

NSARE Overview



**Rail Shows
2011**

**Gil Howarth
Chief Executive**



Outline Programme

NSARE Overview – Gil Howarth

- **Q&A**

Skills Backbone – Mark Allen

- **Q&A**

Training Accreditation – Bill Alexander

- **Q&A**

Membership – Gil Howarth

- **Networking / Refreshments**



Personal Background

1974 – 1989 BNFL Project Manager

1989 – 1992 BR Project Director, CTRL

1992 – 1993 Union Railways MD

1993 – 1998 Railtrack Director, MPD

1998 – 2009 Howarth & Co CEO

- **Benaim**
- **Mace**
- **Franklin + Andrews**

2009 – NSARE CEO



Why NSARE?

A highly competent and motivated workforce is essential to delivering Value for Money!



Initial Industry Plan, October 2011

CP5 : 2014 to 2019

Contributors: Network Rail, ATOC, RFOA, RIA

Passenger ridership increase:

- **40% in past 10 years**
- **15% over CP5**
- **75% over next 20 years**

Freight carrying increase:

- **60% in past 10 years**
- **30% over CP5**

Investment & Renewals:

~ £21billion over 5 years

Annual savings:

~ £1.3billion by 2019



2009 Research

Current Workforce:

- **Needs to be up-skilled**
 - transient workforce
 - future technology demands

Recruitment:

- **30% more professionals needed over 5 years**
~4,000
- **100% more apprentices per year**
 - from 500 to 1,000

Education & Training

- **Very few colleges & universities interested in railway engineering**
- **100+ private sector training organisations**



The Big Picture – NSA Network

Round 1

Construction
Food & Drink
Financial Services
Manufacturing

Round 3

~~Fashion, Textiles & Jewellery~~
Materials, Production & Supply
Retail
Sport & Active Leisure

Round 2

Creative & Cultural
Hospitality
Nuclear
Process Industries

Round 4

Enterprise
IT
Power
Social Care

Round 5 (March 2010)

Railway Engineering
Environmental Technologies
Freight Logistics



NSARE: The First Year!

Headline Dates:

Government announcement	16th November
Launch (House of Commons)	1st December
Incorporation of NSARE Ltd	6th January
'Open for Business'	1st February
IT Contract placed	17th March
First employee (Bill Alexander)	4th April
11/12 Operational Plan approved	3rd May
'Apprenticeship to Fellowship'	22nd June
RTAS Concession awarded by Network Rail	9th September



Pan-Industry Support

- **Department for Transport**
- **Network Rail**
- **Transport for London (LUL, Overground & Crossrail)**
- **Railway Industry Association**
- **ATOC & TOCs**
- **Rail Freight Group**
- **Sector Skills Councils: GoSkills & SEMTA**
- **Railway Engineers Forum (Engineering Institutions)**
- **The Lloyd's Register Educational Trust**
- **Office of Rail Regulation**
- **RSSB**
- **National Rail Contractors Group**
- **Railway Industry Contractors Association**
- **Derby & Derbyshire Rail Forum**
- **Rail Alliance**
- **Association of Rail Training Providers**
- **TUC / Trade Unions**



Business Model

Robust financial model for first 3 years:

- **£2.7m of Government Grant: £1.7m already authorised**
- **£300k sponsorship: Lloyd's Register Educational Trust**
- **financially self-sustaining in 2013 (turnover ~ £2m)**

Corporate structure:

- **'not for profit' company limited by Guarantee**
 - **wholly owned by industry Members (already 65)**
- **small self-standing start-up company in private sector**
 - **11 staff**
- **National Office (within ATOC) with satellite offices where there is employer demand – Derby, York & TUCA**
- **Board of Directors elected annually – AGM 1st December**

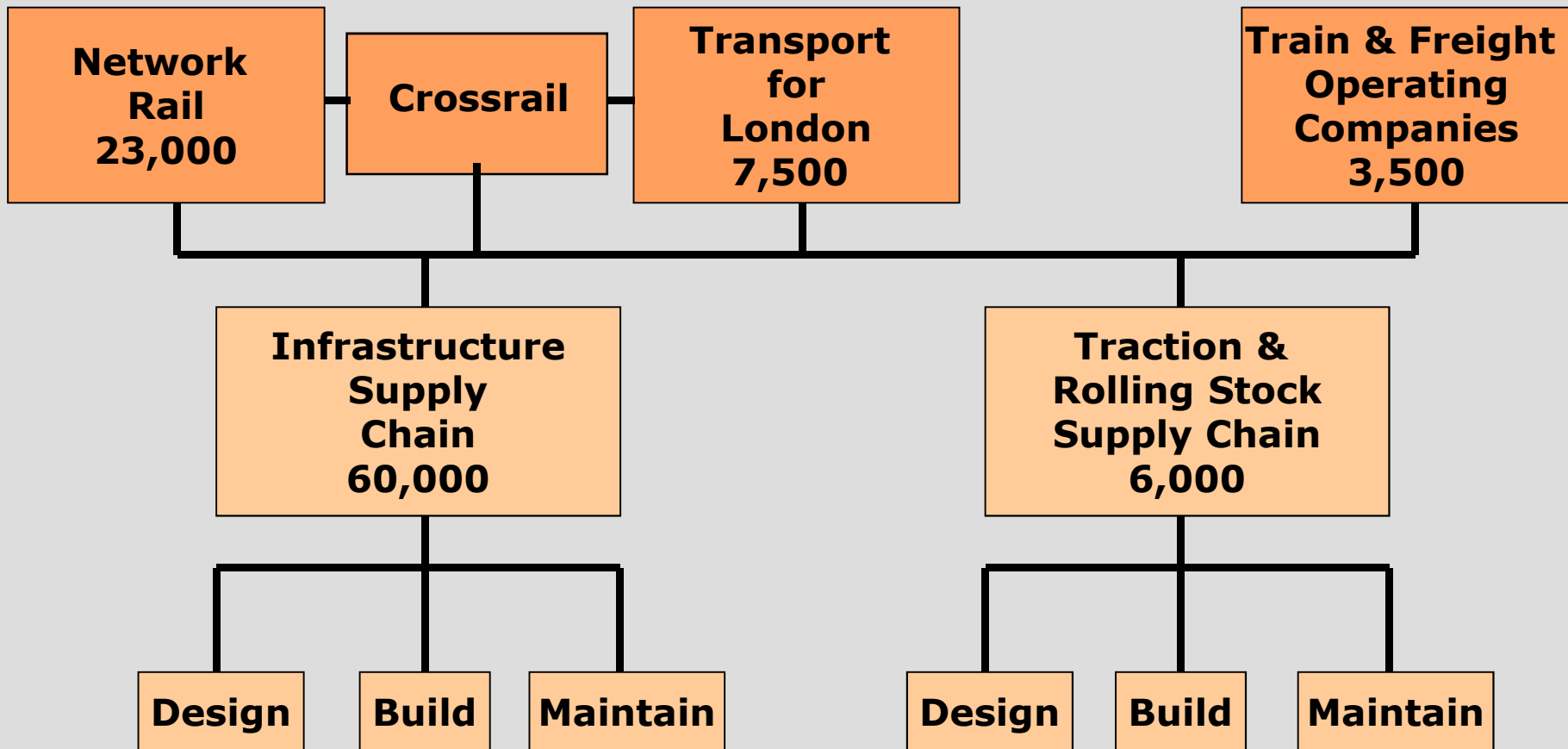


NSARE's Board

Name	Position	Also Representing
Terry Morgan	Chairman, Crossrail	Chairman
Arith Liyanage	MD, Carillion Rail	National Rail Contractors Group
Colin Walton	Chairman Bombardier UK	
David Waboso	Director Capital Projects, LUL	Transport for London
Jeremy Candfield	Director General, RIA	
John Hawkins	Technical Director, First Group	ATOC Engineering Council
John Stansfeld	Transportation Director, Lloyds Register	
Pino Derosa	MD, Bridgeway Consulting	Railway Industry Contractors Assoc.
Rob Brooke	MD, VTG Rail UK	Freight
Simon Jamieson	MD, Rail Tech Group	SME
Stephen Tetlow	Chief Executive, IMechE	Engineering Institutions
Steve Yianni	Engineering Director, Network Rail	
Gil Howarth	Chief Executive, NSARE Ltd	Company Secretary

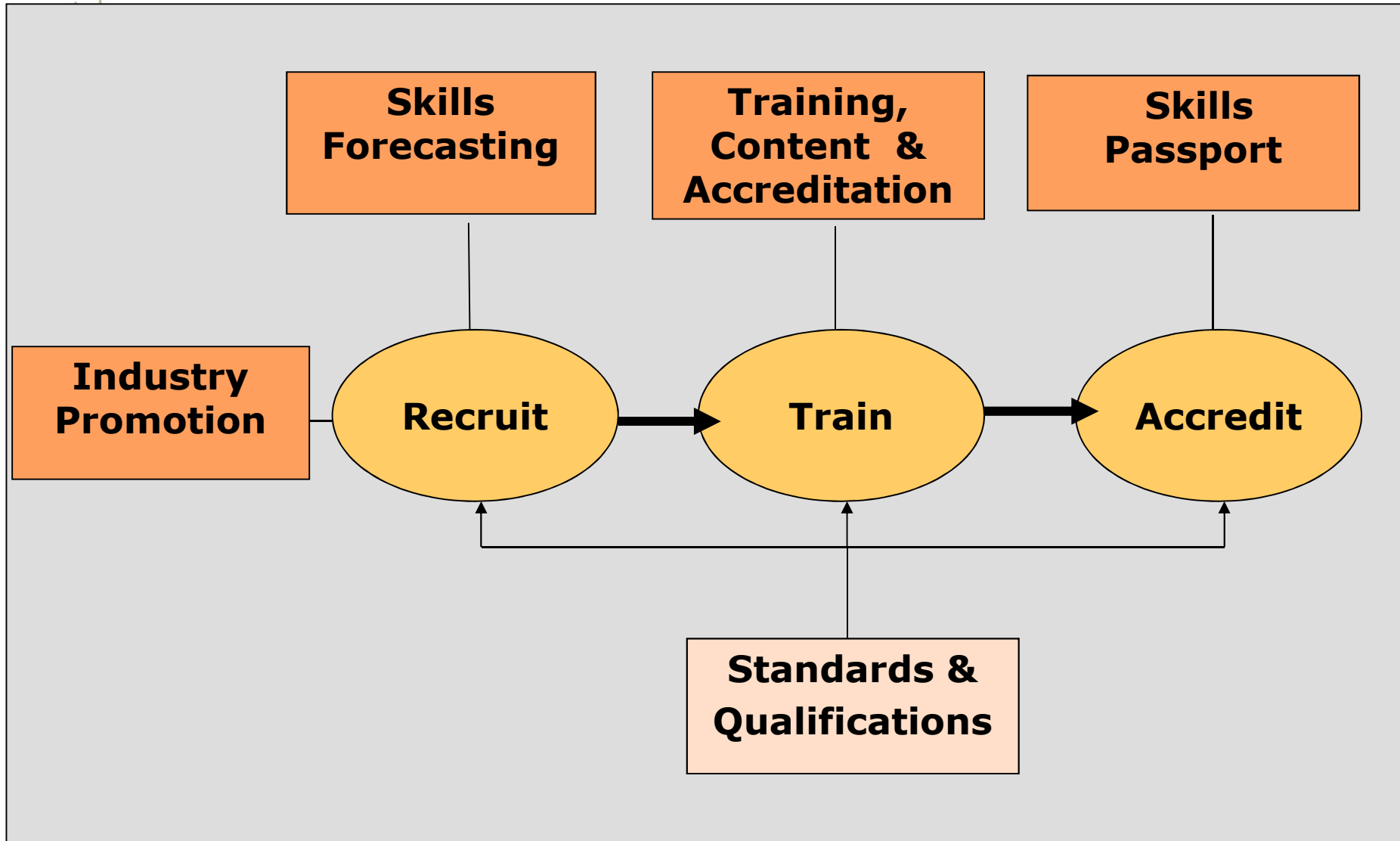
NSARE's Scope

100,000 engineers of all skill levels from school-leavers to PhDs



Major issue: 10,000+ transient workforce

Achieving the vision





Standards and Qualifications

Infrastructure Policy Group

- **Membership:**
 - **NSARE**
 - **Network Rail**
 - **Transport for London**
 - **Crossrail**
 - **National Rail Contractors Group**
 - **SME representative**
 - **GoSkills**
- **Job roles for all staff to be defined**
- **Apprenticeship frameworks unanimously agreed**
- **All staff to be trained to a minimum standard (Level 2)**

Traction & Rolling Stock Policy Group

- **Principle agreed by ATOC Engineering Council**

MoU agreed with National Apprenticeship Service



'Apprenticeship to Fellowship'

Professional Engineering Institutions Policy Group

**Chaired by Stephen Tetlow
(CEO IMechE & NSARE Ltd Board Member)**

Membership:

- all PEIs with an interest in railways**
- Engineering Council**
- 5 industry representatives**
- NSARE**

MoU signed by all PEIs !

'Apprenticeship to Fellowship'

- unanimously supported**
- consistent mapping of vocational qualifications to
PEI Membership criteria**



Training Accreditation

Ultimate Objective:

- **Unified training accreditation scheme**
- **Safety related and technical training**
- **Infrastructure and Traction & Rolling Stock**
- **All skill levels**
- **All training organisations to be accredited**
- **Every trainer and assessor to be accredited**

Phase 1:

- **Contract signed with Network Rail for accreditation of 'Sentinel' related training:**
 - **8 national 'Rail Shows' mid Oct. to mid Nov.**
 - **commence inspections in January 2012**



Other Initiatives

The LRET / NSARE/ Smallpeice Trust schools initiative:

- **3000 STEM days in 2011**
 - **East Midlands** **early 2011**
 - **North West** **in progress**
 - **North East** **from November**
- **Year 9 residential course in railway engineering (University of Nottingham in April)**
- **Year 11/12 residential course in railway systems (University of Birmingham in July)**



Other Initiatives

Young Railway Professionals

- **Network of 1,200 'STEM' Ambassadors from across the industry**

FE Colleges

- **Establish Network of NSARE accredited courses**
- **Derby: Railway Engineering Diploma**

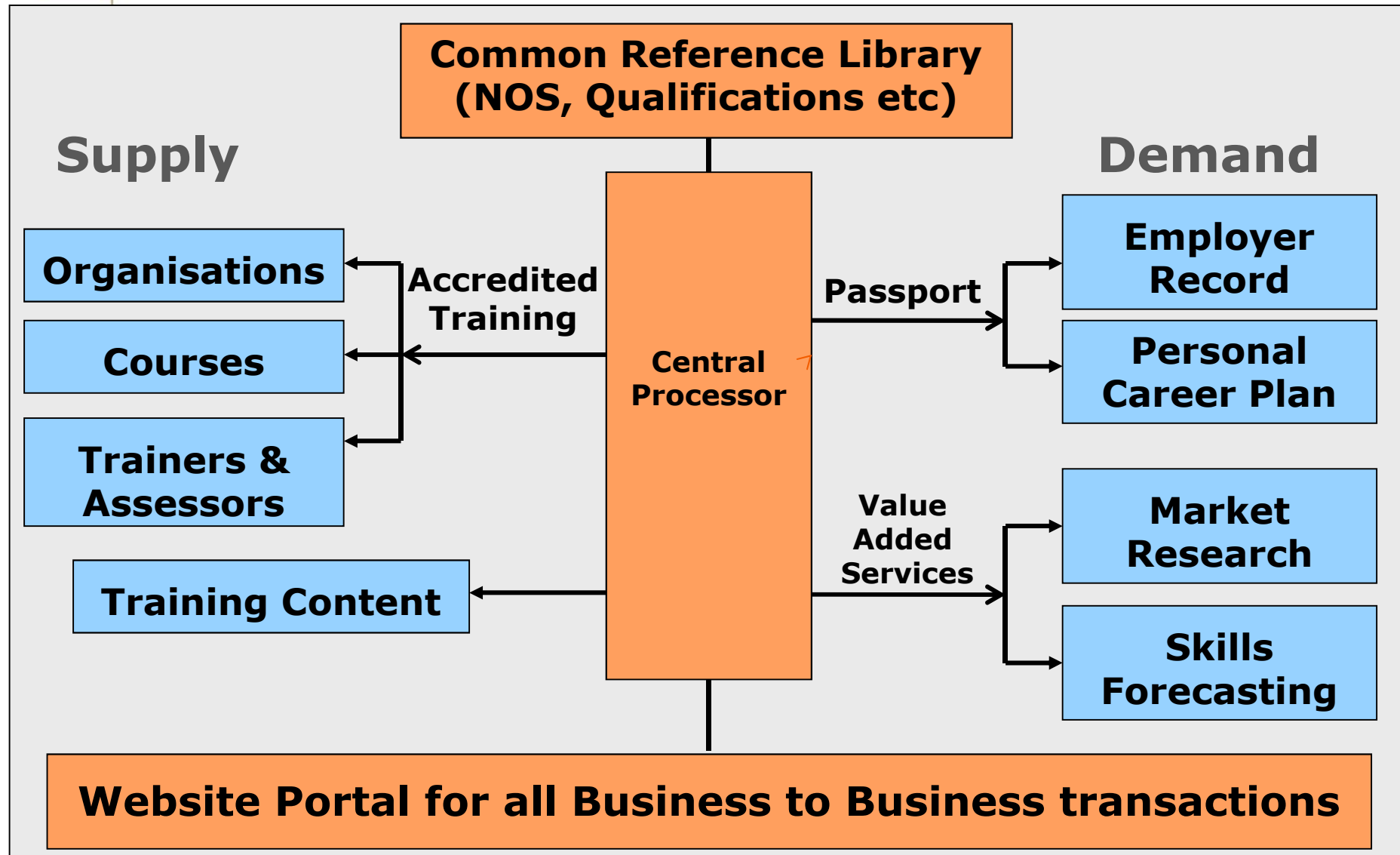
'RRUK-A'

- **Open to all universities; NSARE conduit to HE sector
- formal Launch on 8th November**

Trade Union Liaison Group

- **ASLEF, RMT, TSSA, Unite – facilitated by TUC**

'Skills Backbone' IT Platform



Government Endorsement



Questions & Answers



**Rail Shows
2011**

www.nsare.org

'Skills Backbone'



**Rail Shows
2011**

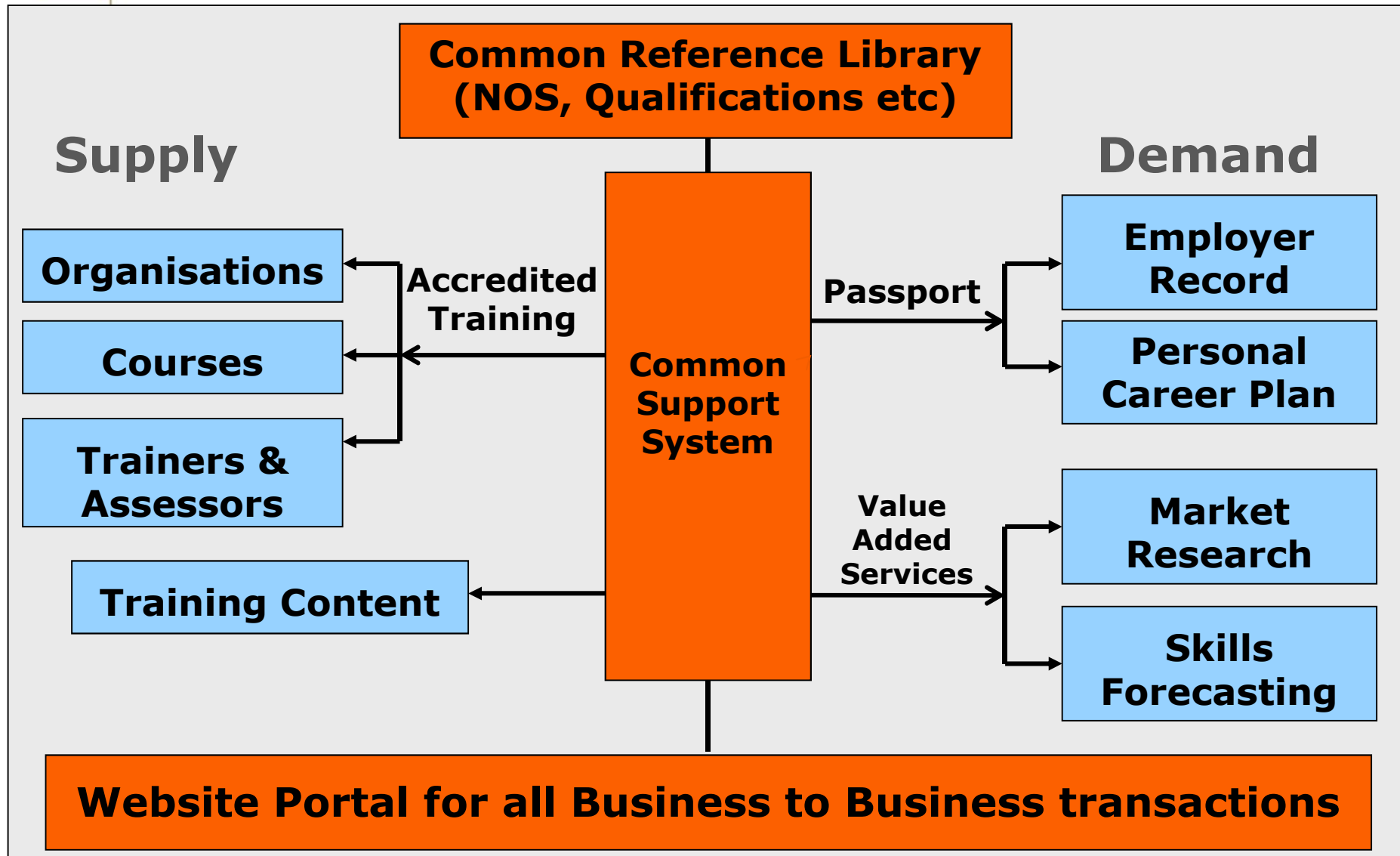
Mark Allen



The 'Skills Backbone' - Concept

- **Integrated suite of applications that support NSARE's key products and services**
- **Applications already exist as stand alone items**
 - **customising and integrating**
- **Building on previous development by other National Skills Academies**
- **Phased implementation from November 2011**

'Skills Backbone' IT Platform





'Skills Backbone' IT Platform



The diagram illustrates the 'Skills Backbone' IT Platform architecture. It features a central orange rectangular block labeled 'Core System'. Below this block, a vertical line connects to a wider orange rectangular block at the bottom, labeled 'Website Portal for all Business to Business transactions'. The entire structure is contained within a light gray rectangular frame.

Core System

Website Portal for all Business to Business transactions



Training Provision

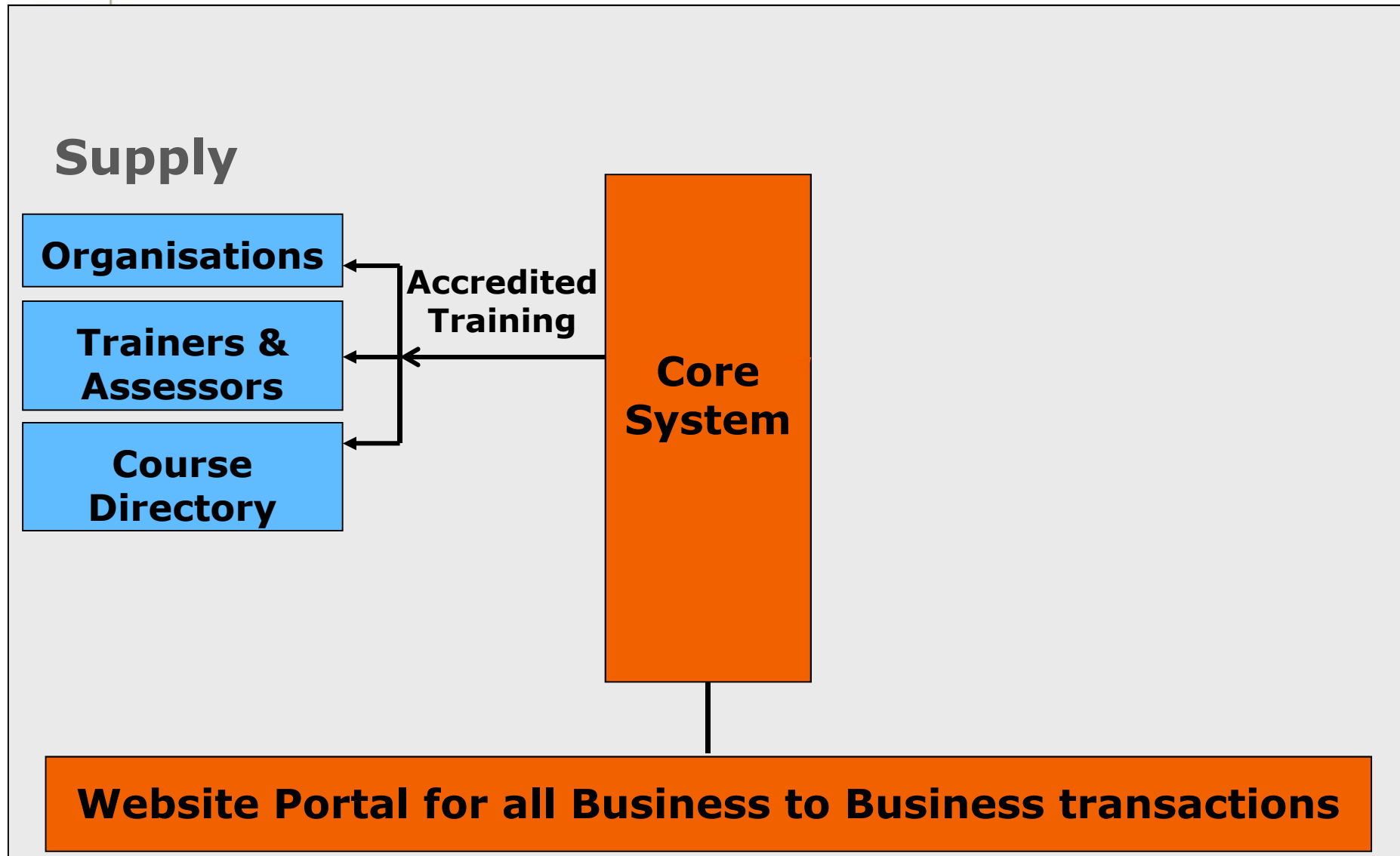
- **Working Group - employers and training providers**
- **Developed new process for accreditation – organisations and individuals**
- **Two stage process for organisations**
 - 1. Provision of information via 'Skills Backbone'**
 - 2. Inspection**
- **For individuals – provision of information via 'Skills Backbone'**
- **Once accredited – online entry in 'Skills Backbone' course directory**



'Skills Backbone' Course Directory

- **Accredited training providers will have listing in online directory**
- **Including:**
 - company introduction**
 - contact details/link to website**
 - list of railway engineering courses offered**
- **Directory searchable by employers/individuals**
- **Launching early 2012**

'Skills Backbone' – Stage 1





NSARE Skills Passport

- **On line record of individual's qualifications, training & competence**
- **Transferable – stays with individual throughout their career**
- **Supports career planning by comparing existing skills or qualifications to those required for other roles**
- **Link to on-line space for collecting, collating and cataloguing evidence towards CPD**

NSARE Skills Passport

Individual completes recognised course / learning / assessment



Individual skills record updated – online database

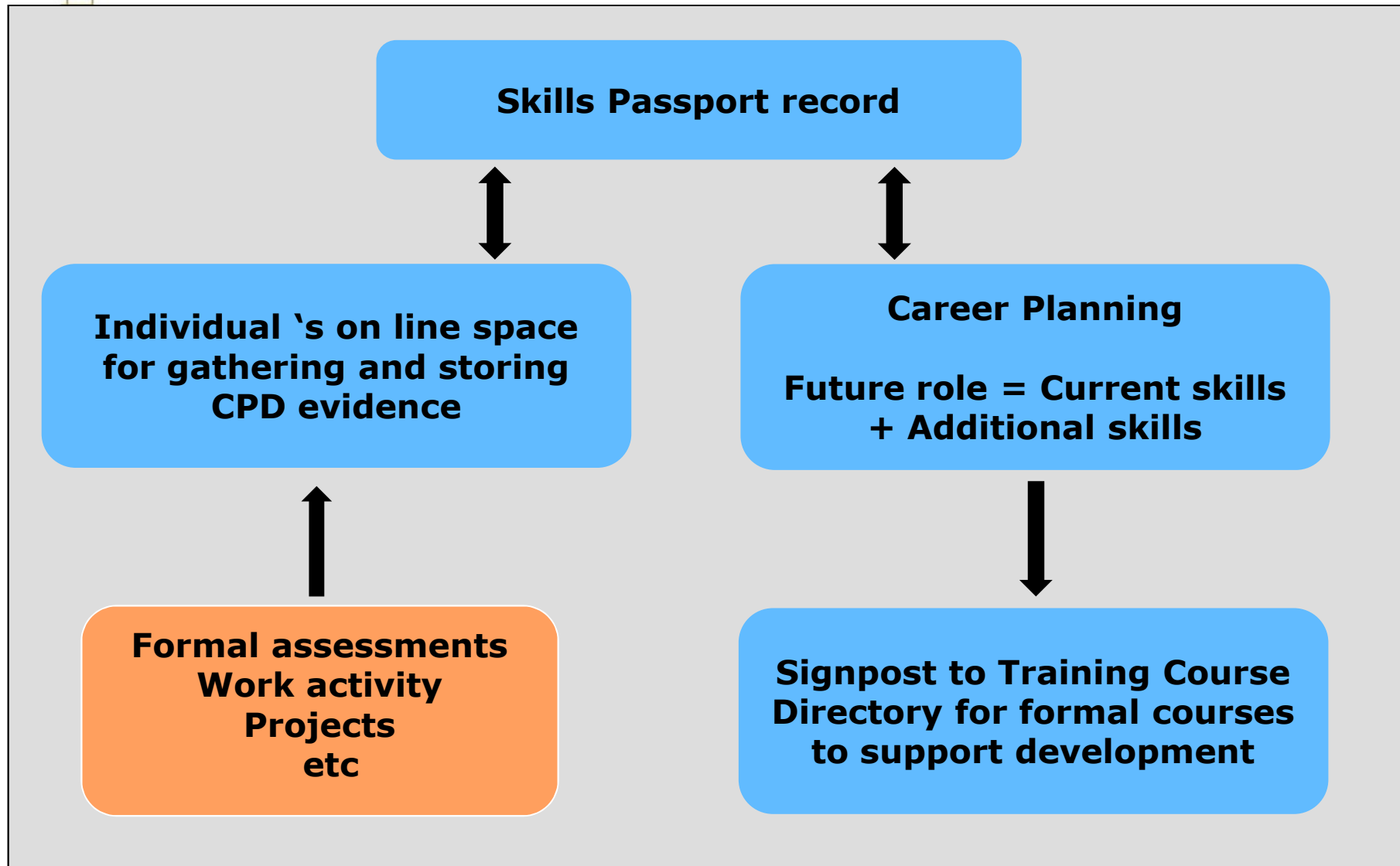


Accessible by individual to plan further development

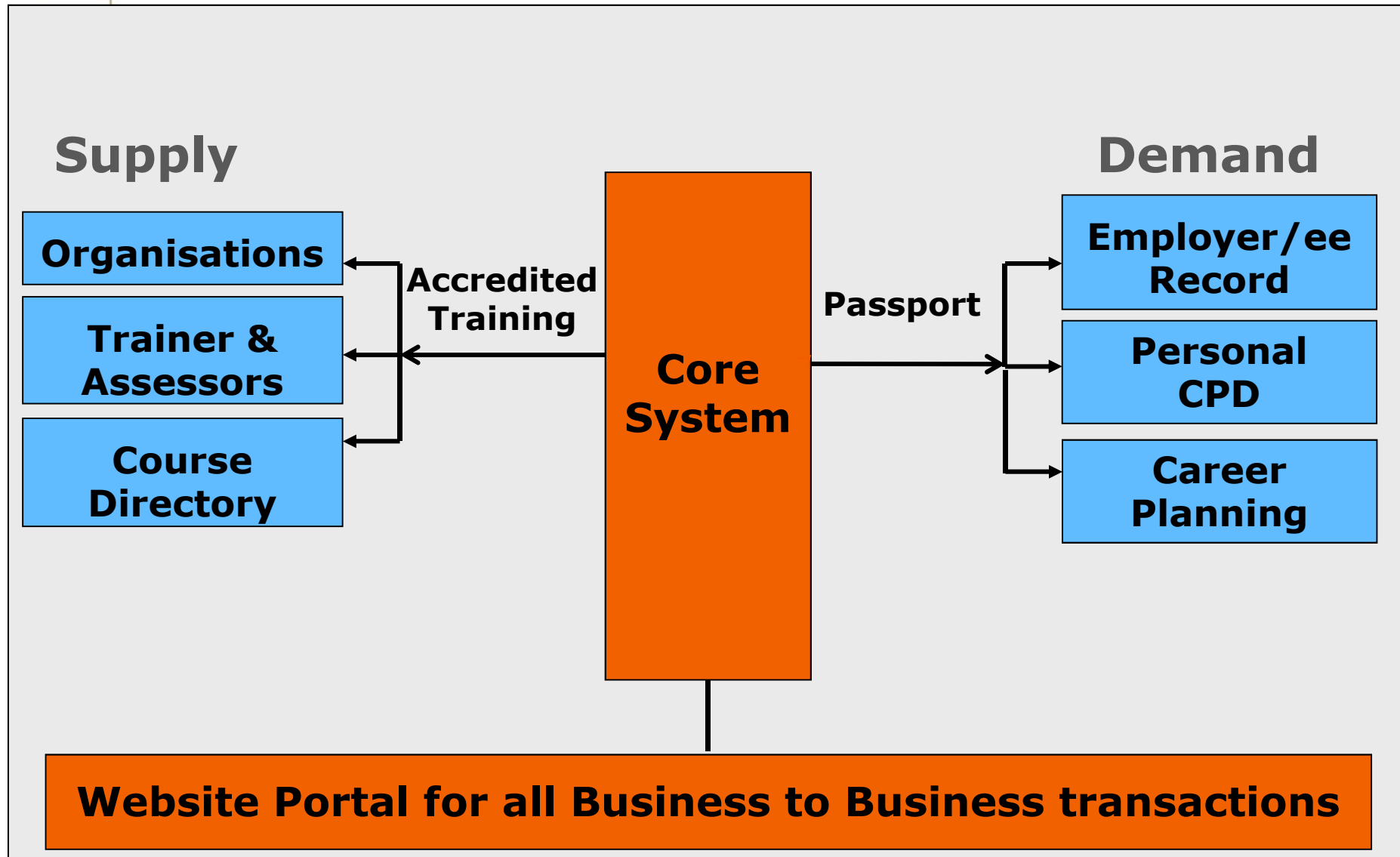


Record accessible by employer

Continuous Professional Development



'Skills Backbone'





Reference Library – The Missing Link

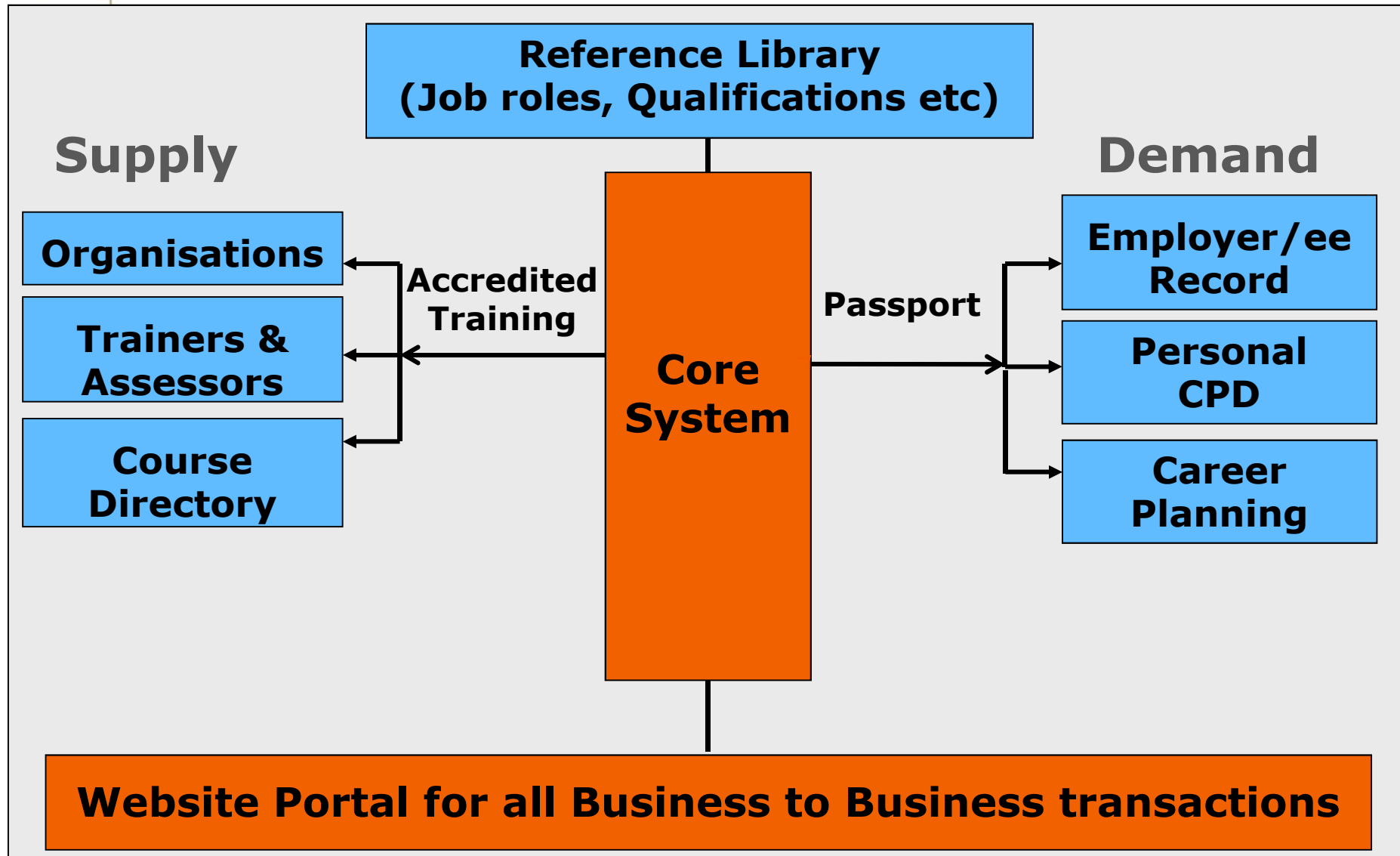
For maximum impact need

- **common qualification frameworks**
- **standard job roles and associated competences**
- **standard courses and qualifications that deliver these competences**



**Online 'Skills Backbone' Reference Library:
National Occupational Standards, job roles,
competences, qualifications & courses mapped to
each other**

'Skills Backbone' – Stage 2



Future Aspiration



Learning platform where employees can access

- information**
- learning**
- assessments by smartphone or tablet**

Complete at a time/place to suit them

Gather evidence of their development as they work and learn. Take photos, create video/audio and upload to their personal CPD area - from their phone



Check progress towards their professional engineering or other competence framework

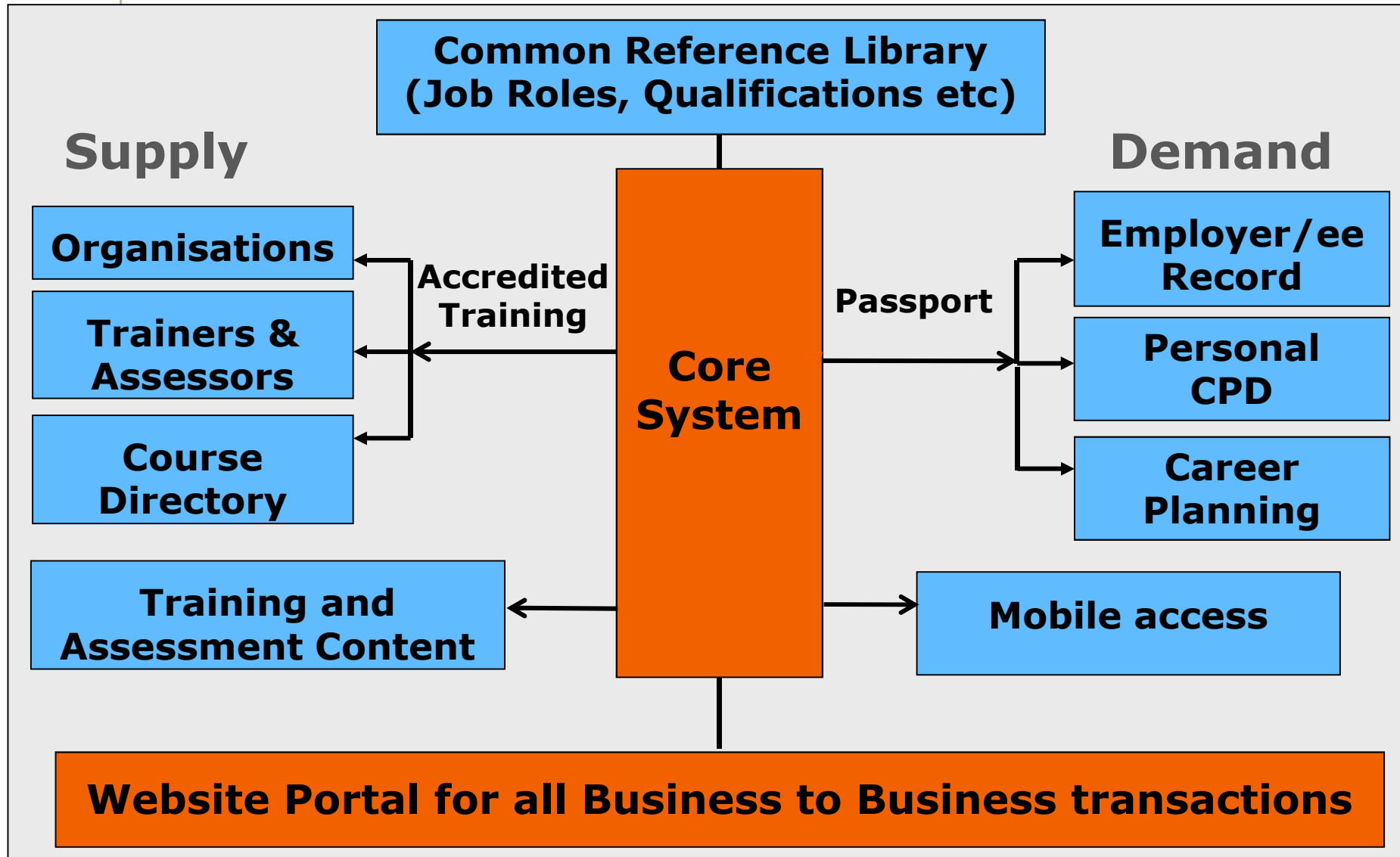
Is this realistic?

Already happening.....

- **medical students receive smartphones (access to books/mobile applications)**
- **access to pieces of learning and assessments when and where they want**
- **provides instant, timely and detailed feedback**



'Skills Backbone' - Future Stage 3



Questions & Answers



**Rail Shows
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Training Accreditation



**Rail Shows
2011**

**Bill
Alexander**

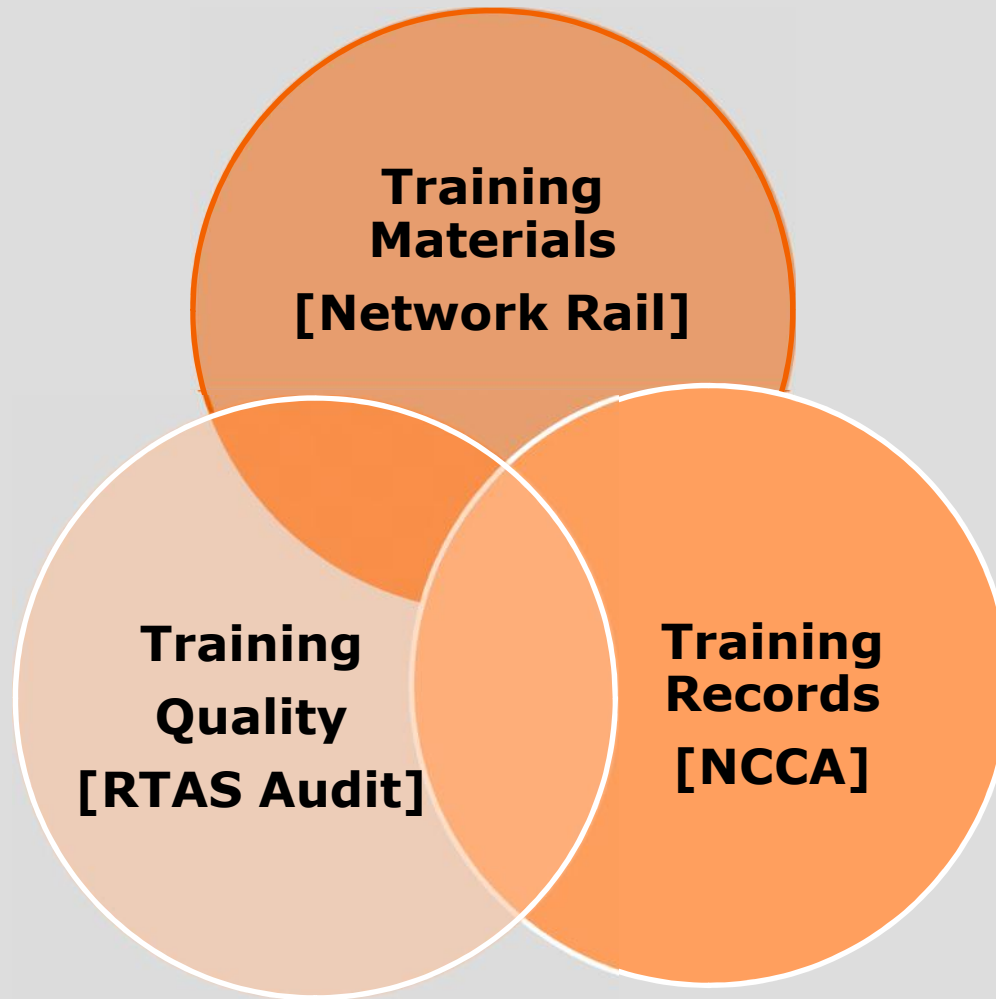


Introduction

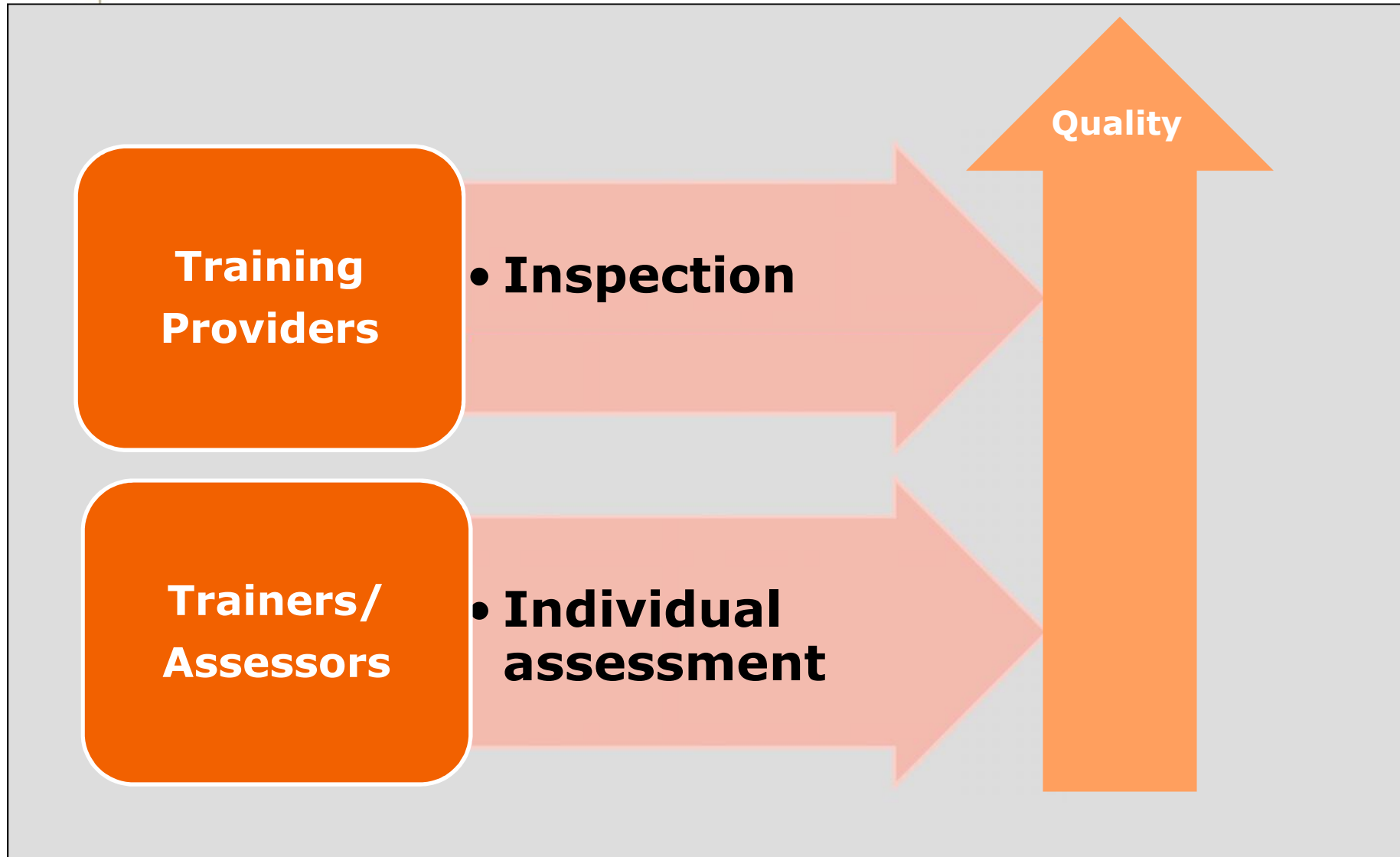
- **Scheme developed in conjunction with Network Rail and NSARE Working Group - objective is to drive quality upwards**
- **Bureaucracy markedly reduced; scheme underpinned by NSARE IT Platform**
 - **single data entry**
- **Self-assessment followed by Inspection**
- **Business Improvement advice inherent within the scheme**
- **Differentiation of quality of training provision, which will be published**



Project Sentinel: August 1999



Training Quality





Inspection

- **Initial inspection of each organisation within 6 months to 'baseline' training provision - inspections based on OFSTED framework by OFSTED approved inspection company;**

Tribal Group

- **education/training best practice**
 - **modified for rail industry needs**
- **Inspectors**
 - **senior posts within training/education**
 - **often Engineers**
 - **experience of framework**

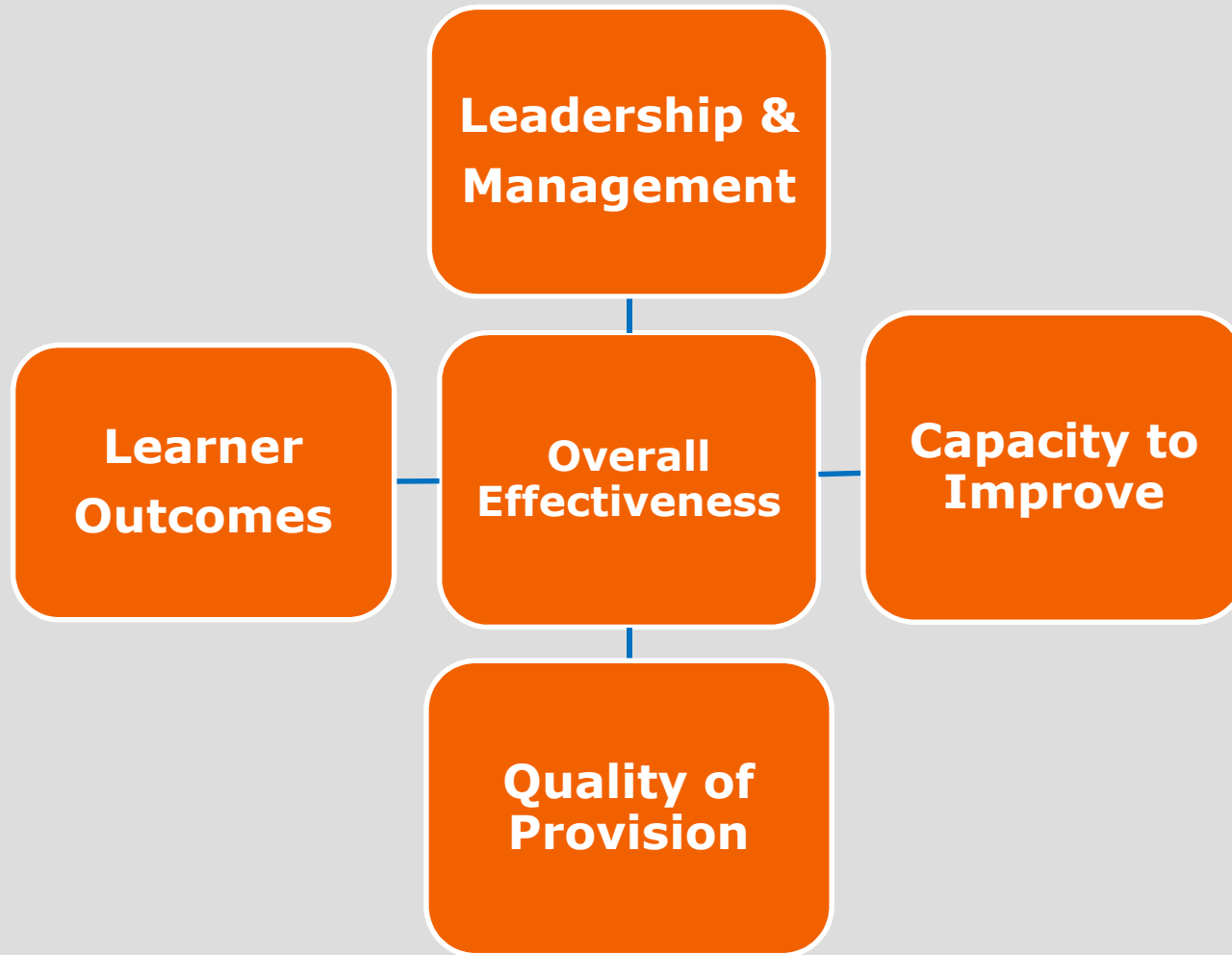


Frequency of Inspection

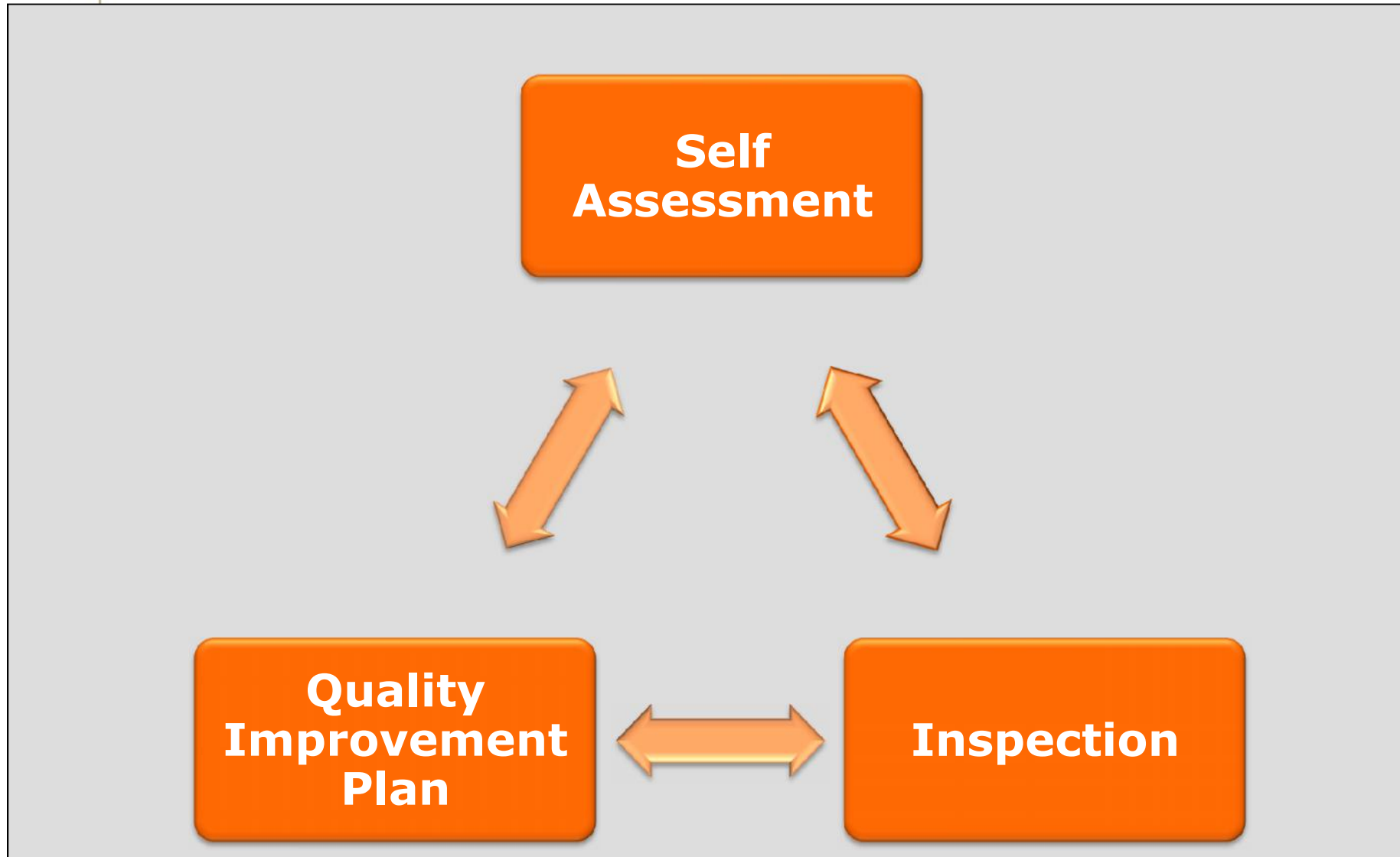
Subsequent inspection frequency dependent on quality, determined by inspection results and employer/learner feedback :

- Outstanding 24-36 months**
- Good 18-24 months**
- Satisfactory 12-15 months**
- Inadequate within 4 months**

Inspection Framework



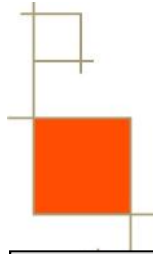
Driving up Quality – Business Improvement Cycle





Trainer Capability

- **Review of individual's qualifications and experience**
- **Commitment to CPD**
 - **30 hours per annum**
 - **Technical**
 - **Training skills**



Reports

- **Individual Training Organisation**
 - **Based on evidence**
 - **Professional judgement of Inspectors**
 - **Posted on NSARE website**
- **Industry Capability**
 - **Baseline Inspection**
 - **January to June 2012**
 - **Annual report – training capability**
[August 2012]



Industry Briefings

- **National programme of briefings in progress to explain the scheme, in conjunction with Network Rail:**
 - **Walsall** **14th October**
 - **Doncaster** **19th October**
 - **Salford** **21st October**
 - **Derby** **28th October**
 - **Watford** **1st November**
 - **TUCA (Ilford)** **3rd November**
 - **Bristol** **9th November**
 - **Larbert (Falkirk)** **11th November**
- **226 delegates from 97 companies registered**

Questions & Answers



**Rail Shows
2011**

www.nsare.org

Membership



**Rail Shows
2011**

**Gil Howarth
Chief Executive**



Why get involved?

- **One off Membership fee (not a subscription):**
 - **large companies: £1,000**
 - **small companies: £250**
- **Election of NSARE Directors at the AGM on 1st December 2011**
 - **'one Member one vote'**
- **Company name on NSARE promotional material & website**
- **Free advice on Government funding for training**



Why get involved?

- **Help to promote the industry as a career of choice for young people**
- **Help to shape the future of NSARE by joining a working Group:**
 - **Industry Promotion**
 - **Skills Forecasting**
 - **Skills Passport**
 - **Training, Content & Accreditation**
- **Take advantage of NSARE's Products & Services as they are developed**



NSARE's Products & Services

Industry promotion

Schools initiative - commenced Jan 2011 to raise awareness of Railway Engineering

Skills Forecasting

Forecasting model giving 10 year view of future skills needs developed

Skills Passport

A transportable recognised record of skills and competence for use by individuals and employers

Accreditation

Raising standards through a single, unified industry accreditation and audit scheme for training organisations and trainers

Standard Course Content

Rationalisation of training content & materials to support joined up career pathways

Business to Business

Enabling employers to find the best training and funding to meet their needs



Current Members

- **Ambertrain Ltd**
- **BAM Nuttall Ltd**
- **BemaRail Training**
- **Bombardier Transportation**
- **Bridgen Training Services Ltd**
- **Carillion PLC**
- **Cats Solutions Ltd**
- **CEME**
- **Cognitive Publishing Ltd**
- **Colas Rail Ltd**
- **Copybook Ltd**
- **Costain Group**
- **Crossrail**
- **D&K Consultancy Trading Ltd**
- **Distinction Training**
- **DVV Media UK Ltd**
- **Epps Training Development Ltd**
- **Faiveley Transport Birkenhead Ltd**
- **Four Counties Training**
- **Howarth & Co Consultancy**
- **Intertrain UK Ltd**
- **Keltbray Aspire**
- **Lloyds Register Rail Ltd**
- **London & NW Railway Heritage Co. Ltd**
- **MG Scotland Ltd**
- **MKM**
- **Mott MacDonald Ltd**
- **Network Rail**
- **Neway Training Solutions**
- **PBL Training Services Ltd**
- **PERA**
- **QHI Rail Ltd**
- **Rail Tech Group**
- **Railnews Ltd**
- **Railway Vehicle Engineering Ltd**
- **Renown Railway Training Services**
- **RSSB**
- **S&T Training Ltd**
- **Scot-Train Ltd**
- **S Gill Services Ltd**
- **Shannon Rail Services Ltd**
- **Siemens Mobility Rolling Stock**
- **Signet Solutions Ltd**
- **Silver Track Training Ltd**
- **Southern Railway**
- **TES 2000 Ltd**
- **TQ Catalis Ltd**
- **Tube Lines Ltd**
- **Unipart Rail Ltd**
- **VTG Rail UK Ltd**

Questions & Answers



**Rail Shows
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