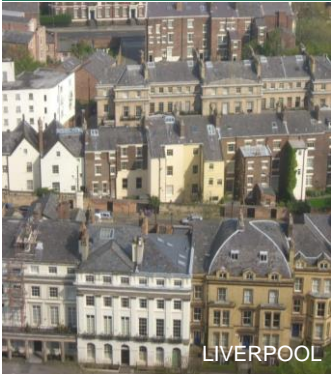
What's at Risk



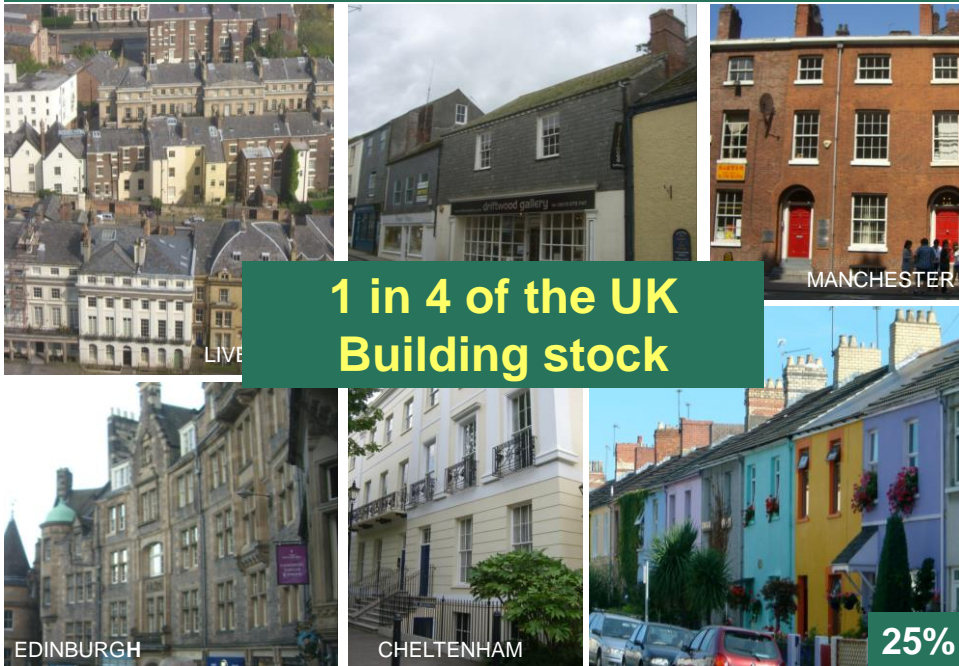
Up to 600,000 Listed Buildings/Monuments



What's at Risk



What's at Risk



Management of Risk

Are we managing the risk?

**Are we retrofitting with knowledge
of the risks?**

**Have we properly completed the
retrofit risk register?**

Management of Risk

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***The need for appropriate
knowledge and expertise***

Headlines...

***“The UK has the oldest
building stock in the
western world with
about a quarter
traditionally built”****

**22% pre 1919 plus an estimated % up to 1930 with solid breathable walls*

Headlines...

*“If we repair traditional buildings with modern materials and techniques we will inhibit their breathability – **this can lead to accelerated deterioration and greater heat loss**”.*

Headlines...

*“Research has shown that existing **single glazed windows can easily be upgraded to provide better U Values than provided by replacement modern double glazed windows** – costing less and a greener approach”*

Headlines...

“Damp walls – increase heat loss by up to 38% - keep buildings in good repair to save energy – this requires traditional repair work”.

Headlines...

“Published U Values for walls in traditional buildings are inaccurate – so you can’t properly design wall insulation without ruling out risks of interstitial condensation – damp walls increase heat loss”

Headlines...

“The actual U Values for walls in traditional buildings are better than those published on 73% of occasions – this may explain why EPC’s frequently underestimate the performance of traditional buildings”.

Headlines...

“If we ignore the facts and treat traditional buildings like modern ones, we risk wasting money on retrofit, increase use of energy, increase carbon output and put 6 million UK buildings at risk of accelerated decay”.

Headlines...

Are we noting the headlines?

**Are we retrofitting with knowledge
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***The need for appropriate
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Headlines...

Who needs to understand the risks?

- Government and its agencies
- Education sector – Universities to FE
- Sector Skills Councils
- Contractors – their Trade Federations
- Professions – Professional Institutions
- Others

Where is the Leadership?

The Professions

Who does this concern?

NHTG Research 2008

- **For mainstream professionals, 35% of their work is on pre 1919 buildings** whereby it equates to 76% of conservation or heritage specialists workload.

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Comment:

Most work to traditional buildings involves mainstream professionals not conservation experts. Mainstream sector is massive – conservation sector is tiny!

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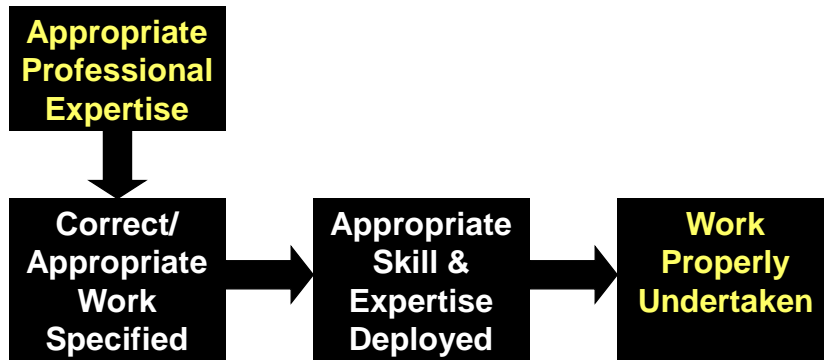
Comment:

Most work to traditional buildings involves mainstream professionals not conservation experts. Mainstream sector is massive – conservation sector is tiny!

UK is largely reliant on mainstream professionals - not traditional building experts

Getting Expertise into Use

Whose responsible?



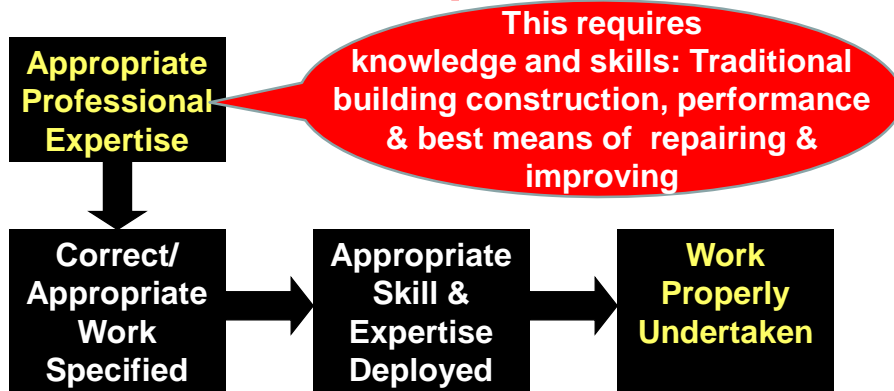
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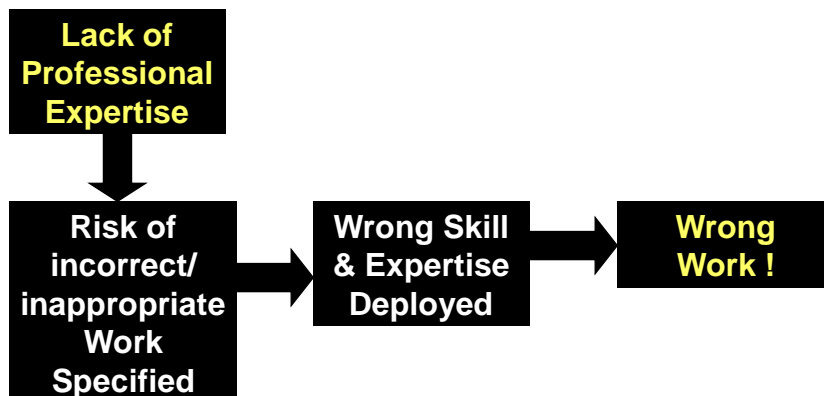
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The professions need to take responsibility?

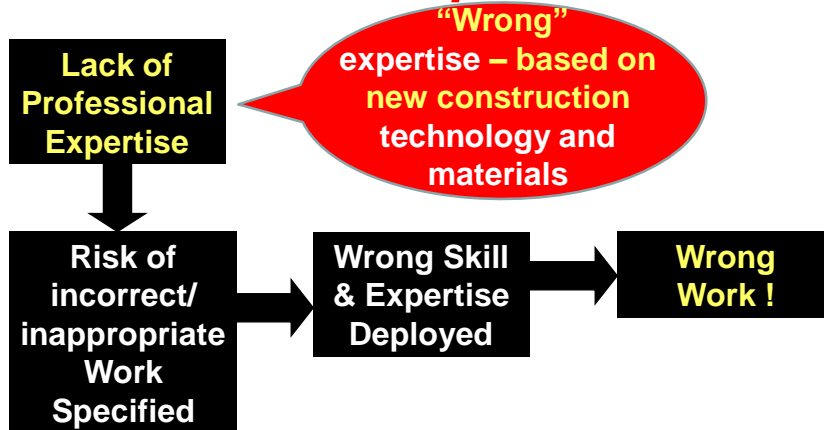
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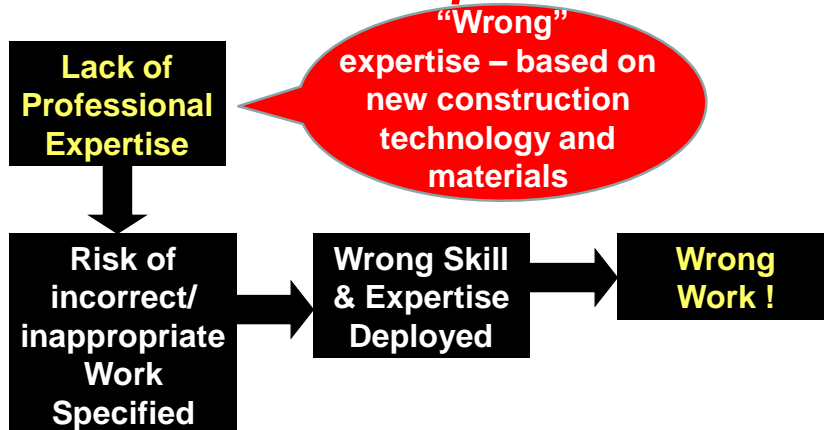
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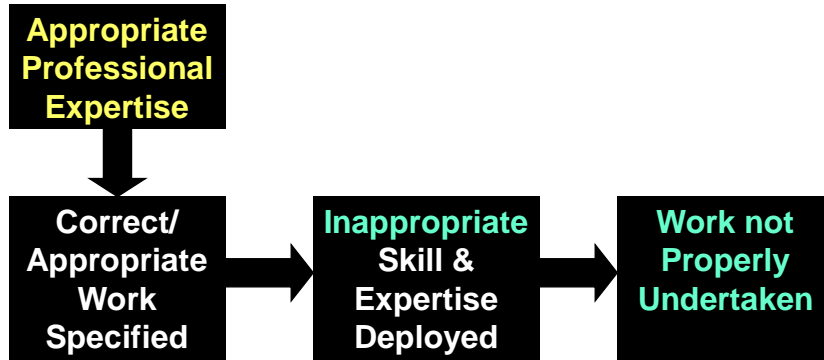
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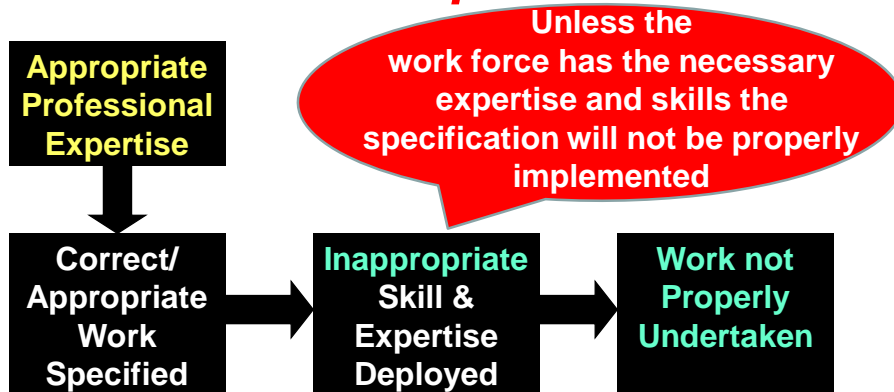
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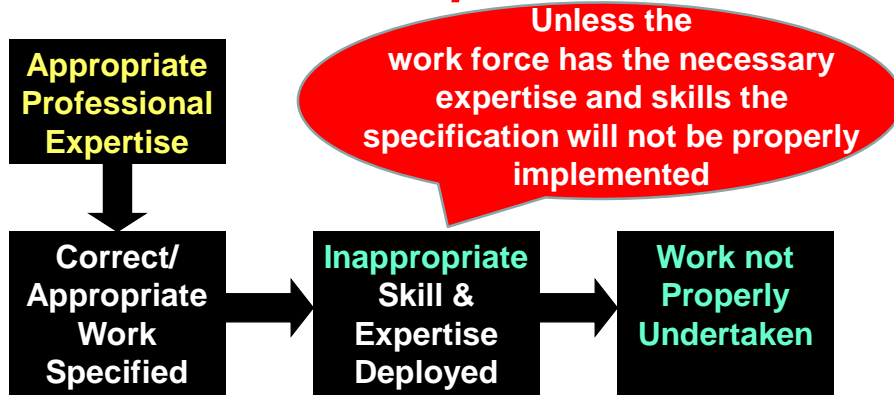
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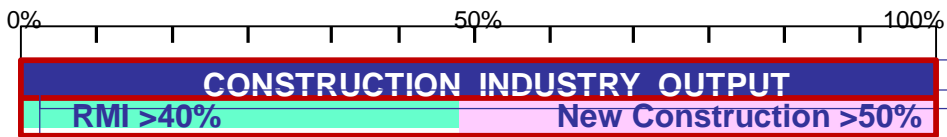
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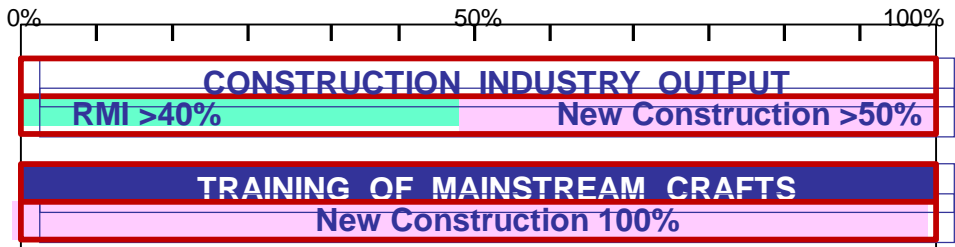


Crafts (Trade Federations, Sector Skills Councils) need to take responsibility?

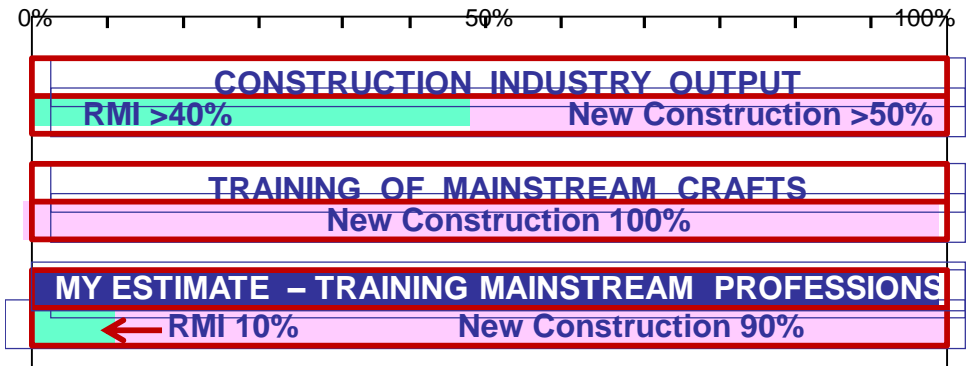
Comparing the data!



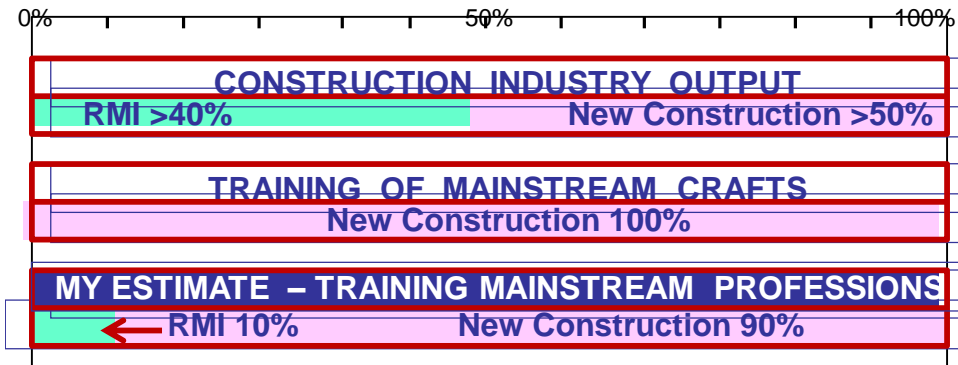
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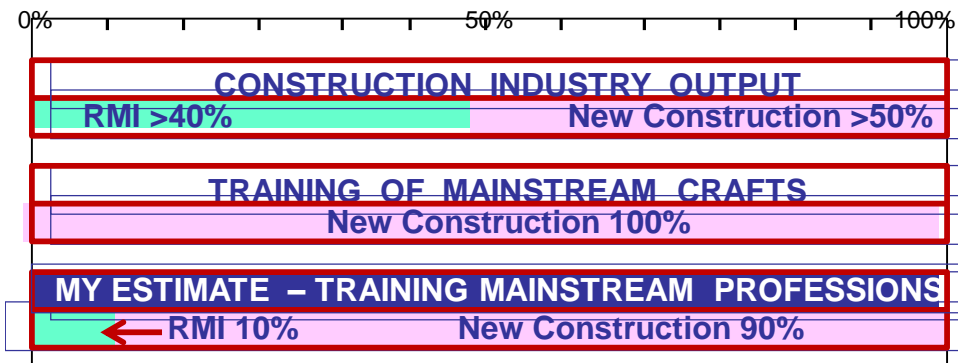


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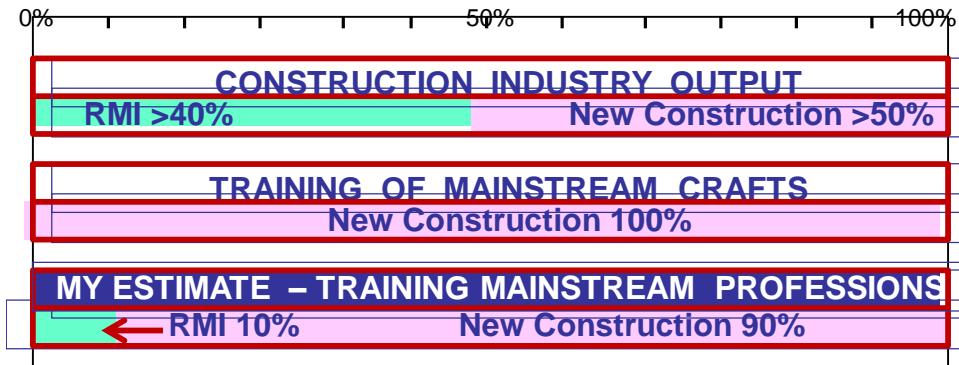
1. *Mis-match of training and education with what is required!*

Comparing the data!



1. *Mis-match of training and education with what is required!*
2. *Does this effect the normal UK approach to traditional buildings?*

Comparing the data!



Change is needed....

Management of Risk

- Government and its agencies
- Education sector – Universities to FE
- Sector Skills Councils
- Contractors – their Trade Federations
- Professions – Professional Institutions
- others

Where is the Leadership?

Who needs to change?

- **Government and its agencies**
- **Education sector – Universities to FE**
- **Sector Skills Councils**
- **Contractors – their Trade Federations**
- **Professions – Professional Institutions**
- **others**

Where is the Leadership?

Who needs to change?

Government and its agencies

1. **Recognise the facts (headlines and data)**
2. **Ensure that actions are proven to sustain traditional buildings and will deal with climate change – without proof we have risk!**
3. **Ensure that the ‘Green Deal’ contains work to existing building fabric as accredited works.**
4. **Provide well informed leadership.**

The ‘Green Deal’ could provide an incentive for up skilling in traditional crafts – but!

Who needs to change?

Education Sector

1. Develop sufficient expertise to educate and train in what is REALY required.
2. Develop professional / technical courses that match the requirements of industry output and the UK building stock.
3. Initial craft training to include RMI (with traditional buildings).
4. Develop up skilling for professions and crafts

Who needs to change?

Sector Skills Councils

1. Recognise - craft skill training in new construction does not provide all the necessary skills that industry needs.
2. Recognise – education mainly on new constructor does not meet all the demands of existing buildings.
3. Promote best practice - what is REALLY required
4. Ensure that all craft skill training up to NVQ 2 includes some RMI.
5. Further up skilling.

Who needs to change?

Trade Federations

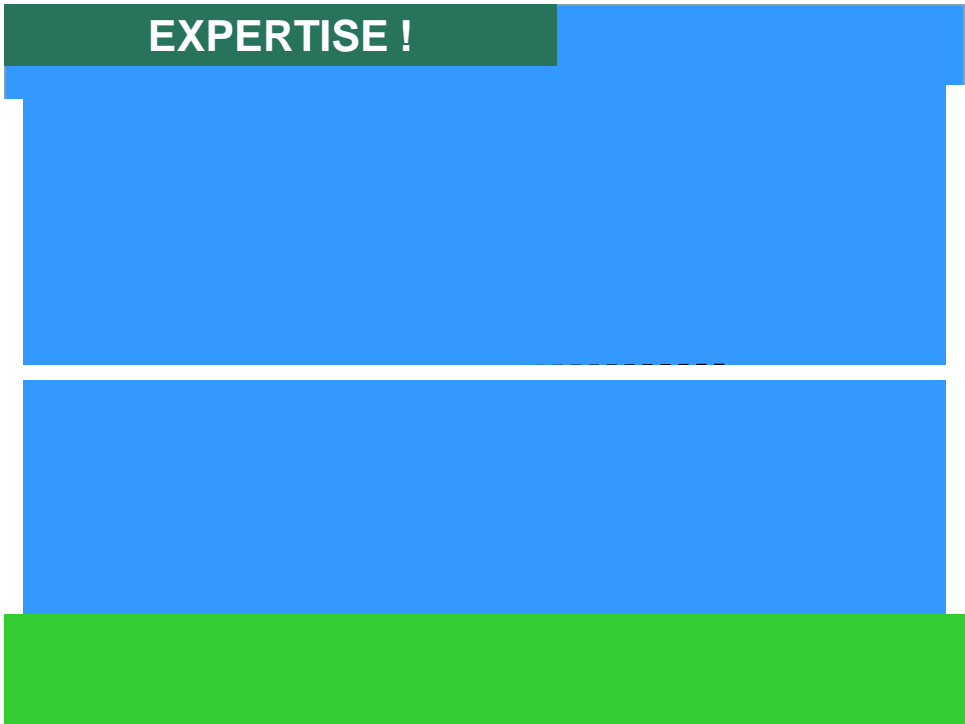
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4. Develop up skilling for management and crafts.

Who needs to change?

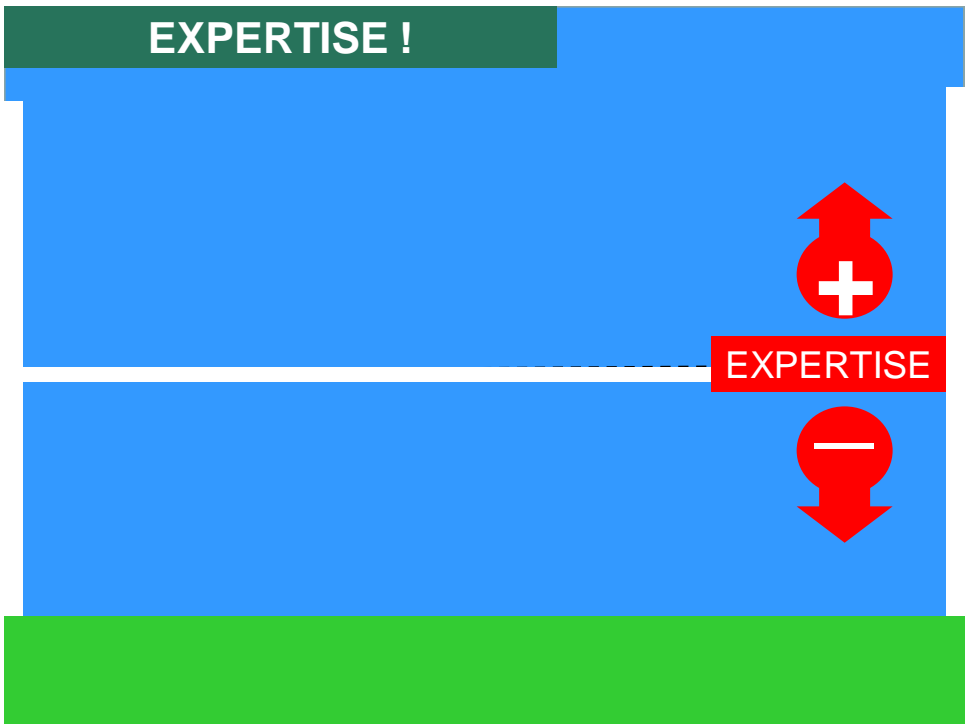
Professional Institutions

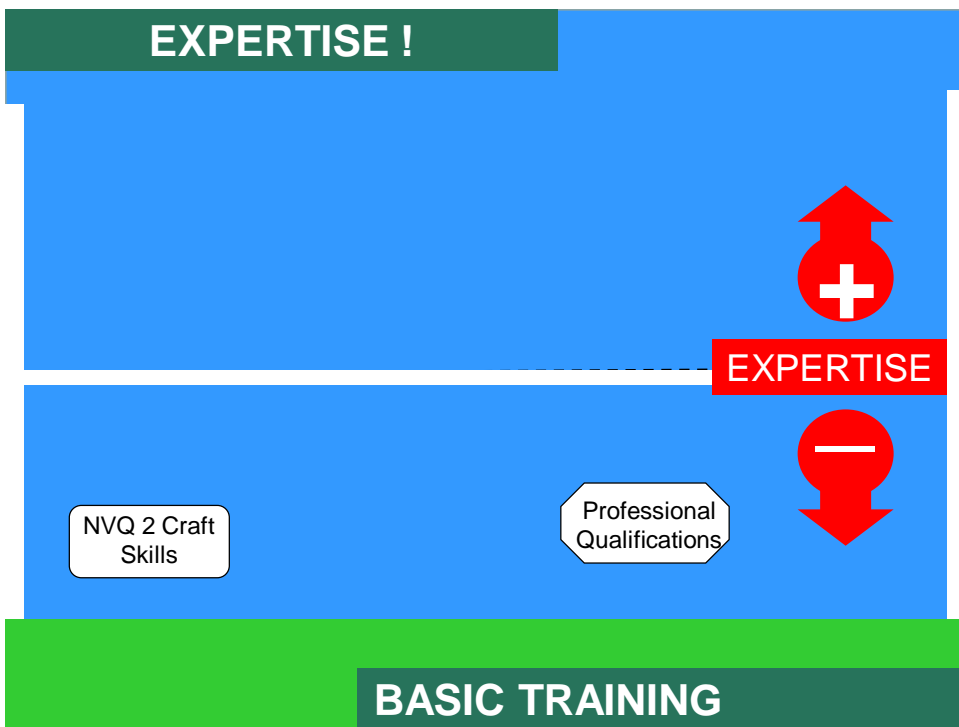
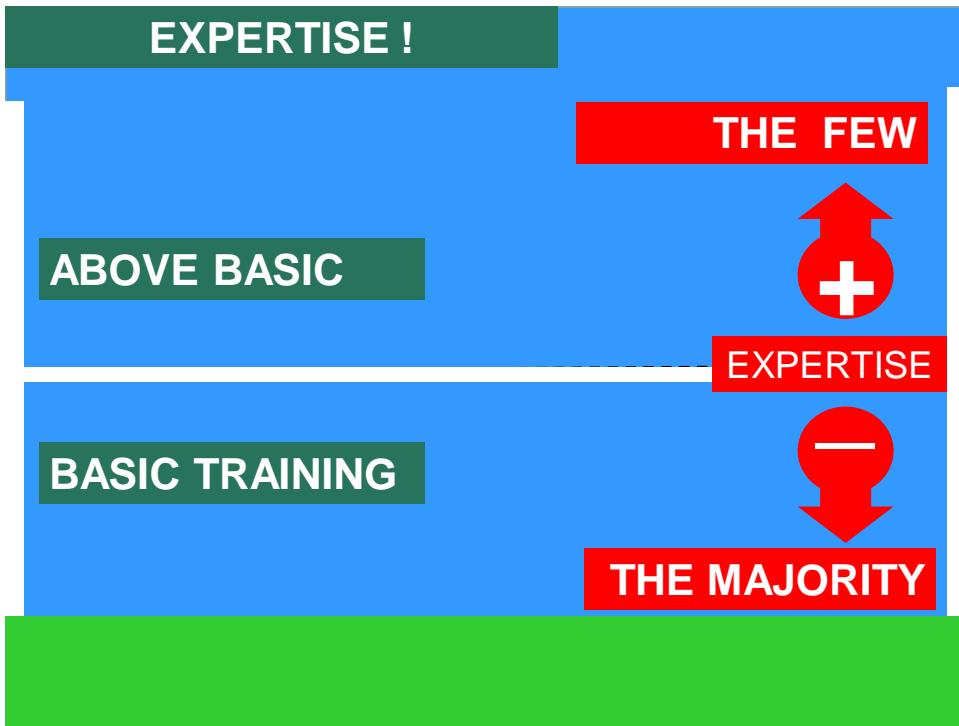
1. Recognise that education in new construction does not provide all the necessary skills that industry needs.
2. Promote best practice to their members.
3. Ensure entry qualifications includes RMI to reflect industry output.
4. Develop up skilling for management and professions to reflect what existing building stock requires.

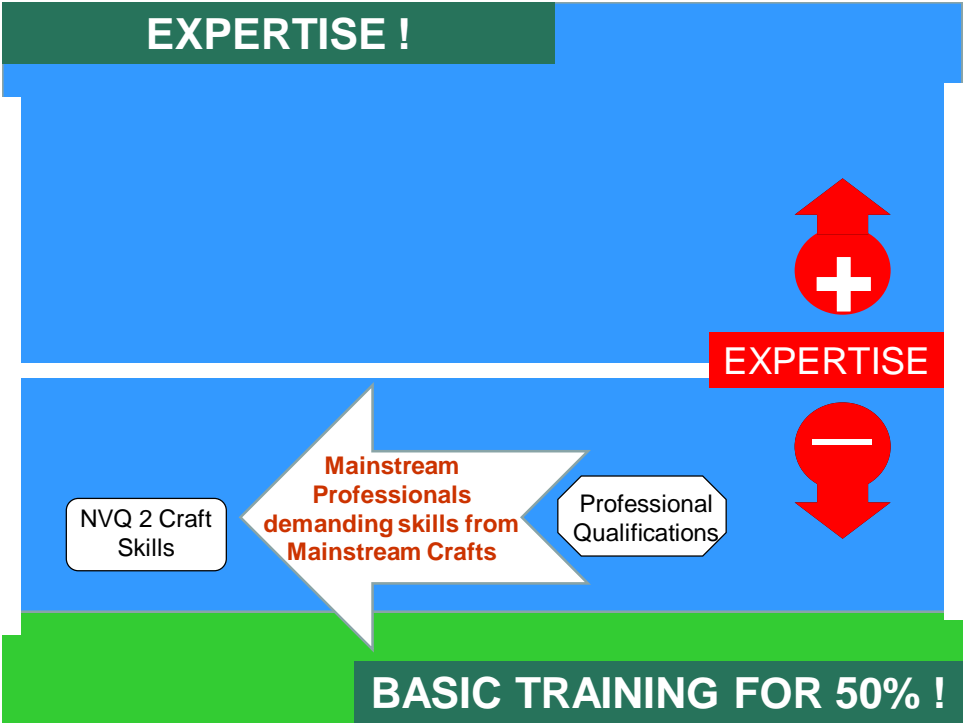
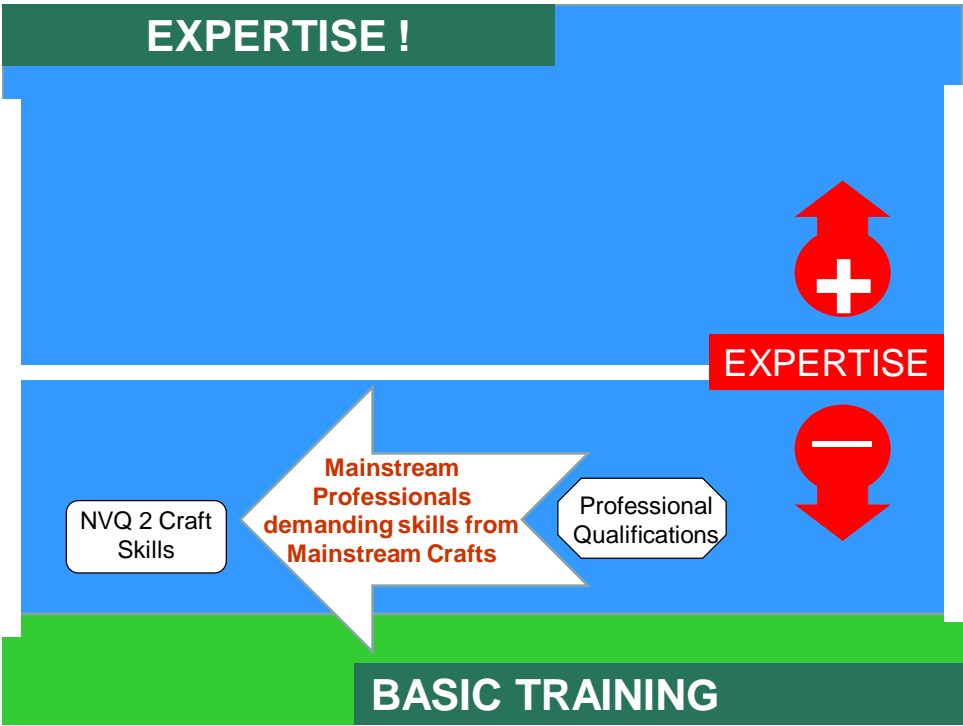
EXPERTISE !

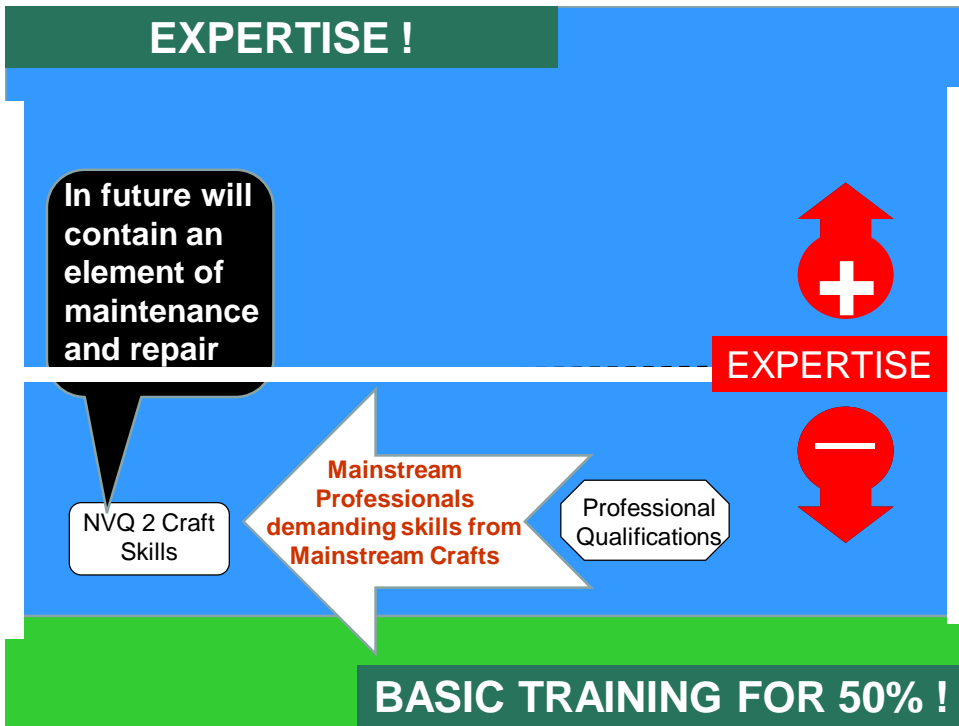


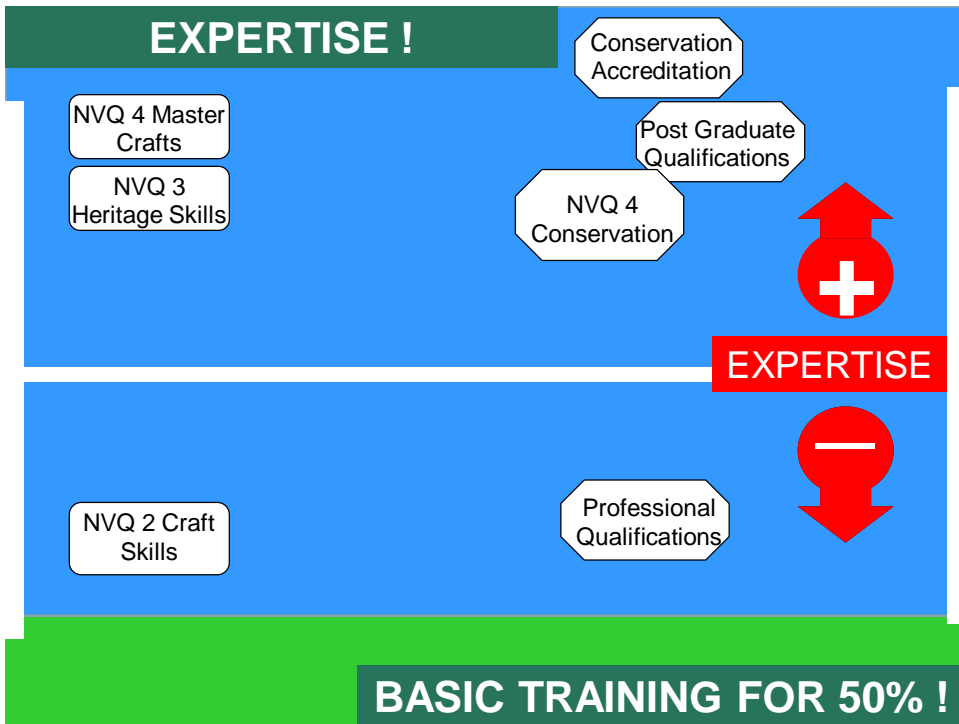
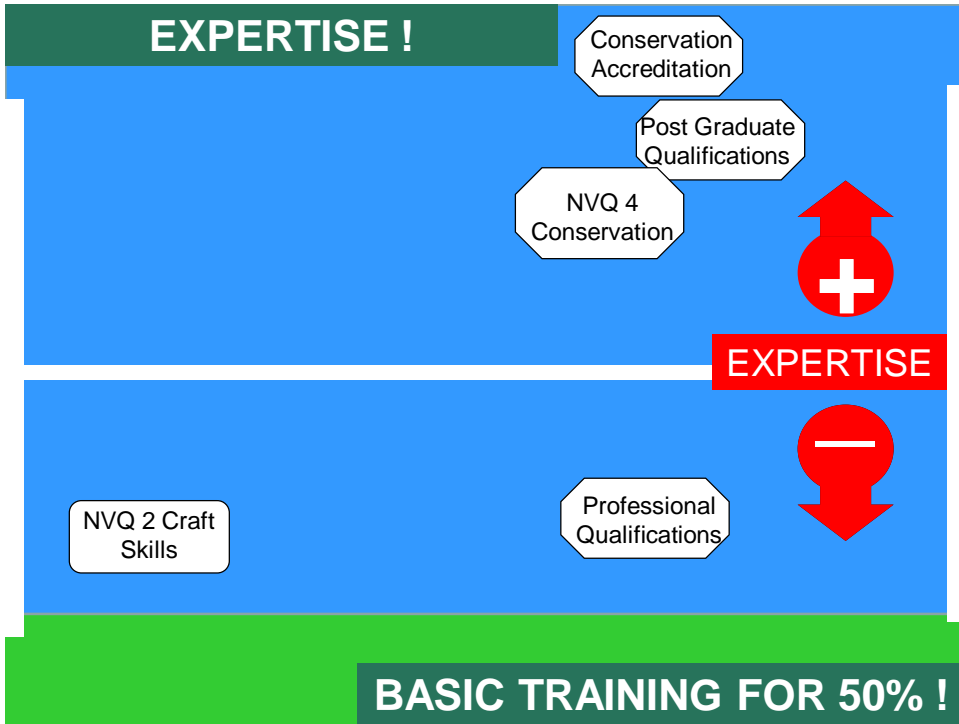
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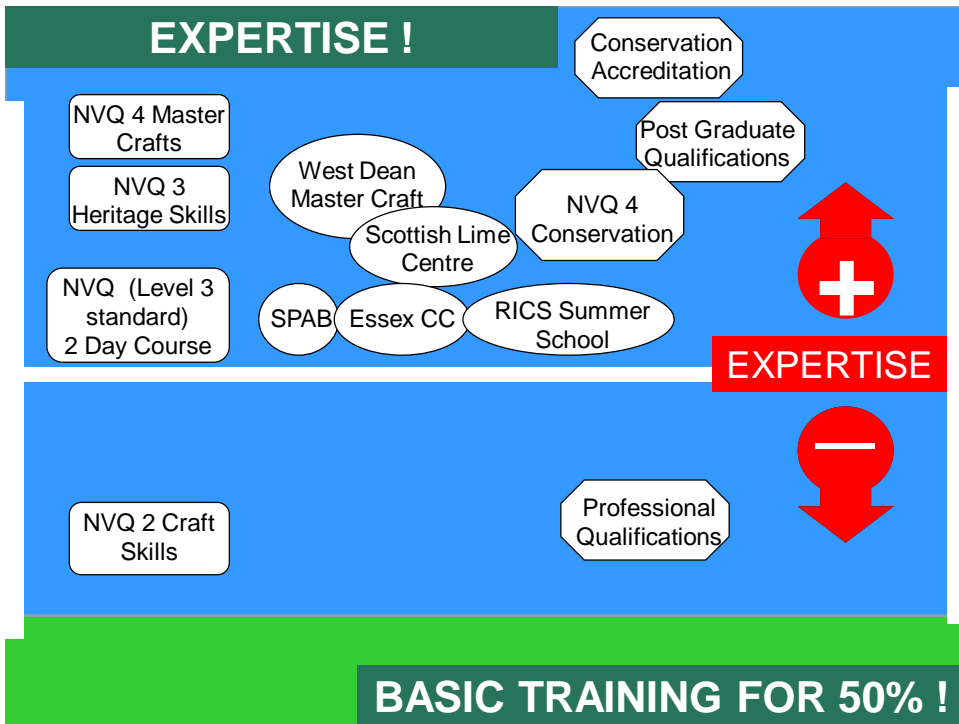
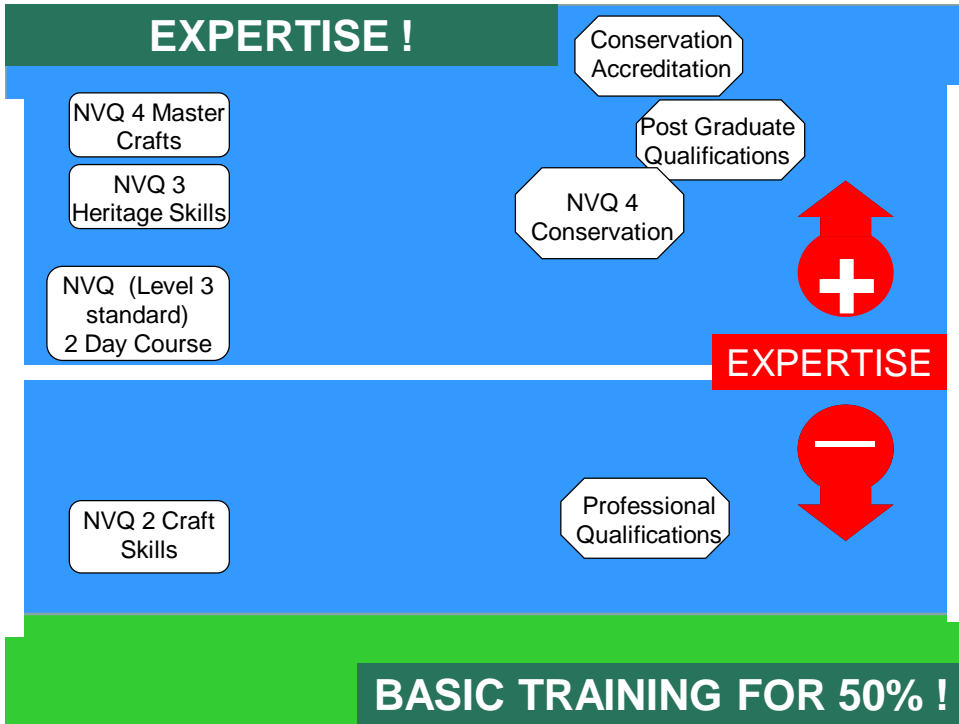












STBA

SUSTAINABLE TRADITIONAL BUILDINGS ALLIANCE

Passing on knowledge

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What Knowledge?

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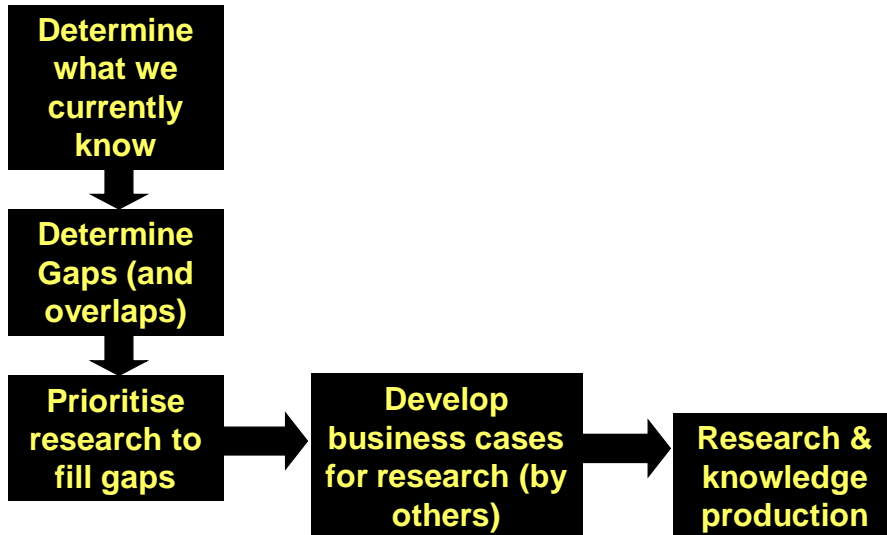
STBA

SUSTAINABLE TRADITIONAL BUILDINGS ALLIANCE

*Knowledge can only be passed on if
it exists and we know where it is*

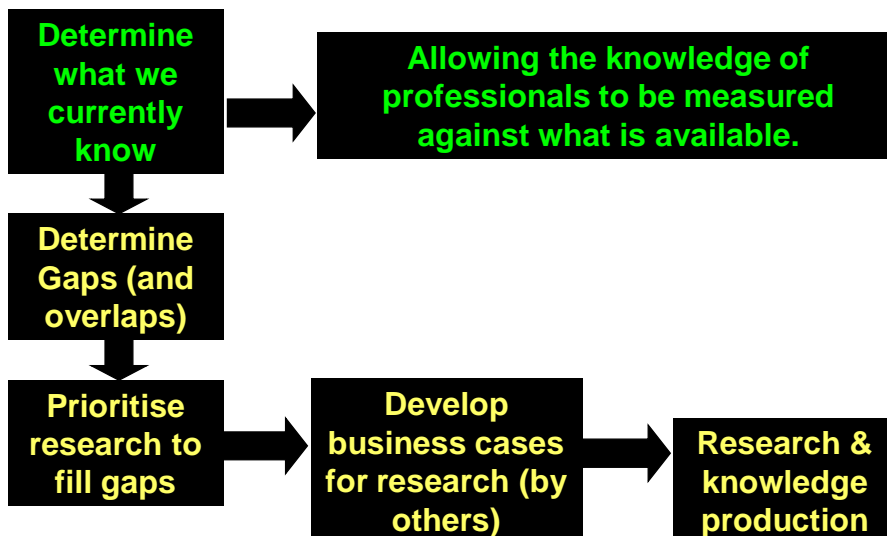
STBA Research

expertise to allow change....



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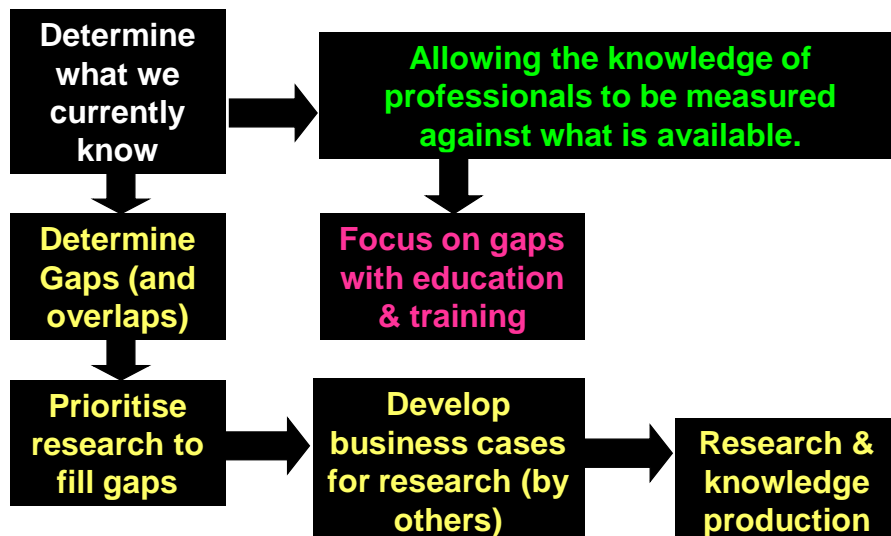
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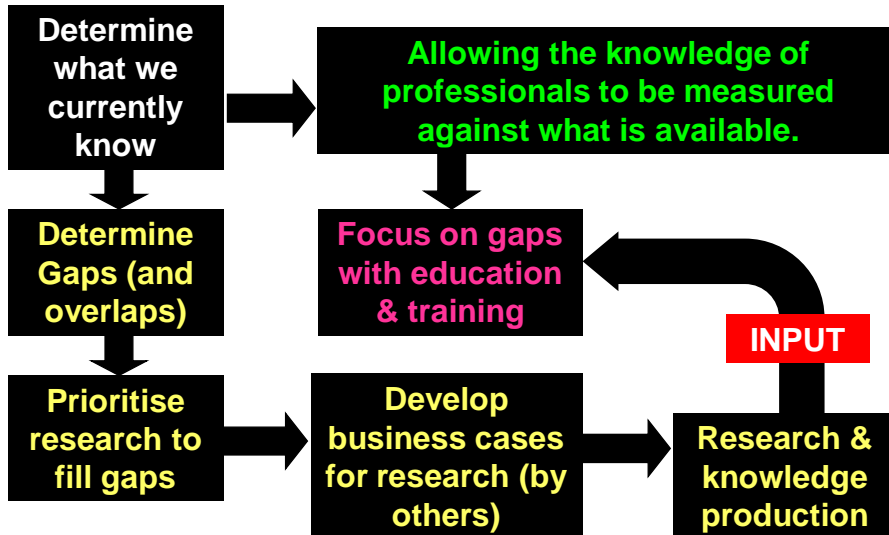
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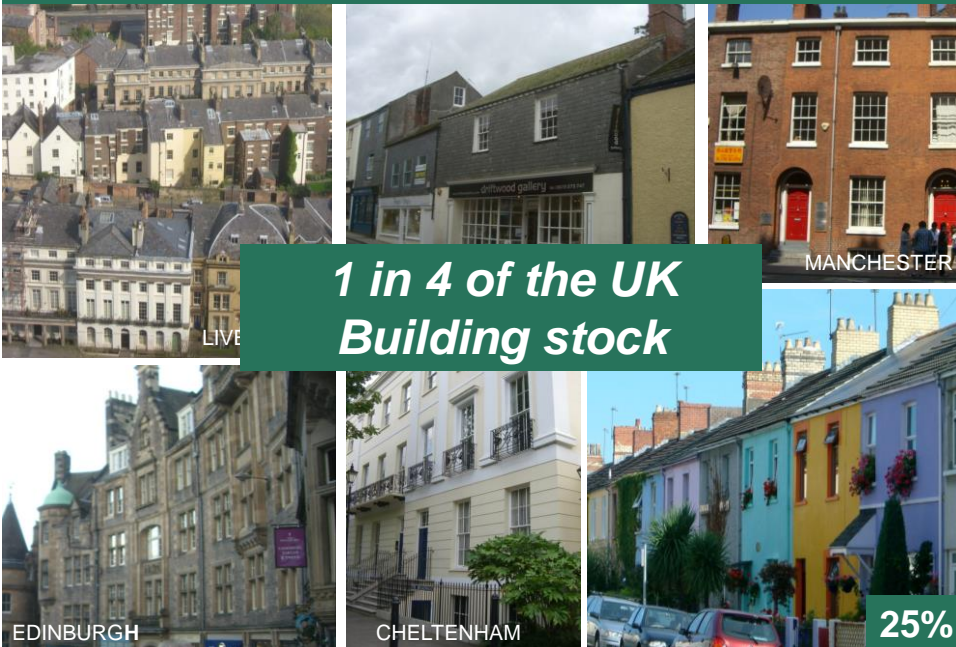


STBA research allows knowledge gap to be measured

What's at Risk



What's at Risk



What's at Risk

HERITAGE



LIVERPOOL



CHEL TENHAM



MANCHESTER

**1 in 4 of the UK
Building stock**



EDINBURGH



CHEL TENHAM



25%

What's at Risk

HERITAGE



LIVERPOOL



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£ BILLIONS ECONOMIC ASSETS
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What's at Risk

HERITAGE

£ BILLIONS ECONOMIC ASSETS

HEALTH

MANCHESTER

EDINBURGH

CHELTENHAM

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What's at Risk

HERITAGE

£ BILLIONS ECONOMIC ASSETS

HEALTH

OUR WORLD – OUR FUTURE!

MANCHESTER

EDINBURGH

CHELTENHAM

25%

Education and Training

Action Required

1. Accept - we come from a very low base – mainstream focused on new construction.
2. Embed sustainability / retrofit with RMI into all training and education – not added on.
3. Need to make sustainability / retrofit part of base / entrant training – and part of RMI
4. Urgent need for up-skilling – must include RMI best practice as well as ‘retrofit’.

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***Education & Training = Expertise
Without the right expertise we take huge risks!***

Education and Training

Passing on Knowledge



Welsh Government's
Historic Environment Service

THANK YOU

Diolch yn fawr

John.W. Edwards