

Mass Customisation and Massive Open Online Courses: Implications for educational institutions.

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Educational Reforms

Performance and Efficiency:

Increased number of learners from a broader ethnic, cultural, economic and educational backgrounds will complete a range of higher qualifications at an affordable cost .

Internationalisation:

New Zealand institutions create learning environments that provide a “global” experience for learners and are attractive to international learners

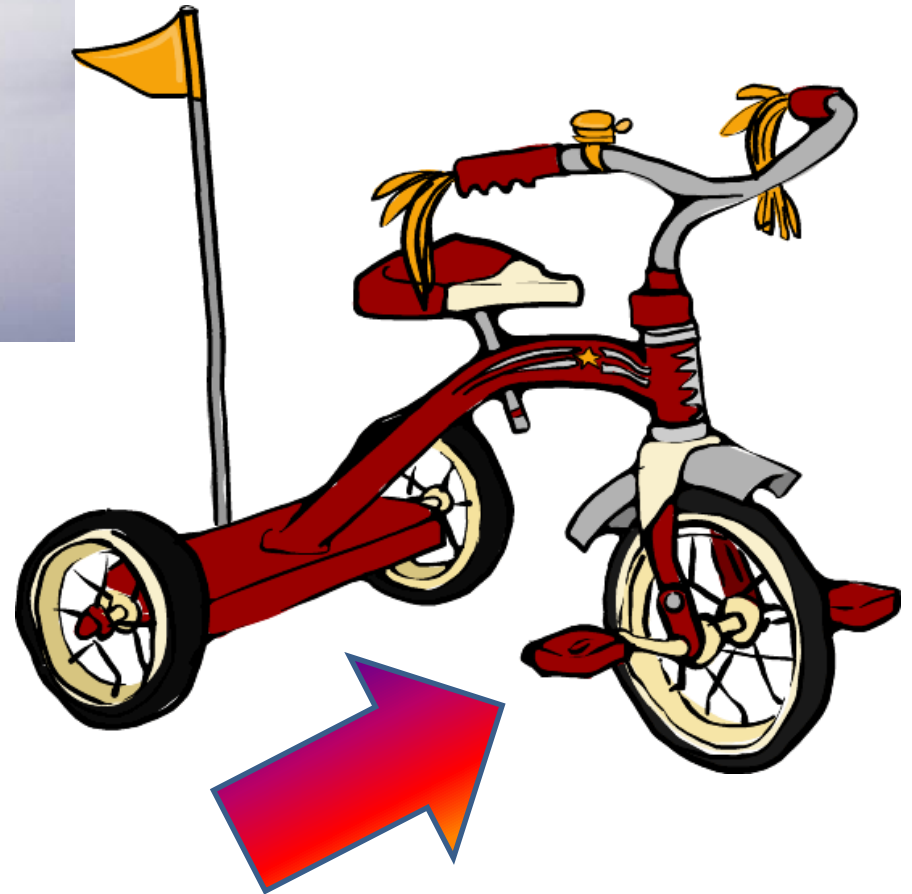
Learner Centric: The needs of the learner are at the centre of all educational activity

Investments in ICT

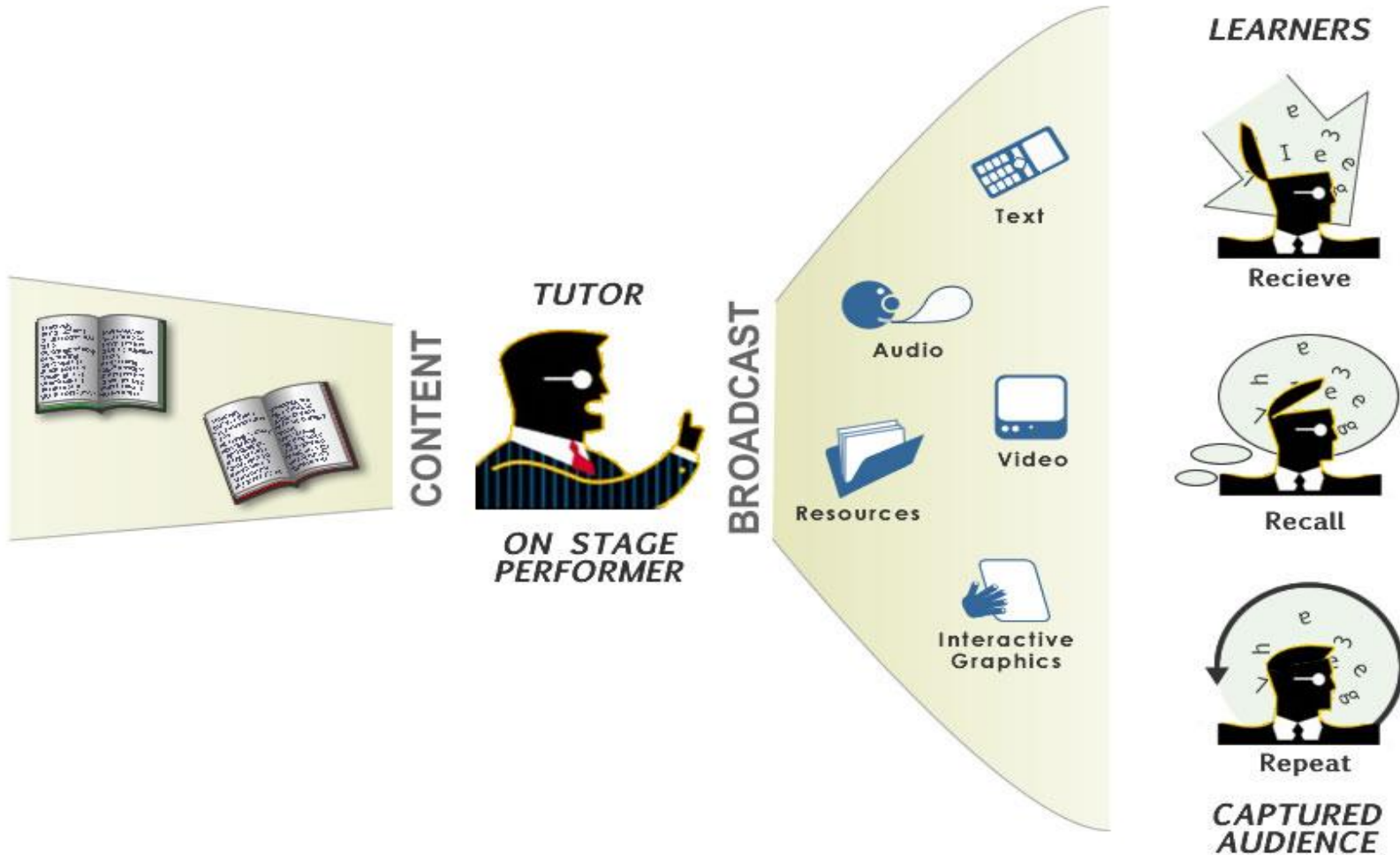
To enable learners to participate successfully in the “**21st century knowledge age**” New Zealand educational institutions have made significant investments in ICT infrastructure, hardware, software and Professional Development (PD).



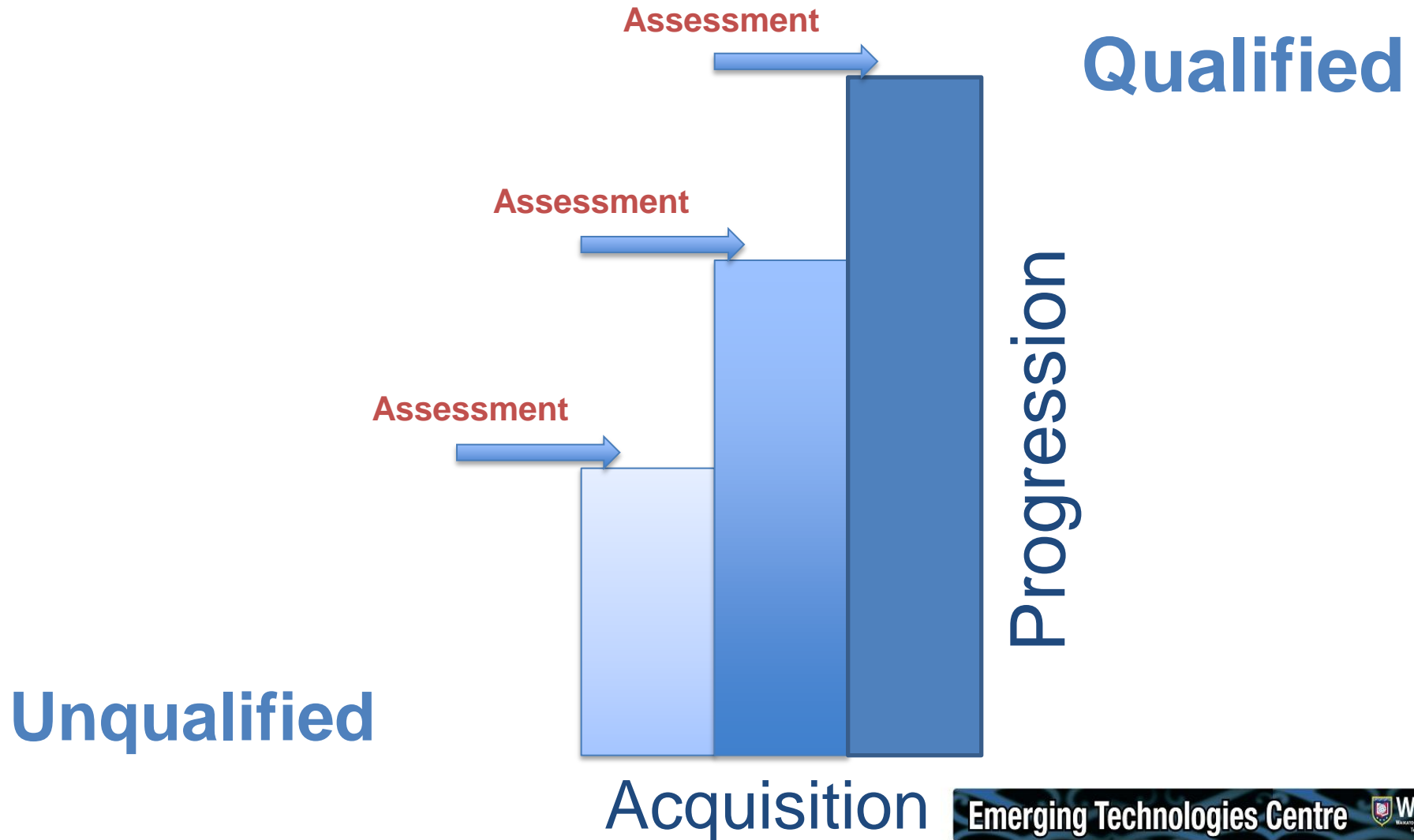




Broadcast Model of Delivery

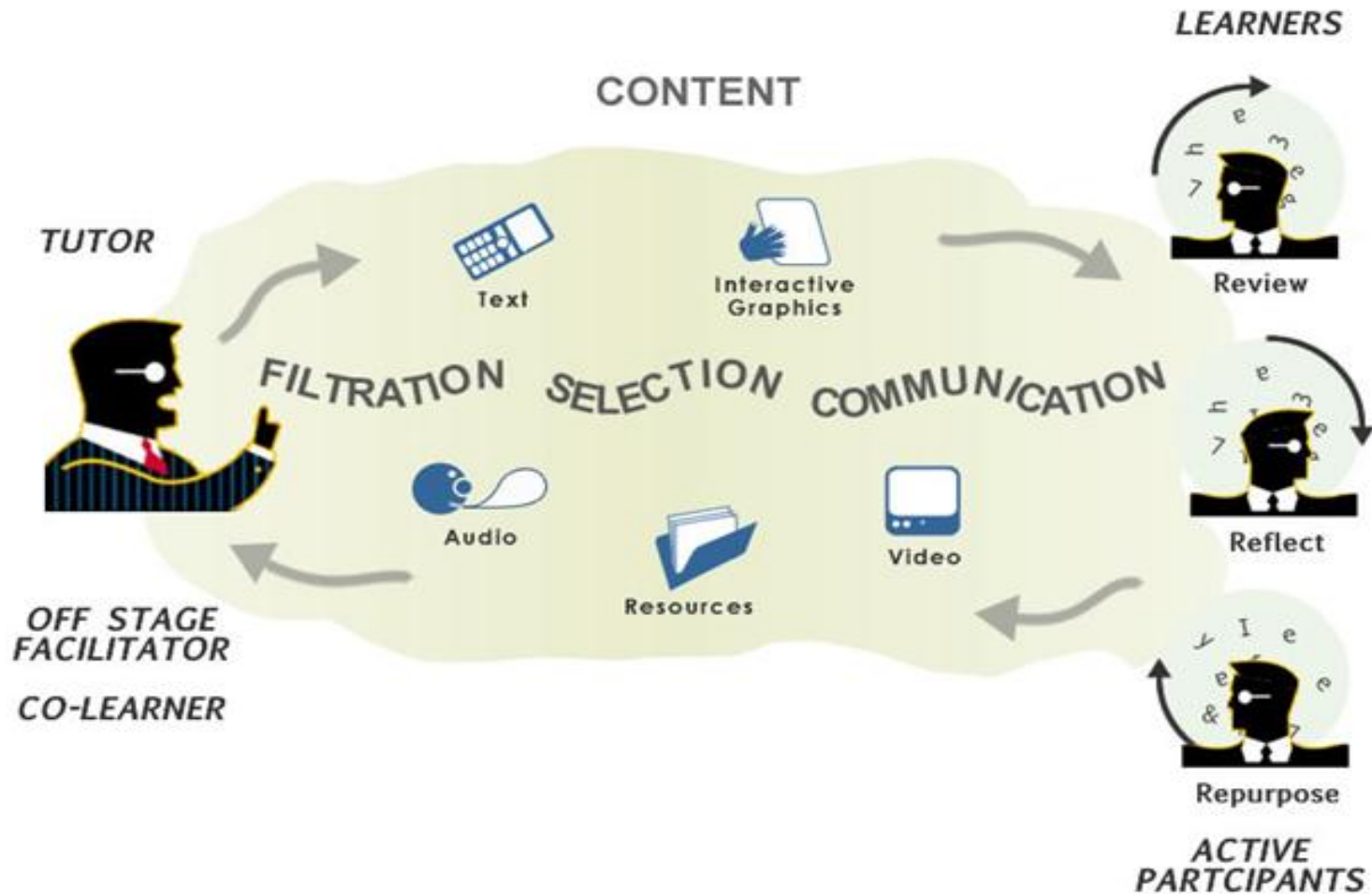


Product Model of Curriculum

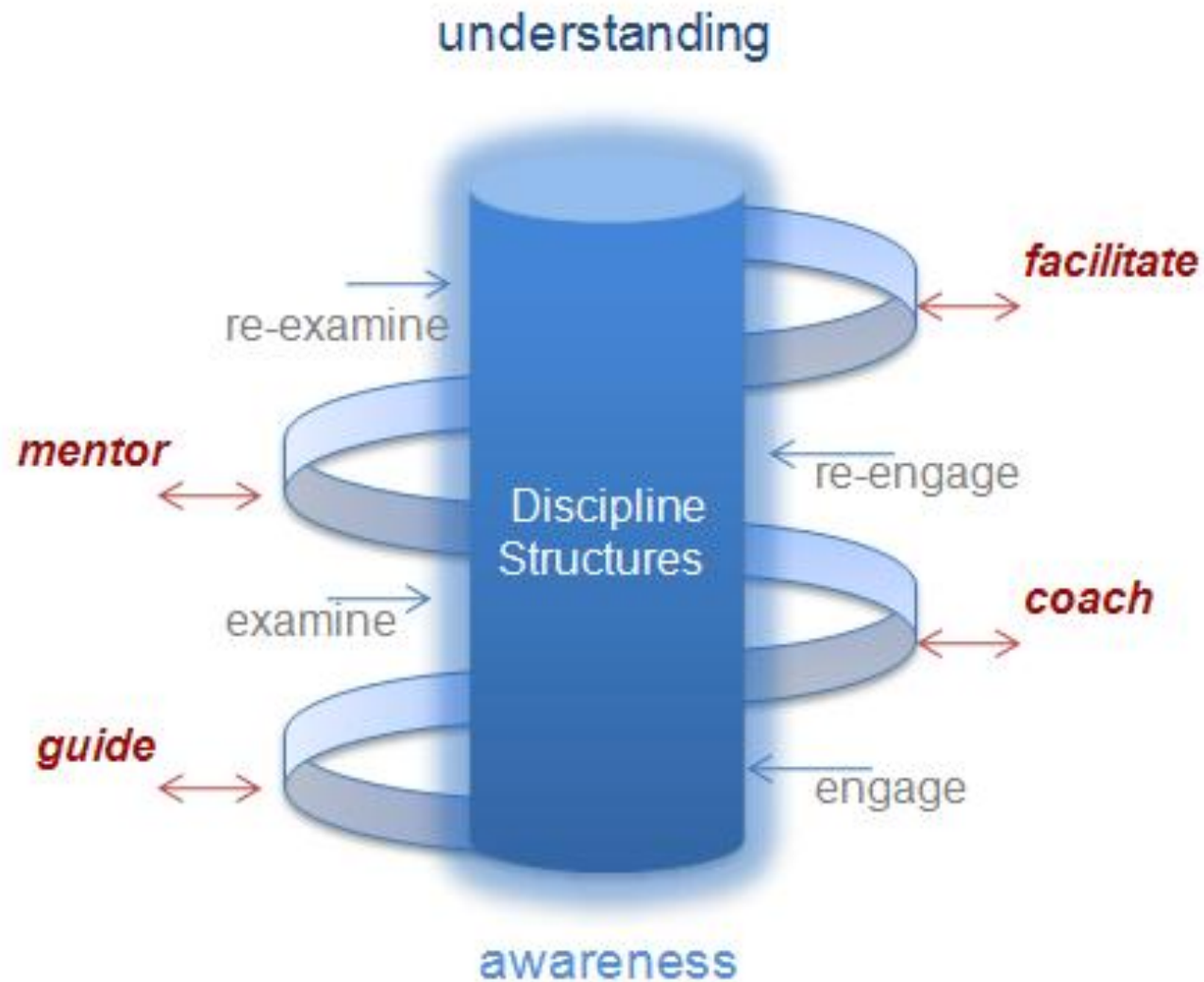




Facilitated Model of Delivery



Process Model of Curriculum



MOOC

<http://www.guardian.co.uk>



Trojan horse in the global higher education debate?

Emerging Technologies Centre

Te Taiwhanga Hangarau Mohou



Wintec
Massey Institute of Technology
Te Kaitiaki Takekōwhiri

MOOC

- **Massive:** Larger in scale than traditional course offerings.
- **Open:** No restrictions on individual participation or availability of content.
- **Online:** Participants, materials and functionalities are distributed across a variety of networks
- **Course:** There is a defined focus and time period for the learning event

By the Numbers

- Artificial Intelligence Course run by Thrun from Stanford enrolled **160,000** from **190** countries
- Coursera a consortium of European and North American Universities has **1,000,000** registered students.
- MIT & Harvard are investing **\$60US Million** in MOOC developments (edX)

edX / Coursera / Udacity

- These are joint ventures initiated by prestigious learning institutions (**MIT, Harvard Stanford, Princeton**)
- Offer university-level courses from a wide range of disciplines online to a worldwide audience at no charge
- For a **modest fee** certificates of successful completion will be offered **but not INSTITUTIONAL credit**

Quality and Relevance

- Only about 10% completion rate
- Difficult to grade a student's work if there is no way to verifying who completed tasks set
- Students complain their work is plagiarised and there are no controls
- How much will students learn from peer, rather than tutor, assessment / interaction

Pearson Education Centers

- To boost the credibility of “graduates” from Udacity and edX Pearson’s testing centers will facilitate proctored exams/tests
- Students who pass exams at a Pearson testing center will be given a certificate that notes that their final exam was **proctored**, according to Agarwal
- The availability of supervised, in-person exams could make it difficult for other degree-granting institutions to deny **course credit** to students who pass them.

International Recognition

- When countries “credential” qualifications do they favour content and structure?
- Are individual conceptions of “quality” focused on **institutional brands**?



Dependency

?

10 Universities world-wide?

Empowerment

Premise

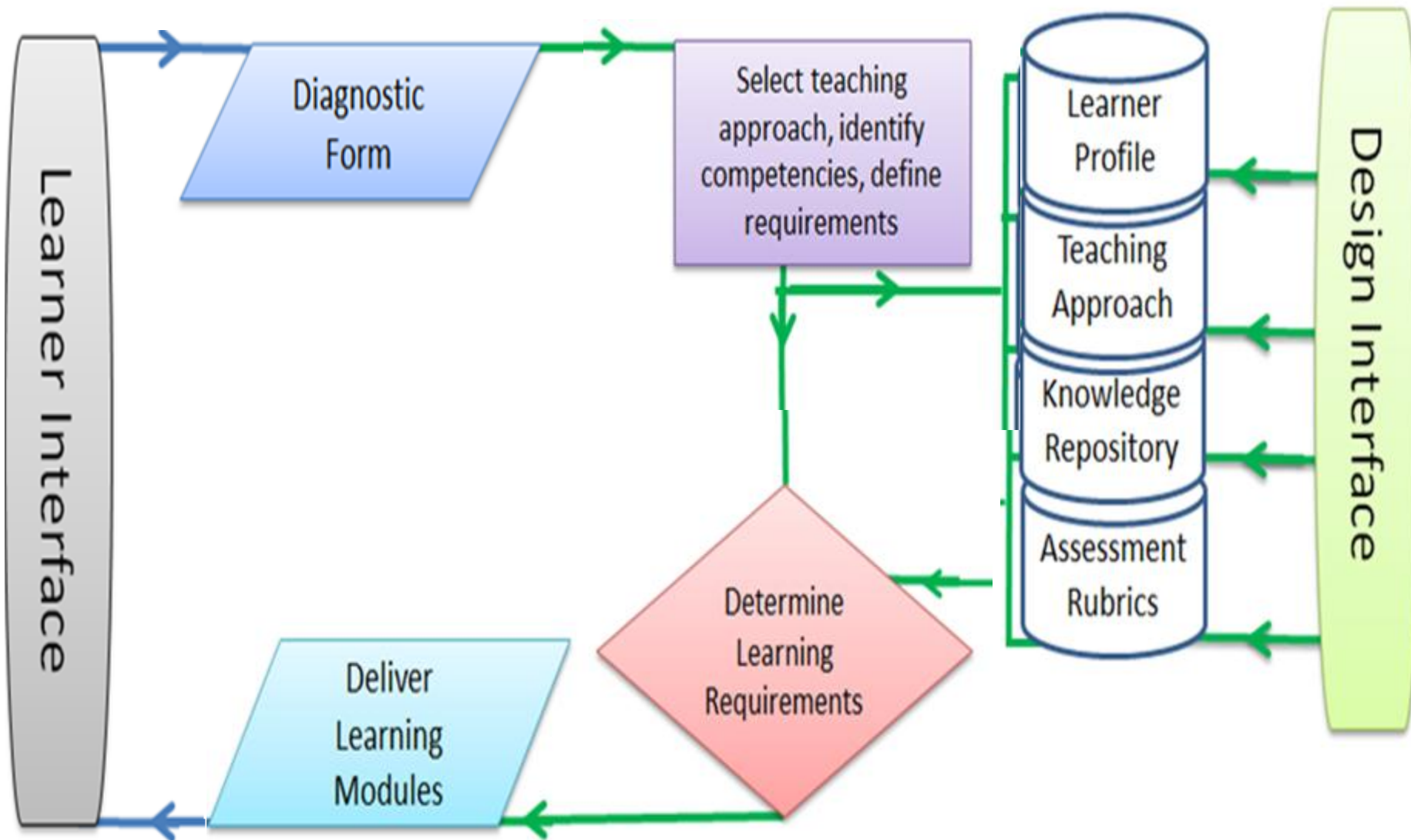
To provide open access to internationally recognised education, regardless of culture, physical location, economic background or language.

Mass-Customisation


- Under the philosophy of mass customisation educational offerings are designed to meet an individual learner's requirements with mass-production efficiency.
- In essence learners create learning activities customised to their own needs at a cost similar to pre-made, “off-the-shelf” mass offered courses

Constructing Personalised Environments


- learners interact with the environment through an intuitive user interface.
- The data gathered interacts with distinct databases, such to create personalised learning plans (PLP)
- The PLP is delivered to the learner in an environment they are comfortable and competent in.




Pictorial Carpet



Emerging Technologies Centre



Te Taiwhanga Hangarau Mohiou



The **Competency Assessment Tool (The CAT)** has been designed to enable you to assess your current competency in a defined range of activities.

Demonstrate knowledge of support systems required for the provision of open, flexible, and networked learning.

| | |
|---|---|
| Demonstrate a commitment to the role of an OFNL teacher as a responsible and ethical practitioner. | Understanding ● Evidence ● Moderation ● |
| Demonstrate research-based knowledge of pedagogically effective use of OFN technologies. | Understanding ● Evidence ● Moderation ● |
| Apply OFNL technology in a range of environments to meet the needs of a diverse student population. | Understanding ● Evidence ● Moderation ● |

Develop materials for open, flexible, and networked learning

| | |
|--|---|
| Design OFN technology plans and budgets. | Understanding ● Evidence ● Moderation ● |
| Create and use multimedia and Web-based resources that advance student learning in OFNL environments. | Understanding ● Evidence ● Moderation ● |
| Integrate OFNL technology through evidence-based practice to strengthen and transform teaching and student learning. | Understanding ● Evidence ● Moderation ● |

Facilitate learning in an open, flexible, and networked learning (OFNL) environment

| | |
|---|---|
| Analyse, adapt and apply new thinking and action to changing technology and technological environments. | Understanding ● Evidence ● Moderation ● |
| Use a range of OFNL technologies to communicate and collaborate with students, colleagues and stakeholders. | Understanding ● Evidence ● Moderation ● |
| Engage in personal and collegial professional development to aid ongoing professional learning in the domain of OFNL. | Understanding ● Evidence ● Moderation ● |

Manage the provision of open, flexible, and networked learning.

| | |
|--|---|
| Apply leadership skills to establish a vision for OFNL technology integration. | Understanding ● Evidence ● Moderation ● |
| Advocate for change management to build programme, student and technical support for OFNL initiatives. | Understanding ● Evidence ● Moderation ● |

Step 1

Participants are asked to reflect on their current practice using The CAT.

Step 2



Their responses are aggregated to provide a “pictorial carpet” illustrating their capability in open, flexible, and networked learning

Step 3

They can now use this pictorial carpet to identify their strengths and areas of potential improvement



Competent, confident and capable in this aspect



Has a degree of competence and confidence in this aspect



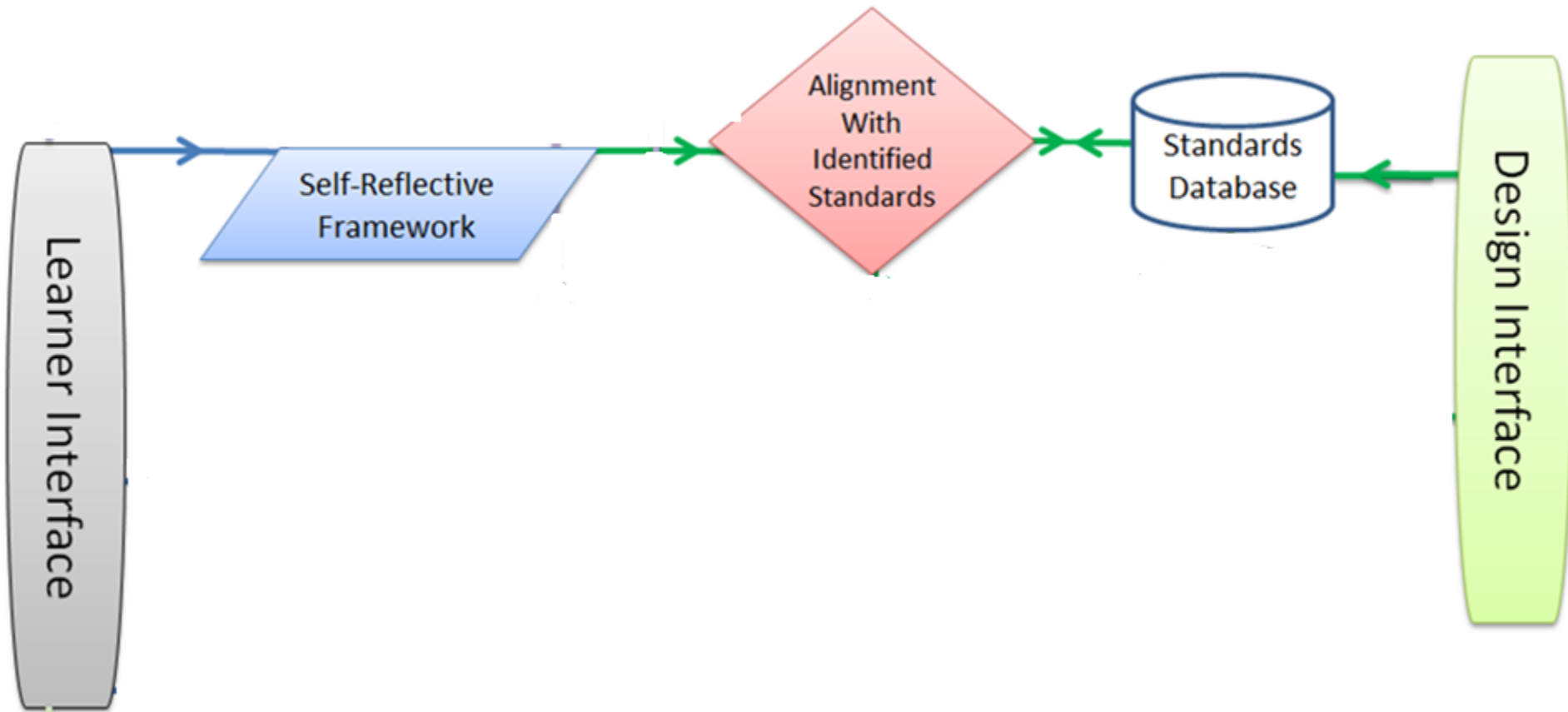
Needs to acquire competence and confidence in this aspect

Portfolios

- A professional portfolio is the **purposeful** collection of an individual's activity. Structured to demonstrate effort and achievement against professional standards
- In accreditation environments digital portfolios can provide a protected space where learner evidence of competencies can be rigorously controlled and systematically evaluated

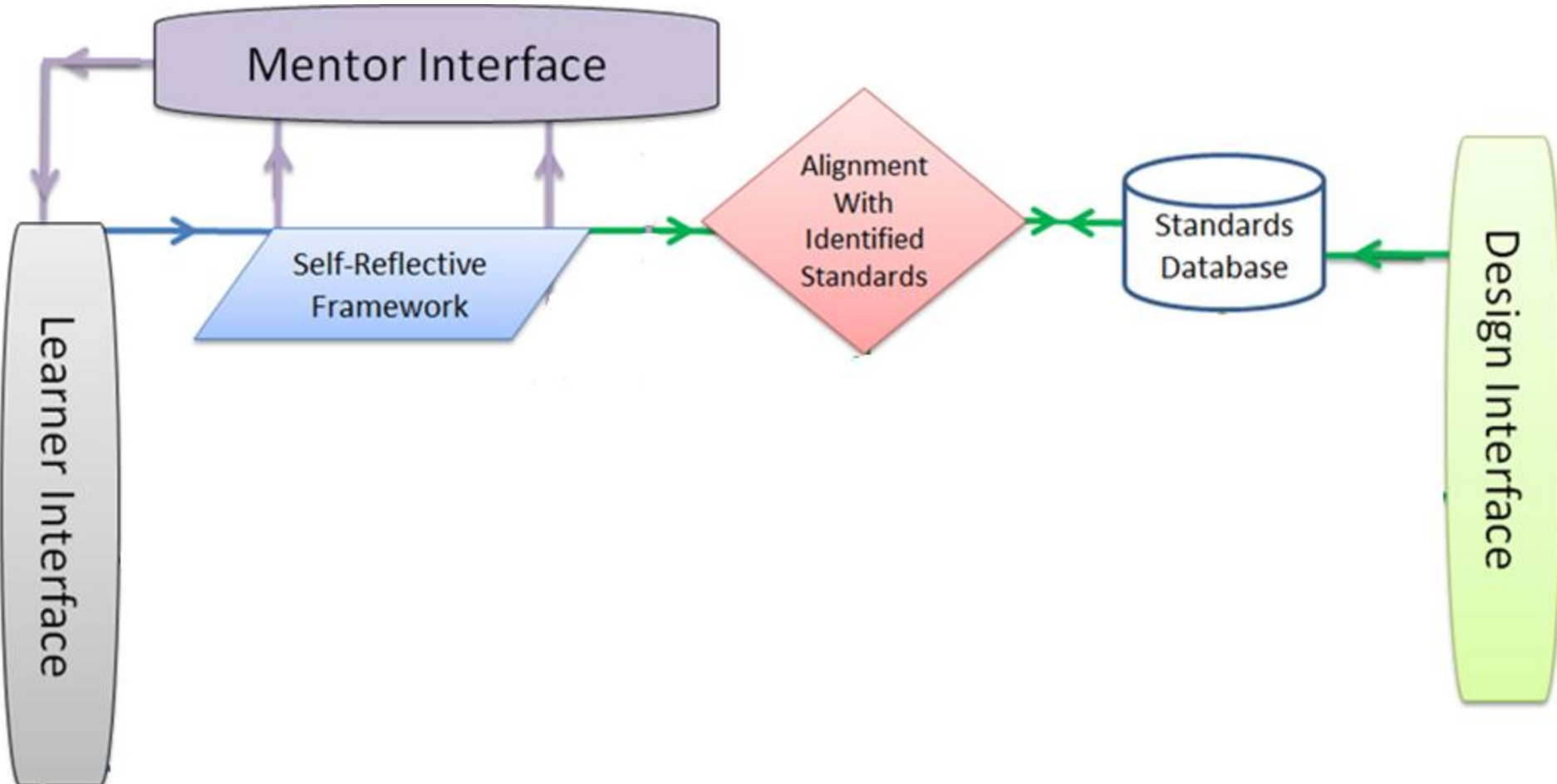
Mass Customised Frameworks 1

- **Firstly**, the learner engages with the environment through an intuitive user interface. The interface uses an interactive self-reflective questionnaire, based on a discipline specific assessment rubric, to gather data on the learners' current capabilities and existing knowledge.



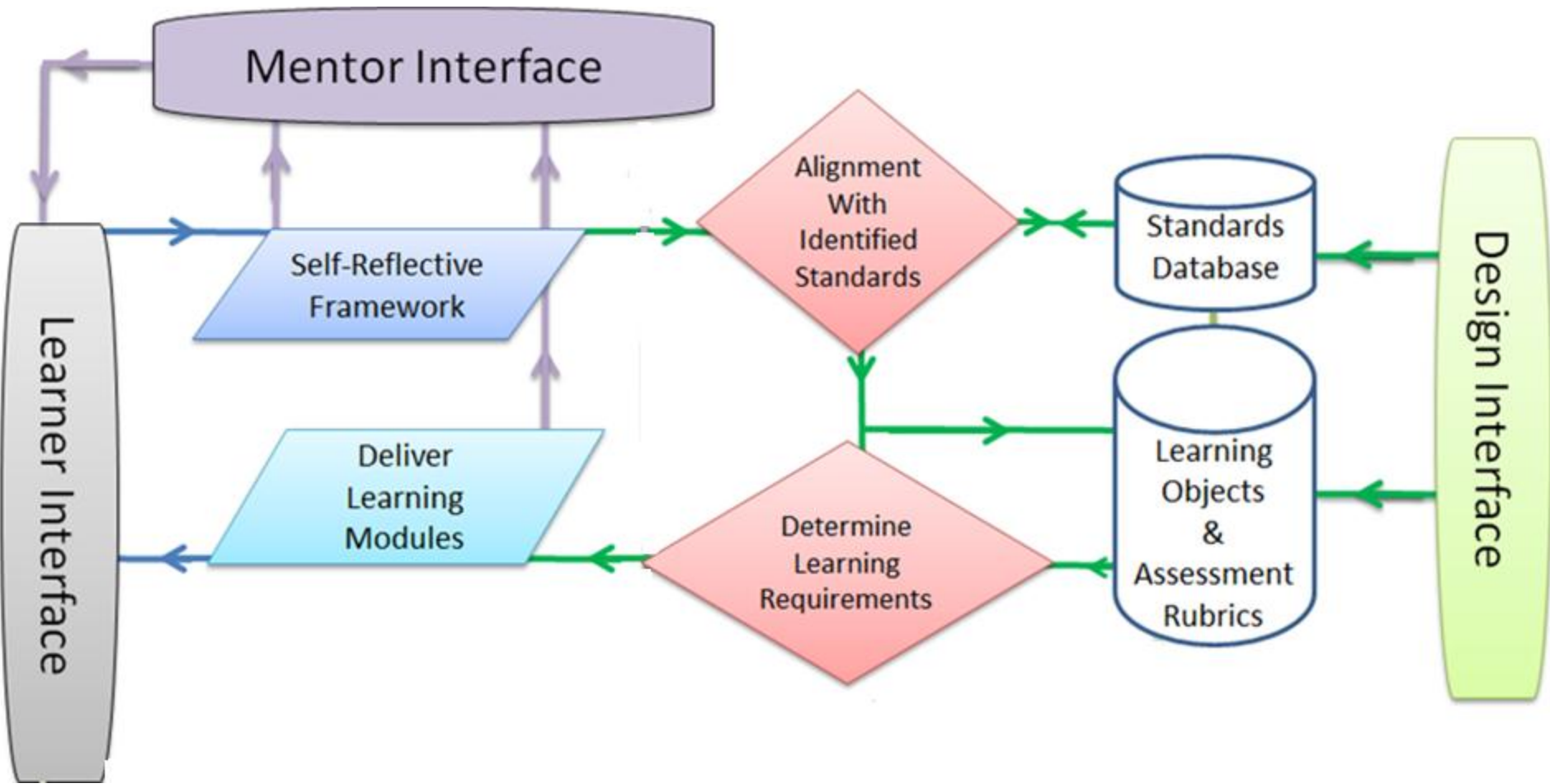
Mass Customised Frameworks 2

- **Secondly**, the data gathered from the self-reflective questionnaire is firstly, sent to a mentor appointed to facilitate learner progression to identified goals and secondly, aligned with industry accepted standards and gaps in learners current competencies and industry accepted standards are automatically identified.



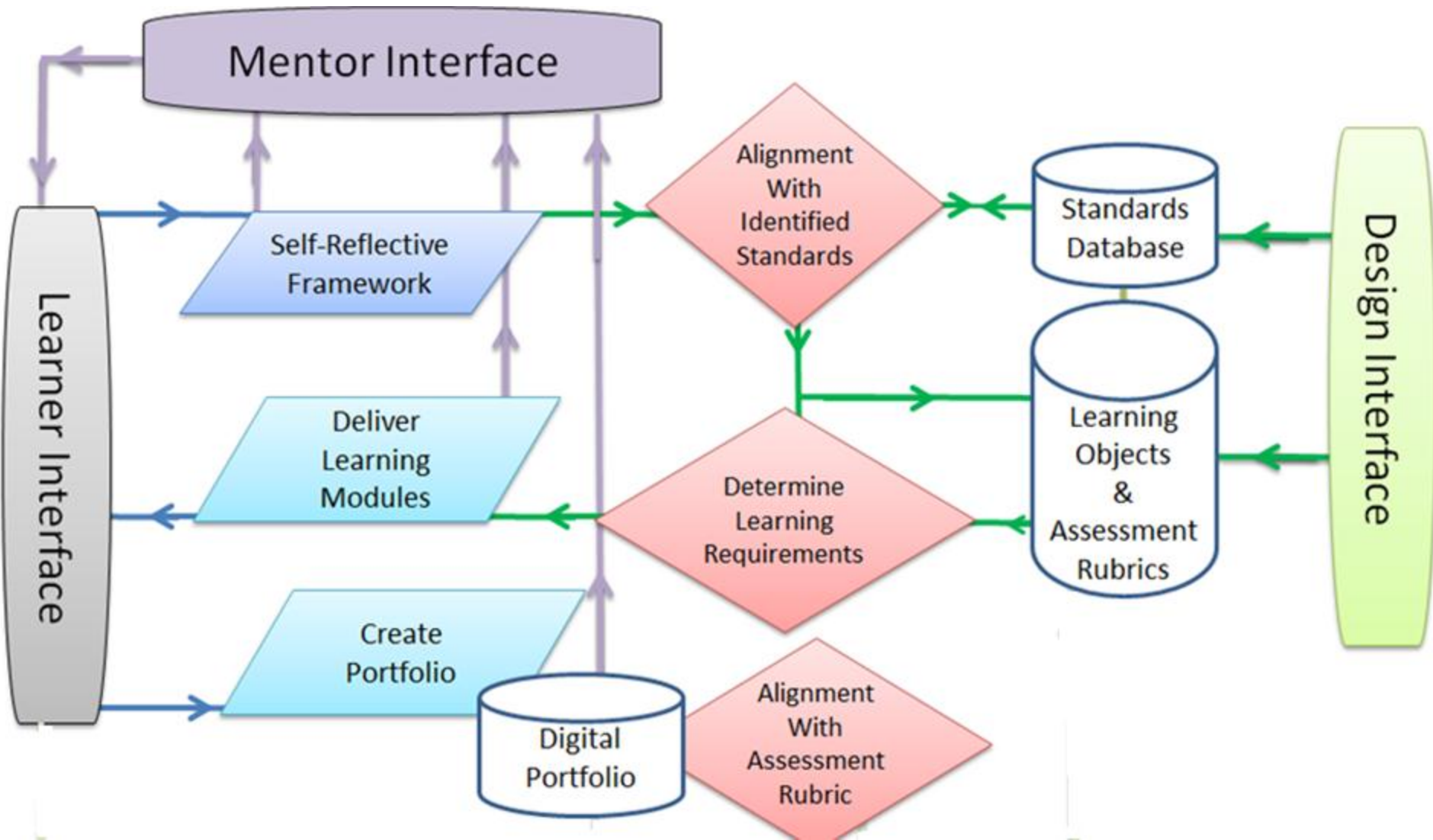
Mass Customised Frameworks 3

- **Thirdly**, the gaps identified between the learners current knowledge and industry requirements are used as filters to interact with a complex learning object database, (containing all learning activities to meet standards identified) to automatically generate a customised learning module. This learning module is delivered to the learner for action and to the mentor for information.



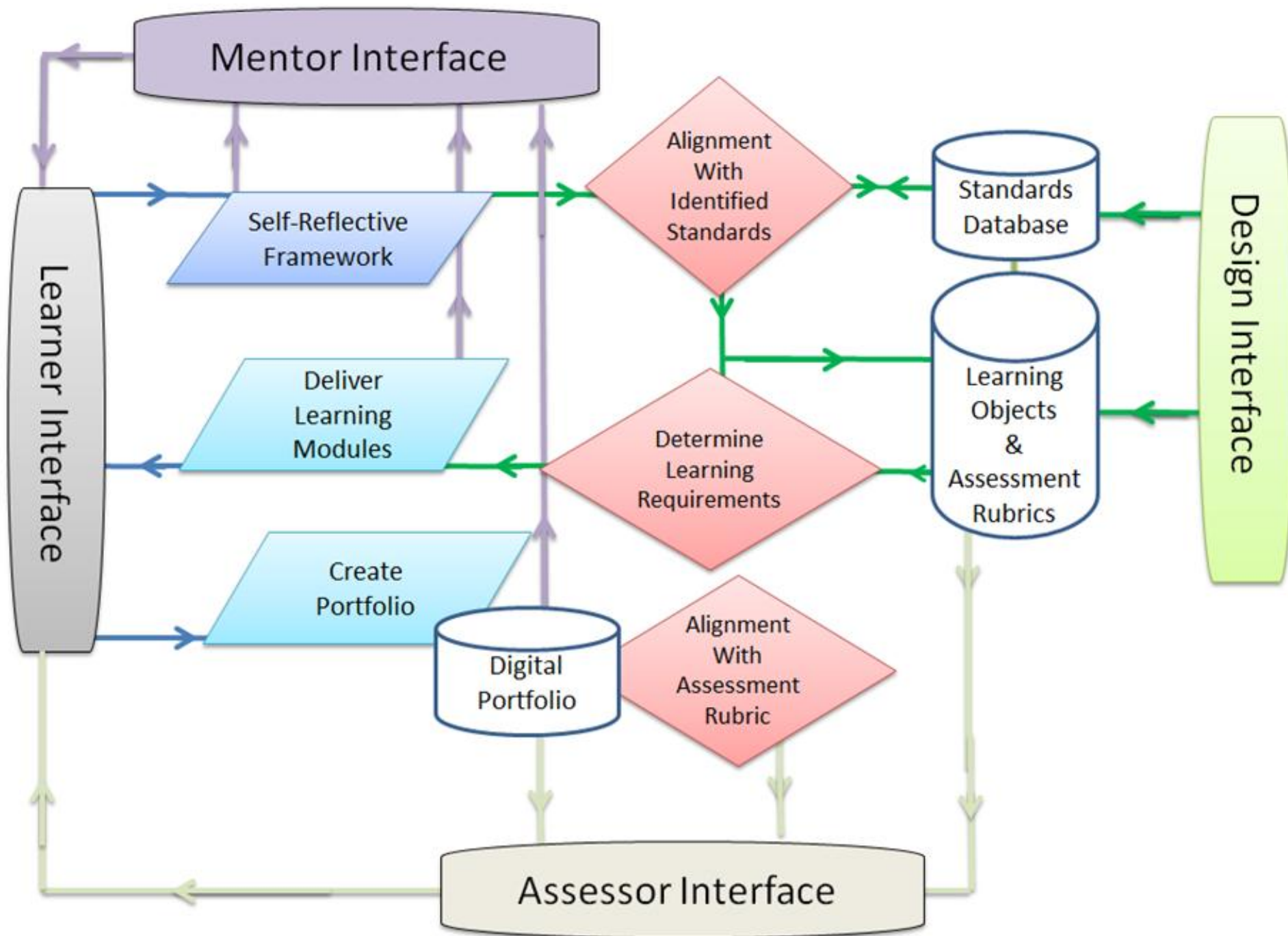
Mass Customised Frameworks 4

- Fourthly, the learner works through the individualised module and creates evidence to demonstrate their newly acquired competencies. During this stage the learners, guided by their mentor, provide evidence of their previously stated capabilities and knowledge. All the evidence generated is stored in a digital portfolio aligned to an identified assessment rubric.



Mass Customised Frameworks 5

- Finally, when the learner and mentor agree the evidence gathered meets all requirements of the assessment rubric the portfolio is sent to an independent assessor. The independent assessor reviews the evidence presented and once more aligns this evidence with the assessment rubric. The assessor's judgement is then passed onto the learner.



International Recognition

Step 1: Best practice professional standards identified and agreed upon by consortium of international providers.

Step 2: Interactive interface, in multiple languages, designed and deployed.

Step 3: Qualified mentors and assessors are registered with consortium

Step 4: Professional portfolios meeting identified standards created and assessed.

Quality Assurance

Process 1: Best practice professional standards reviewed and accepted by experts in the discipline.

Process 2: All participant final portfolios assessed against agreed standards by independent assessors.

Process 3: Agreed portion of institutional/mentor assessments moderated by quality assurance panel.



Standards Not Brands

Empowerment

Models

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