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Stellungnahme zum Nationalen Bildungspanel (NEPS)

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Vorbemerkung

Das Land Bayern hat den Wissenschaftsrat im Mai 2012 gebeten zu prüfen, ob das Nationale Bildungspanel (NEPS), Bamberg, die Kriterien einer Forschungseinrichtung in der gemeinsamen Förderung durch Bund und Länder nach der Ausführungsvereinbarung zum GWK-Abkommen über die gemeinsame Förderung der Mitgliedseinrichtungen der Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e.V. (Ausführungsvereinbarung WGL [AV-WGL]) erfüllt. |¹ Bei diesen Einrichtungen handelt es sich um selbständige Einrichtungen der Forschung und der wissenschaftlichen Infrastruktur von überregionaler Bedeutung und gesamtstaatlichem wissenschaftspolitischem Interesse, die auf der Grundlage von Artikel 91b des Grundgesetzes sowie der Ausführungsvereinbarung WGL vom 27. Oktober 2008 gefördert werden.

Der Wissenschaftsrat hat den Evaluationsausschuss im Juli 2012 gebeten, die Evaluation des NEPS durchzuführen und eine entsprechende Arbeitsgruppe einzusetzen. In dieser Bewertungsgruppe haben auch Sachverständige mitgewirkt, die nicht Mitglieder des Wissenschaftsrates sind. Der Wissenschaftsrat ist ihnen zu besonderem Dank verpflichtet.

Die Bewertungsgruppe hat das NEPS am 13./14. Dezember 2012 besucht und auf der Grundlage dieses Besuchs einen Bewertungsbericht verfasst. Nach Verabschiedung durch die Bewertungsgruppe ist der Bewertungsbericht im weiteren Verfahren nicht mehr veränderbar.

Der Evaluationsausschuss des Wissenschaftsrates hat auf der Grundlage dieses Bewertungsberichts am 18. März 2013 den Entwurf einer wissenschaftspolitischen Stellungnahme erarbeitet.

Der Wissenschaftsrat hat diese Stellungnahme auf seinen Sitzungen vom 24. bis 26. April 2013 beraten und verabschiedet.

|¹ Ausführungsvereinbarung WGL vom 27. Oktober 2008, BAnz Nr. 18a vom 4. Februar 2009, S. 8.

A. Kenngrößen

Das Nationale Bildungspanel (*National Educational Panel Study*, NEPS) wird seit 2009 von einem dezentral organisierten, interdisziplinären Konsortium von Forschungseinrichtungen, Forschergruppen und einzelnen Wissenschaftlerinnen und Wissenschaftlern durchgeführt. Das Projekt wird zentral an der Universität Bamberg koordiniert und ist am dortigen Institut für Bildungswissenschaftliche Längsschnittforschung (INBIL) angesiedelt. Das NEPS-Konsortium besteht aus elf unbefristeten und drei befristeten Professuren der Universität sowie 19 externen Konsortialpartnern aus ganz Deutschland. Die Mitglieder vertreten ein breites Spektrum an wissenschaftlichen Disziplinen und Subdisziplinen, von Soziologie, Erziehungswissenschaft, Psychologie, Bildungsökonomie über Arbeitsmarkt- und Berufsforschung, Armutsforschung, Kindheits- und Jugendforschung, Familienforschung, Geschlechterforschung, Migrationsforschung, Demografie, Kulturwissenschaft und Umfrageforschung bis zur Diagnostik und Testtheorie.

Ziel der Paneluntersuchung ist die Erhebung von Längsschnittdaten zu Bildungserwerb, Bildungsprozessen und Kompetenzentwicklung in Deutschland. Mit dem Ziel, Informationen über den gesamten Lebensverlauf von der frühen Kindheit bis ins hohe Erwachsenenalter zur Verfügung zu stellen und in diesem Zusammenhang innerhalb weniger Jahre Daten zu verschiedenen Abschnitten der Bildungsbiografie zu erheben, wurden von 2009 bis 2012 sechs verschiedene Startkohorten mit insgesamt rund 100.000 Teilnehmerinnen und Teilnehmern gezogen (Neugeborene, Kindergarten, Klasse 5, Klasse 9, Studierende, Erwachsene). In den entsprechenden sechs verschiedenen Teilpanelstudien des NEPS werden in regelmäßigen Abständen Befragungen und Erhebungen durchgeführt und die individuellen Bildungskarrieren der Studienteilnehmerinnen und -teilnehmer verfolgt. Im NEPS werden außerdem zwei Zusatzstudien zur organisatorischen Reform der Oberstufe in Thüringen und zur G8-Reform in Baden-Württemberg durchgeführt.

Die Panelstudie wurde auf Initiative des Bundesministeriums für Bildung und Forschung (BMBF) konzipiert und eingerichtet. Nach einer positiven Bewertung des Projektantrags in zwei Begutachtungsverfahren der Deutschen Forschungsgemeinschaft (DFG) wird das Projekt vom BMBF finanziert und von den Ländern

und der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (KMK) unterstützt. Außerdem fördert die DFG im Rahmen eines Schwerpunktprogramms (Schwerpunktprogramm 1646 „*Education as a Lifelong Process*“) im Zeitraum von 2012 bis 2017 mehrere Projekte, die auf der Analyse von NEPS-Daten basieren.

Das BMBF finanziert das NEPS als groß angelegtes Forschungsinfrastrukturprojekt innerhalb seines Rahmenprogramms zur Förderung der empirischen Bildungsforschung für einen Zeitraum von fünf Jahren (2009-2013) mit rund 85 Mio. Euro. Davon werden insgesamt rund 46 Mio. Euro für die Datenerhebung aufgewendet. Im Jahr 2011 wurden etwa 9 Mio. Euro für die Datenerhebung und rund 5 Mio. Euro für Personalkosten verausgabt. Zusätzlich fördert das Land Bayern das NEPS durch die Bereitstellung der Grundausrüstung an der Universität Bamberg und durch die Finanzierung dreier befristeter Professuren, die die Umsetzung der Panelstudie unterstützen.

Da das NEPS selbst ein Drittmittelprojekt ist, sind seine Möglichkeiten zur Einwerbung weiterer Drittmittel begrenzt. In der Vergangenheit konnte das Konsortium allerdings Mittel akquirieren, um die Stichprobe einer der Startkohorten zu vergrößern.

Das NEPS verfügte zum 30.6.2012 über 82,25 Stellen für wissenschaftliches Personal in Vollzeitäquivalenten (VZÄ), die vom BMBF finanziert wurden. Davon sind 78,75 Stellen tatsächlich besetzt. Aufgrund der zeitlich begrenzten Projektförderung sind alle Mitarbeiterinnen und Mitarbeiter befristet beschäftigt. Insgesamt arbeiteten zum 30.6.2012 211 Personen im Projekt, von denen 132 aus den Mitteln des BMBF finanziert wurden. |² Davon waren 121 Personen als wissenschaftliches Personal beschäftigt, 69 an der Universität Bamberg und 52 bei den Konsortialpartnern. Der Frauenanteil am wissenschaftlichen Personal betrug rund 56 %.

|² Nicht vom BMBF finanziert wurden zum Beispiel die beteiligten Professorinnen und Professoren und zwölf Postdocstellen, die die Konsortialpartner aus eigenen Mitteln zur Verfügung stellten.

B. Aufgaben

Ziel der NEPS-Studie ist die Erhebung von Längsschnittdaten zu Kompetenzentwicklung, Bildungsprozessen und Bildungsentscheidungen sowie Bildungsrenditen in formalen, nicht-formalen und informellen Kontexten über den gesamten Lebensverlauf.

Als Forschungsinfrastruktureinrichtung hat das NEPS-Konsortium die Aufgabe, das Panel zu konzipieren, d. h. das Studiendesign sowie die inhaltliche Rahmenkonzeption zu entwickeln und zu implementieren, und die Studie durchzuführen, d. h. die Daten zu erheben, aufzubereiten und für die wissenschaftliche Nutzung zur Verfügung zu stellen. Auch die methodische und inhaltliche Weiterentwicklung der Längsschnittuntersuchung gehört zu den Aufgaben des Konsortiums.

Die Datenerhebung selbst wird im Auftrag des Konsortiums von zwei Erhebungsinstituten durchgeführt. |³ Die Bearbeitung der Daten und deren Bereitstellung für die wissenschaftliche Auswertung obliegt allein dem NEPS-Konsortium. Außerdem übernimmt es umfangreiche Dienstleistungsaufgaben für die Nutzerinnen und Nutzer der NEPS-Daten.

|³ Dabei handelt es sich um das Infas Institut für angewandte Sozialwissenschaften und das *Data Processing and Research Center of the International Association for the Evaluation of Educational Achievement* (IEA DPC).

C. Forschungs- und Infrastrukturleistungen

Die primär dienstleistungs- und servicebezogenen Aufgaben des NEPS-Konsortiums basieren auf eigenständiger Forschung in allen für die Konzeption und Durchführung der Studie relevanten Bereichen. Die jeweiligen Forschungsleistungen sind zu großen Teilen als exzellent zu bewerten und insgesamt von hoher Qualität, die sich in der Güte der NEPS-Datensätze niederschlägt.

Das Multi-Kohorten-Sequenz-Design mit seinen sechs Startkohorten ermöglichte, innerhalb weniger Jahre Daten zu verschiedenen Abschnitten der Bildungsbiografie zu erheben. Dank einer methodisch klugen Anlage der Studie sind darüber hinaus die Daten der verschiedenen Kohorten auf einer theoretischen Ebene miteinander vergleichbar, was ihre Qualität und die Vielfalt von Forschungs- und Nutzungsmöglichkeiten zusätzlich erhöht. Als konzeptionell überzeugende Grundvoraussetzung für die Reichhaltigkeit der Datensätze ist die interdisziplinär angelegte und erfolgreich umgesetzte inhaltliche Rahmenkonzeption der Längsschnittuntersuchung einzuschätzen: Im NEPS werden acht verschiedene Bildungsetappen unterschieden. |⁴ Die inhaltliche Integration dieser Etappen wird durch eine Orientierung an fünf theoretisch miteinander verbundenen Dimensionen („Säulen“) gewährleistet. |⁵ Die Säulen und Etappen strukturieren das NEPS in einer Weise, die die Generierung von kohärenten und

|⁴ Etappe 1: Neugeborene und Eintritt in frühkindliche Betreuungseinrichtungen; Etappe 2: Kindergarten und Einschulung; Etappe 3: Grundschule und Übertritt in eine Schulart der Sekundarstufe I; Etappe 4: Wege durch die Sekundarstufe I und Übergänge in die Sekundarstufe II; Etappe 5: Gymnasiale Oberstufe und Übergänge in (Fach-)Hochschule, Ausbildung oder Arbeitsmarkt; Etappe 6: Übergänge in die berufliche Ausbildung und in den Arbeitsmarkt; Etappe 7: Hochschulstudium und Übergang in den Beruf; Etappe 8: Bildung im Erwachsenenalter und lebenslanges Lernen.

|⁵ Säule 1: Kompetenzentwicklung im Lebenslauf; Säule 2: Bildungsprozesse in lebenslaufspezifischen Lernumwelten; Säule 3: Soziale Ungleichheit und Bildungsentscheidungen im Lebenslauf; Säule 4: Bildungserwerb von Personen mit Migrationshintergrund im Lebenslauf; Säule 5: Bildungsrenditen im Lebenslauf.

konsistenten Daten zu Kompetenzentwicklung, Bildungsprozessen, Bildungsentscheidungen und Bildungsrenditen sowie den Bedeutungen von Lernumwelten, sozialen Ungleichheiten und Migrationshintergründen über die gesamte Lebensspanne hinweg erlaubt. Zugleich ermöglichen die Daten die Bearbeitung von etappenspezifischen Forschungsfragen. Auf der Grundlage eines sehr originellen methodischen Forschungsansatzes wird ein weltweit einzigartiger Datensatz erzeugt, der von kaum zu überschätzendem Wert für eine nationale und internationale, interdisziplinäre Nutzerschaft ist.

Die Leistungen auf dem Gebiet der Entwicklung und Anpassung der Erhebungsinstrumente sowie der Methoden der Umfrageforschung sind ebenfalls von hoher Qualität. Auch im Bereich des Datenmanagements und der statistischen Methoden leistet das NEPS-Konsortium ausgezeichnete Arbeit. Die Qualität und der Informationsgehalt der durch Kodierung, Imputation, Gewichtung, Anreicherung mit Metadaten usw. aufbereiteten Daten sind sehr hoch. Darüber hinaus werden die Daten in vergleichsweise kurzer Zeit nach der Erhebung den Nutzerinnen und Nutzern zugänglich gemacht. Mit Blick auf die Datenzugangswege ist das NEPS-Konsortium international führend. Durch Übernahme und Weiterentwicklung bestehender Systeme sowie verschiedene Innovationen ist der Zugang zu NEPS-Daten ausgesprochen benutzerfreundlich gestaltet.

Das NEPS-Konsortium erbringt in den verschiedenen Stadien der Datengenerierung Forschungsleistungen von hoher Qualität, obwohl es in einigen Bereichen mit Beschränkungen umgehen muss. So führt das Personal der Forschungsinfrastruktur, das vom BMBF finanziert wird, im Rahmen seiner Arbeitszeit keine eigene Forschung durch. In der aktuellen Projektphase gibt es außerdem keine Möglichkeiten zur Nachwuchsförderung im Rahmen von Promotions- und Habilitationsprojekten oder der Beteiligung des Personals an der universitären Lehre.

Bei den Schulkohorten ist das NEPS mit verschiedenen Restriktionen konfrontiert, die die Reichhaltigkeit der entsprechenden Datensätze einschränken. Als ungünstig erweist sich einerseits die uneinheitliche Auslegung von datenschutzrechtlichen Bestimmungen in verschiedenen Ländern. Dies hat zur Folge, dass in einigen Ländern bestimmte Informationen mit Relevanz für kindliche und jugendliche Bildungsprozesse nicht erhoben werden dürfen.

Um die Erlaubnis zur Durchführung von Befragungen an Schulen zu erhalten, musste das NEPS-Konsortium andererseits eine Vorbedingung der KMK akzeptieren, wonach die NEPS-Datensätze keine länderspezifischen Informationen enthalten dürfen, die eine Veröffentlichung von Aussagen über einzelne Länder oder gar ein „Ranking“ erlauben würden. Für wissenschaftliche Fragestellungen und die Entwicklungen von komplexen Modellen zur Datenanalyse sind Informationen zu länderspezifischen Besonderheiten jedoch essentiell.

Die Vortragstätigkeiten und Konferenzaktivitäten des wissenschaftlichen Personals des NEPS sind im nationalen wie internationalen Bereich sehr rege und tragen zur Sichtbarkeit der Studie bei. Die Anzahl der wissenschaftlichen Publikationen ist im Moment jedoch noch als zu gering einzuschätzen. Dies gründet sich vor allem im hohen Anfangsaufwand zur Planung und Implementierung der Studie und in der Tatsache, dass die Mitarbeiterinnen und Mitarbeiter nur außerhalb ihrer Arbeitszeit und erst dann mit den NEPS-Daten forschen dürfen, wenn sie der gesamten wissenschaftlichen Nutzerschaft zur Verfügung stehen. Je länger und je mehr Daten zugänglich sind, desto mehr Veröffentlichungen sind zu erwarten, zumal in den einzelnen NEPS-Abteilungen überzeugende Publikationspläne verfolgt werden.

Das NEPS-Konsortium unterhält eine Vielzahl von produktiven wissenschaftlichen Kooperationsbeziehungen im nationalen und internationalen Rahmen. In Deutschland hat das NEPS intensive Kooperationen mit anderen Institutionen im Bereich der empirischen Bildungsforschung etabliert. So ist es etwa Mitglied im interdisziplinären Forschungsverbund „Bildungspotenziale“ der Leibniz-Gemeinschaft. Mit anderen Längsschnittstudien wie dem SOEP (*Socio-Economic Panel Study*), PAIRFAM (*Panel Analysis of Intimate Relationships and Family Dynamics*) und SHARE (*Survey of Health, Ageing and Retirement in Europe*) unterhält das NEPS regelmäßigen Austausch in erhebungsmethodologischen Fragen. So wertvoll derartige Kontakte sind, fehlt es dem NEPS allerdings noch an einer strategischen Platzierung in der europäischen Forschungsinfrastrukturlandschaft. Als einzigartige Längsschnittuntersuchung im Bereich der empirischen Bildungsforschung mit Daten von großer Bedeutung auch jenseits des deutschen Kontexts würde das NEPS diese Landschaft zweifellos bereichern.

D. Organisation und Ausstattung

Das NEPS-Konsortium zeichnet sich durch eine besondere, netzwerkartige Struktur aus. Neben elf Lehrstühlen und drei befristeten Professuren der Universität Bamberg sind zurzeit 19 externe Konsortialpartner aus ganz Deutschland Mitglieder im Konsortium. |⁶ Ohne diese Organisationsform wäre die beeindruckende Zusammenarbeit führender Expertinnen und Experten aus allen Bereichen der Bildungsforschung und damit auch die interdisziplinäre Ausrichtung der Studie kaum denkbar. Um die Kooperation der externen und internen Partner effizient zu gestalten, sind verschiedene Arbeitsabläufe, Austauschmechanismen und regelmäßige Treffen etabliert worden. Das NEPS-Konsortium und besonders die Bamberger Projektleitung haben bewiesen, dass sie die Struktur in einer Weise nutzen können, die die Studie in hohem Maße bereichert. Die dezentrale Struktur des Konsortiums ist eine entscheidende Bedingung für den Erfolg der Längsschnittuntersuchung.

Das NEPS verfügt über einen international zusammengesetzten wissenschaftlichen Beirat, der sich jährlich trifft, um die Arbeit des Konsortiums zu evaluieren und es in Fragen der Weiterentwicklung der Studie zu beraten.

Die Ausstattung des Konsortiums mit Personal, Räumlichkeiten und IT-Infrastrukturen ist dem derzeitigen Bedarf angemessen. Angesichts der Tatsache,

|⁶ Deutsches Institut für Internationale Pädagogische Forschung (DIPF), Frankfurt am Main; Freie Universität Berlin; Hochschul-Informationssystem GmbH (HIS), Hannover; Institut für Arbeitsmarkt- und Berufsforschung (IAB) der Bundesagentur für Arbeit, Nürnberg; Institut für Schulentwicklungsforschung (IFS) an der TU Dortmund; Leibniz-Institut für Wirtschaftsforschung (ifo Institut) an der Universität München e.V.; Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik (IPN) an der Universität Kiel; Ludwig-Maximilians-Universität München; Universität Erlangen-Nürnberg; Universität Gießen; Universität Hamburg; Universität Hannover; Universität Leipzig; Universität Mannheim; Universität Potsdam; Universität Siegen; Universität Tübingen; Wissenschaftszentrum Berlin für Sozialforschung (WZB); Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW), Mannheim.

dass mit einem stetigen Anstieg der Nutzungszahlen zu rechnen ist, werden die Anforderungen an Personalausstattung im Nutzerservice und an die Auslastung und die Kapazitäten der IT-Infrastruktur in Zukunft steigen.

E. Stellungnahme und Förderempfehlung

Innerhalb nur weniger Jahre hat sich das NEPS zu einer weltweit einzigartigen Forschungsinfrastruktureinrichtung entwickelt. In kürzester Zeit ist es gelungen, ein anspruchsvolles Design für die Panelstudie und eine wissenschaftlich überzeugende Rahmenkonzeption zu implementieren, die die Generierung eines inhaltlich breiten und zugleich kohärenten Datensatzes ermöglichen. Das NEPS-Konsortium leistet sehr gute bis exzellente Arbeit in allen Stadien der Datengenerierung, von der Planung der Studie bis zur Bereitstellung der Daten für die wissenschaftliche Nutzung. Die Erweiterung der Untersuchungsperspektive auf die gesamte Lebensspanne, der konsistente interdisziplinäre Zugriff sowie die theoretische Möglichkeit des Datenvergleichs zwischen verschiedenen Startkohorten sind besondere Merkmale der Studie. Sie tragen bereits jetzt dazu bei, der Wissenschaft außergewöhnlich reichhaltige Längsschnittdaten zur Verfügung zu stellen. Die Aussagekraft und Relevanz der Daten wird noch weiter zunehmen, je länger die Studie durchgeführt wird. Die Qualität der Paneldaten und der exzellente Nutzerservice werden die Nutzungszahlen rasch steigern und Forschung ganz unterschiedlicher Disziplinen zu Fragen der Bildungsforschung anregen und ermöglichen. Mit seiner Arbeit leistet das NEPS-Konsortium darüber hinaus wichtige Beiträge zu methodologischen Fragestellungen, Herausforderungen des Datenmanagements und der Datenbereitstellung.

Die wissenschaftliche Auswertung der NEPS-Daten wird nicht nur die empirische Bildungsforschung entscheidend voranbringen, sondern auch wichtige Beiträge zur evidenzbasierten Politikberatung im Bereich der Bildungspolitik leisten können. Die Daten des NEPS enthalten politisch relevante Informationen über Bildungsprozesse und deren vielfältige Determinanten.

Angesichts der überzeugenden wissenschaftlichen Leistungsfähigkeit des NEPS-Konsortiums und der gesellschaftlich-politischen Bedeutung der Studie empfiehlt der Wissenschaftsrat nachdrücklich, die begonnene Entwicklung fortzusetzen. Um die Qualität des NEPS dauerhaft zu sichern und künftig noch weiter

zu steigern, gibt er im Folgenden einige Empfehlungen zur Weiterentwicklung der Panelstudie. Die erfolgreiche Umsetzung dieser Empfehlungen setzt zwingend eine institutionelle Verstetigung des NEPS als Forschungsinfrastruktureinrichtung voraus.

Zur Abbildung von Entwicklungen innerhalb der NEPS-Startkohorten und Dokumentation historischen Wandels ist einerseits eine langfristig angelegte Datenerhebung im Rahmen der bestehenden Kohorten und andererseits die Beobachtung nachfolgender Kohorten (Kohortensukzession) anzustreben. Dazu müssen Rahmenbedingungen geschaffen werden, die eine Konsolidierung des NEPS unabhängig von Einzelpersonen, Instituten und individuellen Forschungsinteressen garantieren. Die institutionelle Struktur sollte sich jenseits zeitlich begrenzter Personalentscheidungen selbst tragen und aus der befristeten Projektförmigkeit herausgelöst werden.

Vor diesem Hintergrund erscheint eine außeruniversitäre Institutionalisierung des NEPS sinnvoll und notwendig. Damit können Möglichkeiten geschaffen werden, um hochqualifiziertem Personal, das den wissenschaftsbasierten Service erbringt, unbefristete Anstellungsverhältnisse anzubieten, und um die dauerhafte Unterhaltung von umfangreichen Dienstleistungsinfrastrukturen sowie offenen Zugang wissenschaftlicher Nutzerinnen und Nutzer dazu zu gewährleisten.

Im außeruniversitären Kontext können die Voraussetzungen für eine institutionelle Unabhängigkeit und Eigenständigkeit geschaffen werden, die der komplexen Struktur des NEPS-Konsortiums entspricht und unabhängig von lokalen Gegebenheiten funktioniert. Eine Aufnahme in die Leibniz-Gemeinschaft würde es insbesondere auch erlauben, bestehende Kooperationen und Synergieeffekte zu stärken. In enger Kooperation mit Universitäten, insbesondere der Universität Bamberg, sollen institutionelle Strategien zur Förderung des wissenschaftlichen Nachwuchses im Rahmen von Promotions- und Habilitationsprojekten entwickelt und die Beteiligung des wissenschaftlichen Personals an der universitären Lehre ermöglicht werden. Die Verbindungen zu der Universität Bamberg sollen wie geplant durch gemeinsame Berufungen des Leitungspersonals des NEPS gestärkt werden.

Der Wissenschaftsrat ist insgesamt von der Notwendigkeit und den Erfolgsaussichten einer stabilen Institutionalisierung des NEPS überzeugt. Dafür gilt es in einem nächsten Schritt die notwendigen Grundlagen zu schaffen. In die entsprechenden Planungen sollte der wissenschaftliche Beirat des NEPS frühzeitig einbezogen werden. Insbesondere bedarf es im Weiteren eines detaillierten Transitionskonzepts, das eine ausgearbeitete Finanz- und Personalplanung sowie Überlegungen zur künftigen Organisation des NEPS enthält. Wesentliche Voraussetzungen dazu sind vom NEPS, dem Zuwendungsgeber und dem Land Bayern bereits geschaffen und entsprechende Festlegungen getroffen worden.

So sind die Satzung des geplanten Instituts und eine Kooperationsvereinbarung zwischen Institut und Universität bereits abgestimmt. Ein Programmbudget für das Jahr 2014, das auch Angaben zur mittelfristigen Finanzplanung enthält, liegt ebenfalls vor und wurde vom Land Bayern bereits bei den Planungen für den Doppelhaushalt 2014/2015 berücksichtigt. Eine Geschäftsordnung, die die Arbeit der satzungsgemäßen Organe reguliert, und eine Vereinbarung, die das Verhältnis der Konsortialpartner zueinander beschreibt, werden im Moment erarbeitet und zeitnah abgestimmt. Die konkrete Einbindung der am NEPS beteiligten Bamberger Professorinnen und Professoren soll bis Herbst 2013 in Entwürfen für Individualvereinbarungen festgelegt werden.

Nach Auffassung des Wissenschaftsrates sollten im Prozess der Transformation von einem befristeten Drittmittelprojekt zu einer verstetigten, außeruniversitären Forschungsinfrastruktureinrichtung folgende Punkte besonders beachtet werden:

Empfehlungen zum Prozess der Institutionalisation

- _ Im Sinne der Stabilisierung der Studie und um die Arbeitsprozesse nicht zu beeinträchtigen, sollte die Übergangsphase so kurz wie möglich gehalten werden.
- _ Zu beachten ist die einzigartige Netzwerkstruktur des Konsortiums. Insbesondere ist der Status der Konsortialpartner, die zum Teil selbst Institute sind, in einer künftigen Einrichtung zu klären.
- _ Besonderes Augenmerk sollte auf die Entwicklung einer *Governance*-Struktur gerichtet werden, die ein gleichgewichtiges Mitspracherecht für alle internen und externen Mitglieder des Konsortiums sowie eine angemessene Beteiligung aller Personalgruppen gewährleistet.
- _ In Ergänzung dieser notwendigen gleichberechtigten Partizipationsmöglichkeiten aller Mitglieder sollte ein starkes Zentrum für das „Netzwerkinstitut“ erhalten werden, das die Gesamtperspektive der Studie gegenüber den spezialisierten Abteilungen vertritt und eine integrierte Weiterentwicklung des NEPS fördert. Da der derzeitige Projektleiter in wenigen Jahren die Altersgrenze erreicht, sollten bereits Vorbereitungen für die Nachfolge getroffen werden. Gemeinsam mit der Universität Bamberg sollte im Rahmen einer offenen internationalen Ausschreibung eine vorgezogene Berufung angestrebt werden, um eine gemeinsame Übergangsphase mit neuer und alter Projektleitung zu ermöglichen und damit einen reibungslosen Übergang zu befördern.

Empfehlungen zum Forschungsprogramm

- _ Forschung des wissenschaftlichen Personals mit den NEPS-Daten sollte in allen Abteilungen ermöglicht werden. Pläne, eine zusätzliche Forschungsabtei-

lung einzurichten, bergen das Risiko einer künstlichen Trennung zwischen Forschungs- und Serviceaufgaben und sollten nicht weiter verfolgt werden.

- _ Die NEPS-Studie sollte als strategischer Bestandteil in die übergeordnete, europäische Forschungsinfrastrukturlandschaft eingebettet werden.
- _ Für evidenzbasierte Forschung und Politikberatung sind empirische Bildungsdaten einschließlich regionaler Strukturdaten unbedingt erforderlich. Im Rahmen der KMK muss über die bestehenden Beschränkungen der Datenerhebung und Datenbereitstellung verhandelt werden, um eine Einschränkung wissenschaftlicher Forschung zu vermeiden, zumal die Restriktionen hinsichtlich länderspezifischer Daten nicht nur aus wissenschaftlicher Perspektive zu kritisieren sind, sondern auch die Aussagekraft der NEPS-Daten und darauf basierender Forschung für gesamtgesellschaftlich relevante Fragestellungen einschränken. Der Wissenschaftsrat hält es für unabdingbar, dass länderspezifische Informationen den Nutzerinnen und Nutzern nicht nur zur Verfügung gestellt, sondern auch Publikationen entsprechend wissenschaftlicher Standards ermöglicht werden. Nur dann können die mit hohem – auch finanziellem – Engagement erhobenen Daten in angemessener Form und so umfassend wie qualitätsgesichert genutzt werden.

Empfehlungen zur künftigen Finanzierung

- _ Eine dauerhafte Institutionalisierung des NEPS erfordert eine angemessene und verlässliche Finanzierung. Die Bereitschaft des Bundes und des Landes Bayern, die langfristige Finanzplanung für das NEPS am wissenschaftlichen Bedarf zu orientieren, ist ein wichtiges Signal in diese Richtung. Künftig gilt es, das einmalige Studiendesign mit seinen sechs Startkohorten zu erhalten sowie die Kohortensukzession zu ermöglichen. Einschnitte in diesem Bereich würden die Qualität der NEPS-Daten und damit zugleich ihren Nutzen für Wissenschaft und Politik beeinträchtigen. Weiterhin muss die Wahrnehmung zusätzlicher Aufgaben auf dem Gebiet der Forschung und angesichts steigender Nutzungszahlen gewährleistet sein.
- _ Im Rahmen der Budgetplanung sollten darüber hinaus die Vorstellungen über die künftige Personalstruktur präzisiert werden. Zu klären ist unter anderem der Status der am NEPS beteiligten Professorinnen und Professoren, die zugleich der Universität Bamberg angehören.

Empfehlung zur Aufnahme in die gemeinsame Förderung durch Bund und Länder

Das NEPS-Konsortium und das Land Bayern streben eine Aufnahme in die gemeinsame Förderung durch Bund und Länder zum 1. Januar 2014 an. Vor dem Hintergrund bestehender Kooperationen innerhalb des Konsortiums – Konsortialpartner wie das WZB und das DIPF sind bereits Mitglieder der Leibniz-

Gemeinschaft – und mit Dritten – etwa innerhalb des Leibniz-Forschungsverbunds „Bildungspotenziale“ – ist eine Einbettung in die Leibniz-Gemeinschaft folgerichtig.

Die NEPS-Studie zu Bildungsprozessen und Kompetenzerwerb in Deutschland von der frühen Kindheit bis ins hohe Erwachsenenalter ist von überregionaler Bedeutung und gesamtstaatlichem wissenschaftspolitischen Interesse.

Der Wissenschaftsrat empfiehlt daher das Nationale Bildungspanel (NEPS) zur Aufnahme in die gemeinsame Förderung durch Bund und Länder nach der Ausführungsvereinbarung WGL.

Der Wissenschaftsrat bittet den Bund und das Land Bayern zeitnah, spätestens in drei Jahren, über die Umsetzung der Empfehlungen zu berichten und behält sich vor, dazu gegebenenfalls Stellung zu nehmen.

Anlage: Evaluation Report
on the **National Educational
Panel Study (NEPS)**

2013

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Preliminary Remarks

The present evaluation report on the National Educational Panel Study (NEPS) is divided into two parts. For the descriptive part, the institution and its funding body have approved the factual accuracy of the final version. The evaluation part reports the assessment of the scientific performance, structures, and organisational characteristics.

A. Description of the NEPS

A.1 HISTORICAL DEVELOPMENT, TASKS, AND CONCEPT OF THE NEPS

I.1 Historical Development

The aim of the National Educational Panel Study (*Nationales Bildungspanel*, NEPS) is to collect longitudinal data which allow studying the acquisition of education and competence development in Germany. The idea to establish an educational panel study originated from the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung*, BMBF) where the need for such a longitudinal study had been discussed since 2003. In 2006, the BMBF commissioned a feasibility study to assess the viability of such a survey.

A consortium of experts in educational research eventually submitted a research proposal which passed two evaluation procedures by expert commissions of the German Research Foundation (*Deutsche Forschungsgemeinschaft*, DFG) successfully. After this approval the BMBF decided to fund the longitudinal study.

In 2009, the NEPS was set up as a large-scale infrastructure project embedded in the Framework Programme for the Promotion of Empirical Educational Research by the BMBF. It has been funded for five years (2009-2013). The NEPS is also supported by the *Länder* (federal states) and the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (*Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland*, KMK). On behalf of the BMBF, the Project Management Agency – part of the German Aerospace Center (*Projektträger im Deutschen Zentrum für Luft- und Raumfahrt*, PT-DLR) monitors the work of the NEPS Consortium.

An interdisciplinary consortium of research institutes, groups of researchers, and individual researchers is conducting the study, which is coordinated at the University of Bamberg and located in the Institute for Longitudinal Educational Research (*Institut für bildungswissenschaftliche Längsschnittforschung*, INBIL) of the university. Besides the University of Bamberg 19 so-called *Konsortialpartner* from

all over Germany are members of the NEPS Consortium. The members are researchers in educational science, educational psychology, developmental psychology, sociology of education, economics of education, labour market and vocational studies, poverty research, research on childhood and adolescence, family studies, gender studies, migration studies, demography, cultural studies, survey research and research on diagnostics and test theory.

In 2011, the DFG established a so-called Priority Programme (Priority Programme 1646 “Education as a Lifelong Process”) which aims at supporting the scientific use of NEPS data. The first funding period is from 2012 until 2014; the second funding period is scheduled from 2015 until 2017.

By summer 2012, the NEPS Consortium has conducted 74 of its 150 planned surveys (including pretest studies, pilot studies, and main surveys). The panel study is based on six separate starting cohorts with nearly 60,000 target persons and additional 40,000 context persons (*Kontextpersonen*) at the first measurement waves. All participants are being surveyed once or twice a year. The data collection for the first cohort started in 2009; the last starting cohort began in 2012. The collected data are made available in form of so-called Scientific Use Files (SUFs). The first SUF was released in December 2011; further releases are currently being prepared and are scheduled for September/October 2012.

1.2 Tasks

The NEPS has been set up as an infrastructure facility to collect longitudinal data for the scientific community in order to facilitate studies on how education is acquired, how it impacts on individual’s biographies and participation in society, and to describe and analyse the major educational processes and trajectories across the life span. Thus, the key task of the NEPS Consortium is to conduct the study, i. e. to collect and disseminate the longitudinal data.

To this end, the six NEPS starting cohorts with about 100,000 participants had to be sampled and recruited. In terms of study design and structure the NEPS Consortium had to develop a theoretical framework and a data collection design. Suitable survey instruments had to be selected respectively developed.

Although the NEPS Consortium carries the overall responsibility for the panel study, there are two data collection institutes in charge of the fieldwork: the Data Processing and Research Center of the International Association for the Evaluation of Educational Achievement (IEA DPC) and the Institute for Applied Social Studies (infas). The NEPS Consortium stresses that the fieldwork is closely monitored by NEPS staff and that the interviewers are selected carefully.

Unlike the fieldwork, the processing, editing, and provision of NEPS data are conducted by the NEPS staff. Important aspects of the data preparation procedure are anonymisation, data cleaning, editing, coding, variable generation,

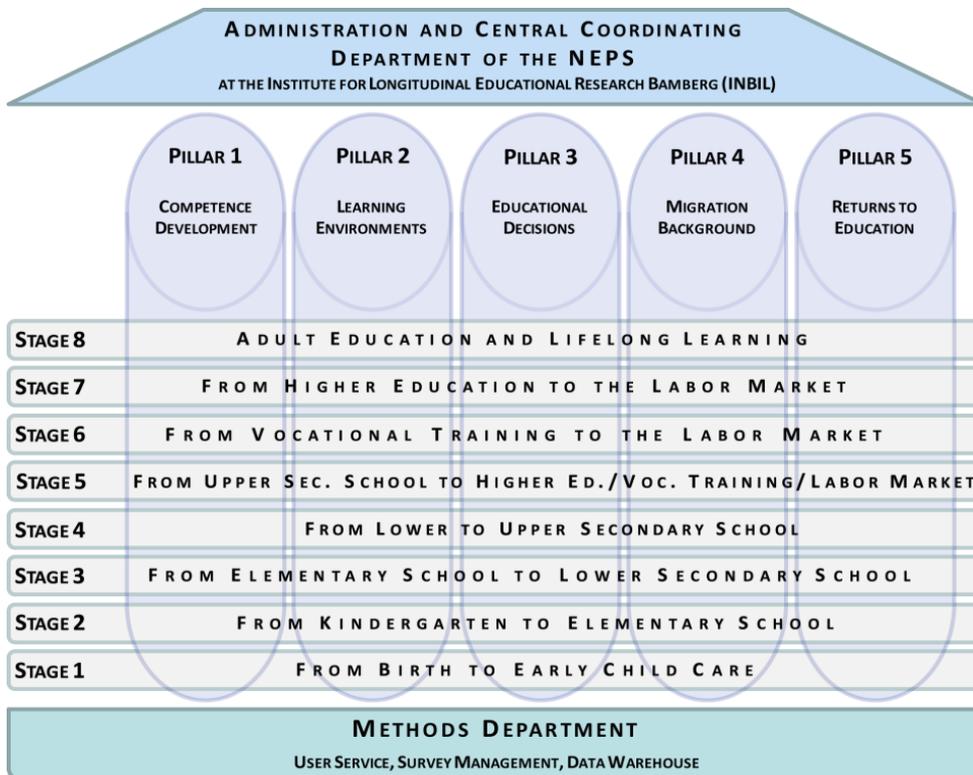
data enrichment, data linkage, and quality testing. Finally, an infrastructure and a user service had been established to provide NEPS data to the scientific community.

The NEPS Consortium emphasises that – according to the funding aims and in the current project phase – it is not intended that the members of the NEPS staff carry out own research on content-related questions. Moreover, they are not allowed to use NEPS data before the data is available for the whole scientific community. This restriction was a precondition for the funding of the Priority Programme of the DFG.

1.3 The NEPS Concept and Design

The NEPS is a longitudinal study which collects data on educational processes by surveying the same target persons at regular intervals. In order to cover the whole life course the NEPS Consortium runs six separate panel studies. Diachronically, the studies focus on eight educational stages ranging over the entire life course. The NEPS Consortium stresses that the longitudinal integration of these stages is ensured by a theoretical orientation toward five major inter-linked dimensions, the so-called pillars. Together, the pillars and the stages form a two-dimensional matrix which builds the framework of the NEPS.

Figure 1: Framework of the NEPS



Source: NEPS Consortium

The Pillars of the NEPS are: Competence Development Across the Life Course, Educational Processes in Life-Course-Specific Learning Environments, Social Inequality and Educational Decisions in the Life Course, Educational Acquisition with Migration Background in the Life Course, and Returns on Education over the Life Course.

Pillar 1: Competence Development Across the Life Course

The task of the first pillar is to formulate developmental models to measure competencies over the whole life course. In order to describe and explain the processes of competence development within and across educational stages and analyse their relevance for future prospects, the NEPS concentrates on certain competencies which are not only relevant for the theoretical approach of Pillar 1 but also for the research focuses of the other pillars. Some of the competencies are measured over the entire life span while others are more stage-specific. The competencies measured within the NEPS are: domain-general cognitive functions; domain-specific cognitive competencies with a special focus on German-language competencies, mathematical literacy, and scientific literacy; meta-competencies, including information and communication technology literacy, meta-cognition, self-regulation, and social competencies; and stage-specific (curriculum- or job-related) competencies and outcome measures.

Pillar 2: Educational Processes in Life-Course-Specific Learning Environments

The second pillar addresses educational processes in various formal, non-formal, informal, and family learning environments. The occurrence, succession, and coexistence of these learning environments (such as kindergarten, school, university, but also family, learning from peers, learning from the media), the transitions between them, and their role for the acquisition of competencies and educational decisions are surveyed. In addition, information about the quality of the different learning opportunities is provided.

Pillar 3: Social Inequality and Educational Decisions in the Life Course

The third pillar focuses on the questions how far and why educational decisions (such as the choice of secondary school, the decision about leaving school or continuing education) vary across socioeconomic groups and gender. It develops instruments for examining these questions. In the process of instrument development it has to be taken into account that the target persons are embedded in different learning environments at the same time and that the persons responsible for educational decisions change over the life course (the child's parents, the child itself).

Pillar 4: Educational Acquisition with Migration Background in the Life Course

The fourth pillar deals with the impact of a migration biography respectively ethnic backgrounds on educational processes. It develops migration-related instruments which consider variations in educational outcomes across different migrant groups. According to the NEPS Consortium, these instruments also allow to disentangle the mechanisms that apply particularly to educational processes of migrants and their children and to assess their relevance. The NEPS focuses on migrants with a Turkish background and ethnic German immigrants from the former Soviet Union.

Pillar 5: Returns on Education over the Life Course

The fifth pillar of the NEPS addresses the returns on education over the life course. It surveys economic returns such as income, employment, and labour market opportunities as well as non-economic returns such as health, subjective well-being, crime and deviant behaviour, social and political participation.

1.3.b Stages

The NEPS distinguishes eight stages of education in Germany: From Birth to Early Childcare, From Kindergarten to Elementary School, From Elementary School to Lower Secondary School, From Lower to Upper Secondary School, From Upper Secondary School to Higher Education, Vocational Training, and the Labour Market, From Vocational Training to the Labour Market, From Higher Education to the Labour Market, and Adult Education and Lifelong Learning.

Stage 1: From Birth to Early Childcare

The first stage measures child competencies such as early cognitive, language, and numerical competencies, or fine motor competencies. It also assesses the quality of the early home learning environment and care settings outside the family. In order to obtain the relevant data, a variety of survey instruments is used, such as parent interviews, questionnaires, natural or semi-structured observations supported by video analytic techniques.

Stage 2: From Kindergarten to Elementary School

The second stage focuses on the transition of target persons from kindergarten to elementary school. It starts with 4-year-old children who are surveyed year by year. Tests and interviews are conducted with the children, their parents, teachers, and principals.

Stage 3: From Elementary School to Lower Secondary School

The third stage deals with elementary school and transition to secondary school. Tests and interviews are carried out with the children, their parents, teachers, and principals.

Stage 4: From Lower to Upper Secondary School

The fourth stage follows the pupils from lower to upper secondary school. Especially, it asks to which extent pupils' competencies correspond to the selected type of school. Moreover, it deals with the development of pupils' competencies in the respective school type.

Stage 5: From Upper Secondary School to Higher Education, Vocational Training, and the Labour Market

The main focus of the fifth stage is on the senior classes of the *Gymnasium* (a school type comparable to grammar school), since the *Abitur* (A levels) allows access to higher education in Germany. The stage surveys traditional and non-traditional pathways to the *Abitur*, the level of competencies *Abitur* pupils possess, how these competencies relate to requirements for studying at a university, and social disparities in the transition to higher education. Furthermore, there are two additional cross-sectional studies embedded in Stage 5: a study in Thuringia and another in Baden-Württemberg which analyse changes due to reforms of the *Gymnasium* and their consequences for the interpretation of NEPS data.

Stage 6: From Vocational Training to the Labour Market

The sixth stage surveys three central transitions in the educational process: the educational decision-making at the end of compulsory education and transitions from school into vocational training, pathways through the vocational training, and entry into the labour market.

Stage 7: From Higher Education to the Labour Market

The seventh stage deals with students in the tertiary education system, their higher education career, and their transition to the labour market. It considers the actual changes in the German tertiary education system (such as introduction of bachelor and master degrees) and persisting problems (such as dropout, inequality, mismatch between resources and number of students). A particular emphasis is put on students in private higher education, teacher training students, and students without a certificate that qualifies them for higher education.

The eighth stage focuses on the adult population of working age. It collects data on adult education, competence development over the later course of life, and returns to early and adult education. The stage takes into account the process of lifelong learning and the fluidity of education even after leaving the formal educational systems.

The NEPS Consortium argues that the orientation toward the pillars and the stages structures the study in a way which permits coherent and consistent measurement of competence development, learning environments, educational processes, educational inequality, effects of migration, and benefits of education over the life course. On a theoretical level the data collected from all starting cohorts are comparable. Furthermore, the survey instruments address aspects of specific educational stages.

1.3.c Study Design and Starting Cohorts

The NEPS Consortium states that it decided to start with multiple longitudinal studies simultaneously at different points of the educational career in order to collect data from different educational phases as soon as possible. The NEPS follows a multicohort sequence design based on six starting cohorts: early childhood cohort, kindergarten children, fifth graders, ninth graders, first-year college students, and adults. While the first and the last starting cohorts are individual, age-based samples, the others are defined by a specific point in the educational system. The first wave of the early childhood cohort started only in August 2012. The cohorts of kindergarten children, fifth graders, ninth graders, and first-year-students started in fall and winter 2010. Since the NEPS Consortium has been able to integrate another longitudinal study that surveyed adult education, the adult cohort already started in 2009. |⁷ The consortium plans to survey all participants of the NEPS regularly and keep track of them through the different stages of education.

To recruit the respective samples, different sampling methods were applied: Cluster samples have been drawn in kindergartens, schools, and institutions of higher education. Since there were no comparable common contexts to draw reasonable samples, the infant and the adult cohorts started with individual samples. According to the NEPS Consortium, panel attrition stayed compara-

|⁷ The large-scale study ALWA (*Arbeiten und Lernen im Wandel, Working and Learning in a Changing World*) conducted by the Institute for Employment Research (*Institut für Arbeitsmarkt und Berufsforschung, IAB*) of the German Federal Employment Agency in 2007/2008.

tively low in all panel studies. All samples are representative of the German Federal Republic.

Early Childhood Cohort

The Early-Childhood panel study is based on an individual sample which shall contain 3,000 participants. The first wave started in August 2012. Besides the children as target persons, mothers, educators, and childminders are surveyed as context persons. Survey modes applied are tests of early competencies and parent-child interaction, interviews at home, and questionnaires for persons outside the family.

Kindergarten Cohort

The kindergarten sample's first wave contained 3,006 participants from 279 kindergartens. The target persons are children two years before school enrolment. Parents, educators, and the heads of the kindergartens are included as context persons. The second wave of this panel study started in 2011 with only ten dropouts with regard to the first wave. During the first wave the children were tested in sciences, vocabulary, and grammar; the second wave focused on domain-general cognitive function, working memory, delay of gratification, and phonological awareness. In both waves interviews with parents were conducted. The educators were also interviewed in both waves. In the upcoming third wave the entire first grade will be sampled. An additional survey of first graders with special educational needs was planned to be introduced, too. But the pilot studies showed that children with special educational needs are increasingly assigned to special needs schools on the basis of diagnostic procedures applied not before elementary schools start but during the first years of elementary schooling. Consequently, the earliest coherent access to this population will be possible when this cohort enters its third year of elementary schooling. Therefore, this add-on study will be prepared in concurrence with the third wave of the elementary school sample.

Fifth Graders

The panel study on fifth graders started in 2010. It included 6,112 participants from 291 schools. The target persons are pupils; parents, teachers, and school principals are included as context persons. Two waves have been completed. The NEPS Consortium reports only 14 dropouts amongst the target persons. In the second wave, several participants had to be traced individually because they had left the sampled grades or schools, or their schools had closed or left the NEPS.

Due to the large variety of school types in Germany seven explicit strata have been defined for the sampling schools: *Gymnasien*, *Hauptschulen*, *Realschulen*, *Ge-*

samtschulen, schools offering all tracks of secondary education except academic track, schools offering schooling to children with learning disabilities, and schools providing schooling to fifth grades pupils but not to ninth grade pupils. These strata are also applied for the starting cohort of the ninth graders.

All school surveys (i. e. starting waves of both fifth and ninth graders) have been conducted as group testing. There were also questionnaires for teachers, school principals and interviews with the parents. The school studies are monitored by the 16 Ministries of Education of the *Länder*. Notably the handling of data-protection differs between the *Länder*. This sometimes causes an adjustment of survey instruments which is not science-driven. Moreover, the NEPS Consortium had to agree that the participation in the studies is voluntary. This is perceived as disadvantage with regard to other obligatory studies. Another precondition of surveying pupils is that no comparisons between the *Länder* respectively their pupils shall be possible with NEPS data.

Ninth Graders

The panel study on the ninth graders started in 2010. 16,425 participants from 648 schools took part in the first wave of the study. Until now, three waves of this panel study are completed. Panel attrition stayed low since only 35 pupils left the study. As in the starting cohort of fifth graders the pupils are the target persons of the survey, while the parents, teachers, and principals are considered as context persons. The testing is very similar to that of fifth graders. Nevertheless, the NEPS argues that this starting cohort is special because the sample has split up: one group of pupils has entered vocational training after the ninth grade; others have continued education in a school context.

First-Year Students

The first-year students panel study started in 2010 and focuses on college students as target persons. At the first wave, 18,226 students participated in the survey. Two waves have already been carried out. Different modes of survey are employed such as computer-assisted telephone interviews, on-site paper-and-pencil testing, and online surveys.

Adults

The adult cohort was drawn as an individual sample and started in 2009 with 11,653 participants in the first wave. The target persons were born between 1944 and 1986. In this sample several sub-samples are combined: the sample from another longitudinal study which could be included in the NEPS, a refreshed sample (of target persons of the same age as the integrated longitudinal study), and an additional sample (of older participants). The first wave emphasised the collection of retrospective life-course data. Two further waves focused

on competencies, learning environments, perceived costs and benefits of further education, social and cultural capital, satisfaction, and interests. The SUF from the first waves of this panel was the first one to be released by the NEPS Consortium in December 2011.

Federal State Specific School Reform Studies

In the cohort of ninth graders there are two additional studies. The so-called G8/G9 reform study in Baden-Württemberg is collecting data on the effects of the reduction from nine (G9) to eight (G8) years of education in *Gymnasium*. For this purpose a cross-sectional study has been set up to survey graduating classes and to provide data which allow comparing pupils' performance and motivation before and after the reform.

Another school reform study is investigating the effect of reforms of the curriculum in Thuringia. The survey includes pupils of the last graduation year which is not affected by the reform and of the first reformed graduation year.

1.4 Distinction between the NEPS and other Panel Studies and Comparable Institutions and its Relevance to the Scientific Community

In the view of the NEPS Consortium, the NEPS differs from other studies which focus on education in Germany in one crucial point: the NEPS provides longitudinal data concerning educational processes and competence development during the whole life course. Cross-sectional international surveys like the Programme for International Student Assessment (PISA) give a detailed picture of the situation at one specific point whereas the NEPS follows its target persons through different educational stages and is able to measure development. Besides the longitudinal view the interdisciplinary approach is reported to be a distinction with regard to other studies.

In Germany there is no other longitudinal study on educational processes and competence development. With regard to the international context, there are several institutions which run longitudinal studies in the field of education in their respective countries such as the American National Center for Education Statistics at the Institute of Education Sciences, Washington D.C., the British Centre for Longitudinal Studies at the London School of Economics, or the UK Longitudinal Studies Centre at the University of Essex.

According to the NEPS Consortium, the theoretical framework of the NEPS in combination with stage-specific data collection is a singular characteristic of the study. Within this concept unique features of the NEPS are especially the measuring of competencies and skill acquisition over the entire life course and the research on returns on education in a multi-dimensional framework. Furthermore, the consortium refers to several methodological innovations such as the

surveying strategies and instruments for testing pupils with learning disabilities.

Nevertheless, the NEPS Consortium stresses that there are large thematic overlaps between other institutions and researchers in the field of educational research due to the fact that the aim of the NEPS is to provide data for their research. In terms of instruments and test methods the NEPS is also related to other large-scale studies. The Socio-Economic Panel Study (SOEP), located at the German Institute for Economic Research (*Deutsches Institut für Wirtschaftsforschung e.V.*, DIW), Berlin, is regarded as particularly influential as another large-scale panel study. The NEPS is also related to cross-national surveys in the field of education such as PISA, the Trends in Mathematics and Science Study (TIMSS), the Progress in Reading Literacy Study (PIRLS), or the Programme for the International Assessment of Adult Competencies (PIAAC).

The NEPS Consortium believes that an analysis of NEPS data allow new insights into the process of competence acquisition and skill formation and the returns on education. Since the NEPS employs an interdisciplinary approach, the data are valuable for researchers from various disciplines which focus on the German education system such as educational sciences, educational psychology, developmental psychology, educational sociology, educational economics, labour market and employment research, poverty research, children and youth studies, family research, gender studies, migration studies, population studies, cultural studies, survey research, and diagnostics and test theory. The NEPS Consortium believes that the unique data set of the NEPS shall enable researchers to answer some focal questions concerning educational processes in Germany including questions about

- _ the experiences of participants in different learning environments and the determinants for the acquisition of competencies and educational decisions;
- _ the relation between competence acquisition and social and economic conditions;
- _ the relevance of “metacompetencies” such as learning strategies, self-regulation, and motivational factors for a successful career in the educational system and on the labour market;
- _ the reasons for ethnic inequalities in education;
- _ the relative weight of different competencies with respect to success in vocational training, higher education, and on the labour market;
- _ the relation between acquired knowledge, trained skills, and competencies on the one hand and educational certificates on the other hand;
- _ the economic, social, and health-related returns on education;

_ adult education and lifelong-learning.

In its own view, the NEPS Consortium is perceived as a network of leading scientists in educational research. During the last three years (2009-2011) 21 members of the NEPS Consortium were appointed to serve on 78 scientific committees and advisory bodies. 11 members of the consortium have received 15 research awards such as the Communicator Award (which recognizes scientists who have communicated their research results to the public with exceptional success), the Advanced Grant of the European Research Council, or the CORECHED Prize in Educational Research.

A.II MAIN AREAS OF WORK

The core functions of the NEPS Consortium are collection, editing, and dissemination of data on educational processes and competence development. According to the NEPS Consortium all of these services base on research. The research and the provision of services are closely linked.

The NEPS Consortium indicates that all researchers in the different NEPS departments spend their working time on both research and provision of services. The members of Department A – Central Project Management and Coordination are mainly occupied with service work whereas only a small percentage of the working time is spent on research. In Department B – Instrument Development the amount of research ranges from 30 to 25 % while the amount of service ranges from 70 to 75 % of the working time. Depending on the sub-departments the scientific staff of Department C – Methods and Data spend 15 respectively 40 % of their working time on research and 85 respectively 60 % on the provision of service.

II.1 Research and Development

It is not accepted that the members of the NEPS staff carry out research on content-related questions based on NEPS data before the data are available to the scientific community. The NEPS Consortium argues that, however, the collection and provision of data require research in terms of item and instrument development, data editing, or survey methodological questions. The development of the conceptual framework of the NEPS was also research-driven.

Besides their work within the NEPS Consortium, several members are running independent research projects on questions with relevance to the NEPS. However, these projects are not financed within the funding of the NEPS.

The research programme of the NEPS Consortium is based on the application submitted to the BMBF in order to obtain funds to set up the study. Therefore, the research and service agenda of the NEPS Consortium as well as the working schedule are fixed. Nevertheless, the NEPS Consortium is convinced that the project is able to react flexibly to new scientific and political developments concerning the field of education and to integrate relevant scientific findings by shaping the instruments and the panel studies accordingly.

Department A – Central Project Management and Coordination

The main focus of Department A is on the provision of external and internal services. However, the Central Coordination is involved in research-based decisions concerning the survey management and survey methodology. The department is involved in questions concerning sampling strategies, the effects of processes in the field (such as the effects of different types of interviewer training), the impact of different factors on survey response rates, and the tracking of target persons.

Department B – Instrument Development

Department B, which consists of the NEPS pillars and stages, is mainly occupied with the research-based selection, adoption and especially development of all items and instruments used in the NEPS studies. According to the NEPS Consortium this requires a framework which allows the coherent evaluation of questions addressing the theoretical focuses of the pillars across the six starting cohorts on the one hand and meets stage-specific needs on the other hand. Within this framework existing items and scales are selected and new ones are developed. For example, a consistent concept for measuring competencies over the life course and tests on stage-specific competencies have been developed. Linking studies are used to develop competence tests that enable comparison over the life course.

Own research is required especially with regard to unexplored fields such as assessing the parent-child interaction, measuring preschool education, testing pupils with special educational needs in the context of a nationwide study, or collecting life course data in a panel design. Furthermore, the department also focuses on methodological aspects such as the validity of selected instruments and their optimization, questionnaire design, or panel stability. The department is also responsible for controlling the collected data, data documentation and data editing.

Department C is primarily concerned with data management and statistics. The department consists of the NEPS Data Center and the Methods Group. The data center is conducting research on scientific data management and has developed solutions in data management (e. g. concerning large-scale data editing, the design of longitudinal data structures, and the management of multiple-linked metadata) and distribution of data.

The research of the Methods Group focuses on statistical methods, especially weighting and imputation. The group develops modelling approaches to deal with panel non-response respectively panel attrition. With regard to missing values it conducts research on the implementation of non-parametric imputation approaches, split questionnaire survey design, Item Response Theory models, and parametric estimation procedures with a focus on modelling survival rates within longitudinal analysis. The group was also occupied with the development, evaluation, and implementation of sampling designs of the six starting cohort samples.

II.1.b Publications, Scientific Events, and Communication of Results to the General Public

Publications

Within the last three years (2009-2011) the NEPS Consortium has published 51 print publications with relevance to the NEPS. Of these, 21 articles were contributions to edited volumes published by the NEPS Consortium itself. Furthermore, 9 articles in peer-reviewed journals, 11 articles without peer-review, 9 contributions to edited volumes published by third parties, and a book were published. Since the NEPS Consortium is not allowed to conduct content-related research with unpublished NEPS data, the publications focus mainly on describing the study, the survey instruments, or aspects of instrument development. The NEPS Consortium has set up the NEPS Working Paper series. In these working papers methodological aspects and research findings are discussed. The papers are available for download.

Moreover, the NEPS Consortium publishes an email-newsletter addressing the scientific community (NEPSdata). The newsletter contains information about data releases, user trainings, and upcoming events.

Scientific Events and Presentations

Members of the NEPS Consortium attend scientific events regularly. Within the last three years (2009-2011) there have been 231 oral and poster presentations at

national and international conferences. Members of the NEPS Consortium have been invited to contribute to 146 international conferences.

The NEPS Consortium itself has organized 84 scientific events during the last three years. Of particular importance were the scientific conference on the “Research Potential of the National Educational Panel Study” in February 2009, the workshop on “Early Childhood Educational Measures” in January 2012, and the meeting of the DFG Priority Programme “Education as a Lifelong Process” in May 2012.

Communication of Results to the General Public

The NEPS Consortium indicates that regular communication of results and progresses of the study to the general public is important. Since schools, universities, and kindergartens have to be convinced to participate in the NEPS, public relations are regarded as essential. The NEPS Consortium claims that the press and media are rather interested in the NEPS and ask for results and expertise regularly. To inform the political-administrative level about the status of the NEPS, latest developments, and events, the NEPS Consortium publishes a quarterly newsletter (NEPSinfo). Furthermore, the NEPS Consortium organizes meetings for ministries, political parties, and interested institutions to provide information about the study. There are also special brochures which address the participants of the NEPS to inform them about the study and the sub-studies. The project’s website provides general information about the study.

The NEPS Consortium has close contacts with institutions engaged in education such as the Ministries of Education of the *Länder*, teachers’ and parents’ organisations, or the German Rectors’ Conference (*Hochschulrektorenkonferenz*). Other institutions interested in the work of the NEPS Consortium are for example political parties or organisations concerned with educational issues like the German Chambers of Commerce and Industry (*Deutsche Industrie- und Handelskammern*).

II.1.c Third-Party Funds

The NEPS Consortium indicates that obtaining third-party funds is quite restricted because the NEPS itself is a project funded by the BMBF. With approval by the BMBF, the NEPS Consortium was allowed to obtain additional funds (1,4 million Euro) by the Federal Employment Agency (*Bundesagentur für Arbeit*). These funds are deployed to enlarge the sample of ninth graders in order to survey pupils from lower school tracks and their way from school to vocational training and the labour market.

The NEPS Consortium has a broad range of formal and informal collaborations both at the national and the international level. It collaborates with 110 research institutes, panel studies, and researchers for the purposes of joint research projects, instrument development, survey management, and data dissemination. 85 of the collaborating institutions or individual researchers are from Germany.

The modes of collaboration encompasses informal contacts, reciprocal consultations, exchange of survey instruments and tests, joint development of survey instruments and tests, and contractual fixed specified tasks. Of particular importance for the NEPS are collaborations with other panel studies such as the Millennium Cohort study (Great Britain) or the Czech Longitudinal Study in Education, and institutions which focus on longitudinal research such as the Society for Longitudinal and Life Course Study (Great Britain) or the European Child Cohort Network of the European Science Foundation. With regard to technical issues there exists a close collaboration with Statistic Sweden which advises the establishment of a remote technology for data access. There is also a close cooperation with the Leibniz Institute for the Social Sciences (GESIS) with regard to the development of short scales and the impact of incentives.

During the last three years (2009-2011) 93 visiting scientists stayed at the NEPS in Bamberg. 34 of them were German, 43 came from Europe, and 16 came from non-European countries. The length of their visits differs between a day and several months. During the same period 20 members of the NEPS consortium stayed as visiting scientists at other institutions in Germany and abroad.

II.1.e Academic Teaching and Support of Early Career Researchers

Among the members of the NEPS Consortium there are 39 professors who teach eight or nine hours per week at their respective university. However, the professorships are not funded by the BMBF. BMBF-funded staff are not allowed to teach during their working hours. Nevertheless, as most of the scientific staff are employed part-time, 55 of them are involved in academic teaching, mostly by giving one seminar per semester.

The NEPS Consortium does not promote dissertation or habilitation projects of young scientists directly since there are no funds available for this purpose. The preparation of a dissertation or a *Habilitation* is not part of the labour contracts of scientific staff. Due to part-time-contracts there are, however, members of the NEPS staff who have completed (19) or are preparing (68) a dissertation respectively preparing a *Habilitation* (18). The NEPS Consortium supports its Ph.D. students by joint workshops, summer schools, and lectures of visiting scientists

with opportunity to discuss own research questions. On the average, the NEPS Consortium hosts 12 student interns each year.

II.1.f Quality Control

The research and the service work of the NEPS Consortium is under the oversight of two advisory boards: the scientific board and the administrative board of the NEPS. The scientific board meets yearly to discuss and evaluate the work of the NEPS Consortium and give scientific advice concerning the further development of the project. The members of the board are scientists from Germany and abroad. Besides the researchers there are three representatives with permanent guest status from the DFG, the BMBF, and the KMK.

The administrative board consists of representatives of several Federal Ministries and Ministries of the *Länder*, the Confederation of German Trade Unions, the Confederation of German Employers' Association, the German Rural District Association, and the Representative of German Municipalities. It played a key role in setting up the study because it supported the sampling of the NEPS starting cohorts by bringing the NEPS Consortium into contact with relevant institutions. So far the administrative board has met once.

Since the NEPS is located in the INBIL at the University of Bamberg, the INBIL board of trustees is also concerned with the panel study. The board of trustees is charged with giving advice to the NEPS Consortium concerning strategic orientation and strategies to improve the visibility of the NEPS within the scientific community.

According to the NEPS Consortium, the state of the art of its work with respect to theories and methods is also ensured by the inclusion of leading experts in educational research, national and international collaborations, close dialogue with other researchers, and the cooperation with two data-collection institutes. The NEPS Consortium has established several internal mechanisms to ensure the quality of its work. With respect to the process of instrument development there are three kinds of internal coordination meetings: During the so-called final coordination meetings every survey instrument is discussed prior to its implementation in a pilot-study. The so-called result meeting is held after a pilot-study has been conducted in order to assess the used items and instruments in preparation for the main study. Finally, all instruments have to be approved by the final approval committee prior to their implementation in a main study.

In terms of monetary incentives, the payment of bonuses based on prior performance is possible. Further incentives are the support of human resource development or the release of scientists from certain service tasks.

The users are involved in quality control by giving feedback on user training (questionnaires) and data usability (via the support hotlines). It is planned to conduct a user survey and to host a user conference next year.

During the current funding period the NEPS has not been evaluated by an external institution yet. However, the research proposal which had been submitted prior to setting up the NEPS was evaluated and approved by two expert commissions of the DFG.

II.2 Provision of Services

Most of the working time of the scientific NEPS staff is spent on the provision of services. According to the NEPS Consortium, all of these services require own research and development.

II.2.a Data Collection

The process of data collection is conducted by two data collection institutes, the IEA DPC and the infas. The NEPS Consortium stresses that the fieldwork is closely monitored by NEPS staff. Department A – Central Coordination coordinates the collaboration between the NEPS staff and the data collection institutes and is in charge of questions relating to data protection. Department B – Instrument Development and the Department C – Methods and Data are engaged in monitoring the fieldwork. The NEPS Consortium claims that the study benefits of the expertise of the data collection institutes. The demands of data protection and confidentiality are regarded as crucial points of the fieldwork.

II.2.b Data Preparation

The preparation of raw data is a core function of the scientific staff of the NEPS. Before being published the data sets must be made anonymous. Further steps of processing are: data cleaning, editing, coding, variable generation, data enrichment, and data linkage. Before the official release of SUFs the NEPS staff tests the data quality and usability.

The work of data preparation is conducted by Department B – Instrument Development and Department C – Methods and Data. The NEPS staff is especially concerned with occupational coding (according to the classification structures International Standard Classification of Occupations, ISCO, and *Klassifizierung der Berufe*, KldB), but also with coding branches, locations, and contents of further education. To improve usability of data sets the NEPS staff generates additional research-based variables (e. g. measuring socioeconomic status). Furthermore the SUFs are enriched with metadata and three types of weighting: design weighting, non-response adjusted weighting, and post-stratification weighting. The NEPS staff is also engaged in the imputation of missing values. Moreover,

the NEPS Consortium provides a data linkage service. It aims at supplying regional and macro-level data which can be combined with NEPS data.

II.2.c Data Dissemination

Corresponding to the six NEPS starting cohorts the NEPS Data Center releases six lines of SUFs. With each panel wave the respective SUF will be enriched with new data. The NEPS Consortium emphasises that it aims at publishing the SUFs no later than 18 months after the end of the field work. To facilitate scientific use older versions of data are archived. Each data version has got a unique digital object identifier which allows coherent quotation of the data. SUFs for the starting cohort 6 (i. e. Adults) have already been published. SUFs of the first waves of the starting cohorts 2 (Kindergarten), 3 (Fifth Graders), 4 (Ninth Graders), as well as of the first wave of the Thuringia-Study were released in October/November 2012. Department B – Instrument Development and Department C – Methods and Data are involved in the process of data dissemination.

Access

The data access infrastructure of the NEPS Consortium allows data distribution by download, via remote-access (RemoteNEPS), and during on-site access. The SUFs are available for download after signing a data use agreement. Researchers also have to sketch their scientific project to gain access to NEPS data. With regard to more sensitive data that require higher levels of data protection, interested researchers may use the RemoteNEPS remote access service or, for highly sensitive data, dedicated work space within the NEPS premises at Bamberg. RemoteNEPS provides an online research environment equipped with statistical software. To ensure a secure remote session a biometrical authentication and an encrypted connection have been employed.

With regard to data documentation, the NEPS Consortium has built up an online documentation of the studies, a metadata online database (NEPSplorer), and is publishing a series of research data papers (NEPS Research Data Papers). “NEPSplorer” provides an interactive access to metadata of the NEPS studies and datasets. Users are provided access to NEPS studies, questionnaires, items, and variables. The NEPS Data Research Papers include data manuals, fieldwork reports, reports on the construction of weights, imputations, and the scaling of competence data.

To date, 181 researchers (conducting 91 projects) have signed a user contract to use NEPS survey data. 51 % of the users are research assistants (including Ph.D. students), 19 % are professors, 16 % are students (who are allowed to work with NEPS data under supervision of a researcher), and 14 % belong to a heterogeneous group of heads of research departments, directors of institutes etc. 10 % of the users come from abroad.

The online study documentation has 320 registered users. 3,600 download requests have been made in order to obtain questionnaires and coding.

User Support

The NEPS Data Center offers different kinds of user support. User training courses are held in Bamberg. Within a one-day or a two-day course theoretical, methodological, and technical questions of analysis of NEPS data are addressed and the ways of data access are explained. Researchers who wish to work with RemoteNEPS have to attend user training. To date, 12 courses have been completed with about 15 participants in each course. Furthermore, there was one special data workshop for researchers supported by the DFG Priority Programme “Education as a lifelong process”. Further workshops are planned. Finally, user support is provided via an email hotline and a phone hotline.

II.2.d Other Services

The core functions of the NEPS Consortium are services to the scientific community. With regard to the BMBF as funding provider the consortium stresses that it is embedded in the BMBF Framework Programme for the Promotion of Empirical Research and participate in meetings of the coordinating departments. It is also committed to the BMBF programme “Research in Germany”. Within this programme the NEPS Consortium presents – together with other German panel studies – German longitudinal databases to an international audience. This service work is mainly conducted by Department A – Central Project Management and Coordination, and Department B – Instrument Development. To a minor extent the NEPS Consortium is also involved in providing information and advice to policymakers and public institutions.

A.III ORGANISATION AND RESOURCES

III.1 Organisation

The NEPS is an infrastructure facility and therefore not directly comparable to a regular research institute. As a project it is embedded in the INBIL at the University of Bamberg. To conduct the panel study a consortium of research institutes, groups of researchers, and individual researchers was set up.

III.1.a Structure of the NEPS Consortium and the NEPS

The NEPS Consortium consists of 11 permanent professorships situated at the University of Bamberg. To set up the study the University of Bamberg was also provided with three temporary professorships by the Bavarian Ministry of Education and Cultural Affairs. Moreover, 19 so-called *Konsortialpartner* are members

of the NEPS Consortium. Their status as *Konsortialpartner* implies that they are contractually bound to the NEPS and receive funds from the BMBF. The *Konsortialpartner* of the NEPS are:

- _ Center for European Economic Research (*Zentrum für Europäische Wirtschaftsforschung*, ZEW), Mannheim;
- _ Freie Universität Berlin;
- _ Friedrich-Alexander Universität Erlangen-Nürnberg;
- _ German Institute for International Educational Research (*Deutsches Institut für Internationale Pädagogische Forschung*, DIPF), Frankfurt;
- _ Gottfried Wilhelm Leibniz Universität Hannover;
- _ Higher Education Information System (*Hochschul-Informationssystem*, HIS), Hannover;
- _ ifo Institute – Leibniz Institute for Economic Research at the University of Munich (*Institut für Wirtschaftsforschung*);
- _ Institute for Employment Research (*Institut für Arbeitsmarkt- und Berufsforschung*, IAB), Nürnberg;
- _ Institute for School Development Research (*Institut für Schulentwicklungsforschung*, IFS) at TU Dortmund;
- _ Justus Liebig Universität Gießen;
- _ Leibniz Institute for Science and Mathematics Education (*Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik*, IPN), Kiel;
- _ Ludwig-Maximilians-Universität München;
- _ Social Science Research Center Berlin (*Wissenschaftszentrum Berlin für Sozialforschung*, WZB);
- _ Universität Hamburg;
- _ Universität Leipzig;
- _ Universität Mannheim;
- _ Universität Potsdam;
- _ Universität Siegen;
- _ Universität Tübingen.

According to the NEPS Consortium this multilocal network structure was formed to involve the most important research institutes and researchers in the field of educational research.

The NEPS consists of three departments. Each of the departments consists of so-called work packages (altogether 14) and sub-work packages (altogether 34) led by researchers of the University of Bamberg or the *Konsortialpartner*. Department A – Central Project Management and Coordination (Work Package 0) is located at Bamberg and responsible for the project and survey management, questions of data protection, public relations, and quality control. The NEPS network is coordinated by Department A. The head of the department is the principal investigator of the study.

Department B – Instruments Development (Work Packages 1-11) is formed by the pillars and stages of the NEPS. Its main task is the development of all items, scales, and instruments used in the study. 20 of the 28 sub-work packages which build Department B are led by researchers who belong to other institutions than the University of Bamberg.

Department C – Methods and Data (Work Packages 12-14) is occupied with aspects of sampling, weighing, and imputation as well as the data dissemination. Two of the five sub-work packages of Department C are led by external researchers.

Due to the multilocal structure of the NEPS Consortium there are several procedures, working groups, and internal meetings to coordinate the work. Furthermore, in Bamberg there are liaison officers who work for an external member of the consortium. They ensure a constant communication between the internal and external members of the consortium. The NEPS Consortium also claims that clearly structured working processes have been developed in order to cope with the challenges of the network structure. Fixed working routines are documented in manuals for the scientific staff. According to the NEPS Consortium, internal cooperation is also ensured by an information supporting system (including an internal Wiki-solution, a common digital working platform). There are also workshops, colloquia, and lectures organized by the NEPS Consortium which are open to all members of the NEPS staff. The consortium believes that after the initial work of establishing an effective mode of cooperation between more than 200 colleagues belonging to more than 20 institutions the collaboration within the NEPS Consortium is very productive and a major strength of the NEPS because of synergy effects and transfer of knowledge.

III.1.b Cooperation and Coordination with the Funding Body

With regard to the funding body of the panel study the NEPS Consortium stresses that there are no difficulties of cooperation and coordination. According to the NEPS Consortium, the BMBF is very supportive and open to scientific needs. Currently the BMBF supports – together with the Bavarian State Ministry of Sciences, Research, and the Arts – the process of planning the establishment of a Leibniz institute.

On behalf of the BMBF the Project Management Agency is monitoring the NEPS. The NEPS Consortium has to submit quarterly reports on the progress of the project and the allocation of resources. The NEPS Consortium claims that the PT-DLR is very supportive given the special duty of large projects to report quarterly.

III.1.c Management Level

The management level of the NEPS consists of the managing director and principal investigator (PI), the vice managing director, the executive director of research, and the executive director of administration. Each work package is led by one or several heads at professorial rank. There are also so-called operational managers who are responsible for the daily work. 58 % of the 36 members of the management level are male.

The position of the PI was not advertised. The BMBF asked the first PI to set up the NEPS. The NEPS Consortium and the University of Bamberg decided on the appointment of the successor. In August 2012, the position was handed over to a member of the NEPS Consortium because of his experience and involvement in the project. The BMBF as funding body approved the decision. The heads of the work packages are co-applicants for the NEPS. Therefore their positions were not advertised either. The appointment procedures for the three professorships funded by the Bavarian Ministry of Education and Cultural Affairs follow the regular appointment procedures of the University of Bamberg. The executive director of research and the executive director of administration were chosen by the PI in a regular job interview.

Decisions concerning the entire study are made by the so-called final approval committee and the steering committee. The final approval committee meets to prepare every main study. Members of this committee are notably the managing director, the executive director of research, and the heads of the different work packages. The majority of decisions with relevance for the work of the NEPS are made by the final approval committee. However, if this committee is unable to solve a problem the steering committee is called. This committee discusses and decides questions concerning the design of the study, the development of instruments, and strategic issues. Seven heads of different work packages are members of this committee. Not all work packages are represented in order to keep this committee small and flexible.

III.2 Resources

III.2.a Staff

Altogether, 211 persons are working within the NEPS Consortium. Of them, 132 are funded by the BMBF. 39 professors are involved in the NEPS but not funded

by the BMBF. As of June 30, 2012 the NEPS Consortium employed 121 academic staff and 11 non-academic support staff. 69 of the academic staff were employed at the University of Bamberg, 52 were working for external members of the consortium. The majority of the scientific staff worked part-time.

As the NEPS is a project funded for a period of five years, all of the contracts were fixed-term. Of the 121 academic staff, approx. 56 % were female; 52 % were between 30 and 40 years of age, 31 % were less than 30 years old, and 17 % were 40 years and older. 60 % of the academic staff hold a diploma, *Staats-examen*, or *Magister*; 26 % have received a doctoral degree.

The NEPS Consortium claims that it has encountered problems in hiring qualified staff due to the restriction that NEPS staff is not allowed to conduct content-related research during their working hours and due to the fixed-term contracts in combination with insecurity concerning the further development of the NEPS. Therefore, not all available positions can actually be staffed. Of 82.25 full-time equivalent positions 78.75 are staffed.

The NEPS Consortium tries to deal with this problem by strengthening the relations to the Bamberg Graduate School of Social Sciences in order to hire scientific staff. Moreover, the NEPS Consortium is engaged in a Master of Science programme “Empirical Educational Research” at the University of Bamberg. However, these measures do not help hiring highly experienced staff. The NEPS consortium believes that notably the introduction of content-related research and long-term contracts would solve the problems.

III.2.b Budget

The NEPS is funded by the BMBF for a period of five years (2009-2013). It is also supported by the Federal State of Bavaria which indirectly covers the costs of the basic equipment, facilities, and administration at the University of Bamberg. Moreover, three temporary professorships at the University of Bamberg are funded by the Bavarian Ministry of Education and Cultural Affairs and 12 postdoc positions are financed by the *Konsortialpartner* themselves.

The BMBF provides a grant of approx. 80 million Euro; additionally approx. 5 million Euro were provided as project overhead in favour of the University of Bamberg. The bulk of the funding covers the costs of the data collection institutes (approx. 46 million Euro) and the personnel costs (approx. 14 million Euro). In 2011, the NEPS Consortium spent approx. 5 million Euro on staff costs and approx. 9 million Euro on the fieldwork.

Budgeting is conducted according to the guidelines of the BMBF and the University of Bamberg. The flexibility in budgetary matters is restricted. The NEPS Consortium is allowed to reallocate funds within a range of 20 % of the original budget. Any other reallocation has to be approved by the BMBF in advance. In

the past, the BMBF approved reallocation of staff costs and the adjustment of data collection costs according to increased requirements.

The NEPS also benefits from the DFG Priority Programme 1646 “Education as a Lifelong Process” which promotes research with NEPS data. 11 of the 18 projects of the Priority Programme are projects of the members of the NEPS Consortium. The programme is also coordinated by members of the consortium.

III.2.c Premises and Facilities

In Bamberg, the NEPS Consortium has 36 offices and 32 functional rooms at its disposal. The functional rooms include e. g. conference rooms, rooms for technical facilities, and an archive. The equipment with computers, software etc. is perceived as adequate. With regard to the IT infrastructure there are several IT systems employed at the NEPS. In order to safeguard the data all major components are set up in redundant configurations.

A.IV THE FUTURE DEVELOPMENT OF THE NEPS

The NEPS Consortium believes that the data of the NEPS will be in high demand in the research and policy advisory community. The consortium plans a number of methodological innovations and structural changes to enhance the panel study. It intends to further strengthen its strategies of panel care (such as incentives) to follow up the target persons over longer periods and optimise the fieldwork. In order to document and analyse historical changes concerning educational processes the consortium plans to sample new cohorts following the six NEPS starting cohorts (cohort succession). Tests concerning the use of new modes of data collection are also currently ongoing. In this context, the NEPS Consortium tests the employment of computer-based competence tests within the study. In terms of instrument development, several innovations shall be further developed and new ones shall be introduced such as measuring job-related competencies in stages 6, 7, and 8, or a measuring tool to assess cultural knowledge. The NEPS Consortium also intends to promote the use of its data by offering user trainings abroad (at the Universities of Barcelona, Bern, Florence, Lausanne, Oxford, Paris, Prague, Stockholm, Warsaw, and Wisconsin), preparing NEPS data in both German and English, and releasing campus versions of the SUFs which shall include small and strictly anonymised sub-samples of NEPS data for educational purposes. Furthermore, there are plans to offer special publications and workshops for interested parties other than researchers such as teachers or journalists.

The NEPS Consortium aims at becoming a member of the Leibniz-Association. This requires the foundation of an independent institute. With regard to the

organisational structure of the prospective institute, the consortium plans to maintain the multilocal network structure with a management department located in Bamberg. From the point of view of the NEPS Consortium, this structure ensures that the leading experts in educational research will contribute to the NEPS. The prospective institute – “Leibniz Institute for Educational Trajectories” (*Leibniz-Institut für Bildungsverläufe e.V.*, LIfBi) – shall consist of three departments with an additional new department responsible for coordinating research and obtaining third-party funds. The institute will collaborate closely with the University of Bamberg since the director of the LIfBi shall be nominated by joint professorial appointment with the university.

After joining the Leibniz Association the NEPS Consortium will continue the data collection and conduction of the NEPS. Additionally, it will carry out research on content-related questions and data analysis beyond the research-based development of instruments. The NEPS Consortium is convinced that its members are especially qualified for research based upon NEPS data. Their research will also stimulate the instrument development within the NEPS. Research within the newly founded Leibniz institute will be coordinated by a new department which will also support applications for third-party funding. As the NEPS Consortium expects cutbacks in institutional funding after joining the Leibniz Association, it will actively engage in seeking additional external funding.

The NEPS Consortium argues that there are several reasons to conduct its work in the context of a non-university institution: The results of the NEPS relate to the interests of the *Länder* and the German Federal Government. However, joint funding of the NEPS by the Federal Government and the *Länder* will only be possible in the context of a non-university structure like the Leibniz Association.

The NEPS Consortium claims that establishing a Leibniz institute will ensure the permanence of the study as the NEPS will be securely funded under the umbrella of the Leibniz Association.

With regard to the Leibniz Association itself, interdisciplinary educational research as well as research-based infrastructure projects are, according to the NEPS Consortium, of high interest to the association. As an exceptional data collection project, the NEPS will contribute to two sections of the association: Section A – Humanities and History of Education and Section B - Economics, Social Sciences, Regional Infrastructure Research. The NEPS Consortium is already engaged in the newly founded Leibniz Research Association “Educational Potentials”. Moreover, the consortium is collaborating closely with several Leibniz institutes. According to the NEPS Consortium, the Leibniz Association will also benefit from a membership of the consortium because the prospective LIfBi will be the first Leibniz institute with an interdisciplinary service function and an interdisciplinary research framework in the field of educational research.

Moreover, it will introduce the network structure as a new organisational model and it will help to establish close relations to universities as several universities will be involved in the institute.

The NEPS Consortium believes that its work is both of nationwide importance and of interest in terms of the state's science policy. In the NEPS Consortium's view there are four main reasons:

- _ The NEPS Consortium already does and will further strengthen empirical educational research in Germany by providing a unique dataset on educational processes and competence development and by conducting own research on content-related questions.
- _ The NEPS Consortium strengthens the role of German educational research in an international context. It collaborates with many international partners. The NEPS has already served as a model that other initiatives follow in order to set up similar panel studies in other European and non-European countries.
- _ The longer the study is being conducted the more valuable information can be provided to contribute to policy consulting concerning educational questions. The NEPS Consortium intends to contribute to the National Report on Education (*Nationaler Bildungsbericht*). In the midterm, the NEPS will also provide data about the effects of political reforms with regard to the educational system.
- _ The NEPS Consortium promotes early career researchers. After joining the Leibniz Association it will be able to support them more directly as research on content-related questions will become a key task of the institute and funds will be available to promote young scientists.

B. Evaluation

B.1 SCIENTIFIC RELEVANCE

The NEPS has been set up as a large-scale infrastructure facility to collect and disseminate data which allow studying the acquisition of education and competence development in Germany. Although the longitudinal study only started in 2009, it already proved to be an outstanding and very promising project which allows new insights at the level of basic and applied research. NEPS data is of high interest to a multidisciplinary scientific user community in Germany, Europe, and beyond. Moreover, research with NEPS data will help to advise and support the Federal Government and the *Länder* governments in terms of evidence-based policy counselling in the area of education policy. The NEPS dataset contains information of high relevance to an informed political decision-making such as the impact of different learning environments on educational processes, the relation between competence acquisition and social and economic conditions, the reasons for ethnic inequalities in education, or the various outcomes of education.

The NEPS already holds a unique position in both the German and international research and infrastructure landscape. The study is characterised by a number of innovative components and unique features compared to other national and international surveys in the area of educational research. The singular conceptual framework of the study encompasses eight educational stages covering the whole life-course. The longitudinal integration of these stages is ensured by the theoretical orientation toward five major interlinked dimensions (“pillars”). This conceptual matrix allows the generation of a complex and very rich dataset. The NEPS Consortium has convincingly demonstrated that it is capable of handling this broad scope and of producing a dataset of very high quality. It has already become apparent that NEPS data allows addressing new research topics of various disciplines which focus on educational questions. Furthermore, the two-dimensional matrix of pillars and stages, which builds the framework of the NEPS, stands out due to its consistent interdisciplinary perspective.

In terms of study design, the NEPS follows a multicohort sequence design based on six starting cohorts. The main condition for the success of this longitudinal study within only a few years after it was set up is the decision to launch the first waves of its starting cohorts almost simultaneously. Thus, data from different educational phases are and will be available at about the same time. This allows not only access to data of different points in the educational career but also – thanks to a well-considered study design – intercohort comparability, i. e. that, on a theoretical level, the data collected from all starting cohorts are comparable.

Starting from this highly positive assessment of the NEPS Consortium's past performance, the current evaluation also focuses on considerations concerning the future development of the NEPS study and the NEPS Consortium. In order to make full use of the longitudinal nature of the NEPS, it is essential to survey the same target persons at regular intervals over extended periods of time. Furthermore, to document and analyse historical changes concerning educational processes it is vital to sample new cohorts following the six NEPS starting cohorts. Therefore, a permanent stabilisation of the survey is the indispensable prerequisite of its long-term, sustainable worth and utility to science and politics. To ensure the permanence of the survey and to create cohort succession there is a high need for a more far-reaching institutionalisation and permanent funding of the NEPS.

B.II KEY TASKS AND MAIN AREAS OF WORK

II.1 Research and Development

The core task of the NEPS Consortium is to conduct the NEPS study, i. e. to collect, edit, and disseminate data on educational processes and competence development from about 100,000 participants at the first measurement waves. These service-related tasks are based on profound scientific expertise. This is one of the preconditions for the service work to meet the high standards for the set up of the outstanding quality of NEPS data. The different NEPS departments collaborate closely in their respective fields of research. In general, the quality of the work is very high and has an international standing. The NEPS' conceptual framework is an example of the elaborated research-driven work of the consortium: This framework on the one hand allows a coherent evaluation of questions addressing the theoretical focuses of the pillars across the six starting cohorts and meets on the other hand stage-specific needs. Developing and implementing such a complex survey concept is an impressive achievement. The NEPS Consortium's research performance with regard to item and instrument development, data editing, data dissemination, and survey methodological questions is especially strong and in large parts excellent.

The NEPS pillars and stages (i. e. Department B) focus on the selection, adoption, and development of items and instruments used in the NEPS studies and on methodological questions. The staff has developed some impressive new solutions, e. g. for measuring competences in the early childhood cohort and assessing parent-child interactions.

The Methods Groups and NEPS Data Center (i. e. Department C) focus on data management and statistical methods, especially weighting and imputation. Research within this department, such as testing of new technologies or mode effect studies, is highly productive and clearly enhances the overall high reputation of NEPS.

II.1.a Work and Research Programme

Since the beginning, the research and service agenda of the NEPS Consortium has been based on the grant application submitted to the BMBF and is therefore fixed. Due to the current funding as an infrastructure facility, the members of the NEPS staff are not allowed to do research on content-related topics during their working hours. This restriction poses problems in hiring highly qualified staff and hampers the exploitation of the scientific staff's full potential. To overcome these constraints, it is highly desirable that content-related research will be facilitated in a prospective institute and that a fixed amount of the scientific staff's working time will be dedicated to own research with NEPS data. This would ensure a productive scientific exchange between data collection and research and is therefore an essential precondition for being able to stay on top of new developments.

Provided that NEPS staff will be allowed to conduct own research, it is crucial to the further development of the survey that the NEPS Consortium manages to strike a good balance between service and research. The consortium on the one hand has to fulfil key service tasks and maintain the high quality of the service work and on the other hand ensure that service will not become too dominant in relation to research. Due to a very likely rise in the number of users, service-related tasks will further increase. Therefore, establishing and maintaining an appropriate balance between service and research will become an even more pressing challenge. In order to deal with this challenge, the NEPS Consortium should continue in developing an appropriate and sustainable research programme for the prospective institute and involve its excellent scientific board in the whole planning process.

Plans to establish a new, separate department within a prospective institute responsible for coordinating research and policy counselling might seem helpful. However, such a solution might create a counterproductive separation between research and service. Instead, research should be facilitated within all NEPS de-

partments in order to stimulate mutual scientific exchange between service and research.

II.1.b Publications, Scientific Events, and Communication of Results to the General Public

Due to the NEPS Consortium's service tasks, the huge primary effort to set up the study, and the fact that NEPS researchers are not allowed to publish with NEPS data until a public use file is available, the number of publications with relevance to the NEPS by its staff is rather modest yet. However, the publication record will increase as more data will become available for research. Currently, many publications are in preparation and convincing plans are in place to increase the number of peer-reviewed publications in both national and international journals. The NEPS Consortium should develop a strategy to support the systematic dissemination of its research results. There are already excellent results, which could and should be published in internationally highly rated journals.

The NEPS Consortium is also strongly encouraged to continue its policy of publishing not only research results concerning content-related questions but also concerning methodological aspects, instrument development, aspects of data management, and other survey and infrastructure related questions which are of high interest to the scientific community as well.

Members of NEPS staff attend national and international scientific events very actively. This conference activities as well as the organisation of such events by the NEPS Consortium itself are very important because they increase the visibility and use of the NEPS and its data for the national and international scientific community. The NEPS Consortium's strategy of communicating its results is supported by public relations. This is important not only in terms of recruitment of target persons for the surveys but also because the questions the study addresses are of high relevance for a wider public.

II.1.c Third-Party Funds

Due to its status as a third-party funded project the NEPS Consortium is quite restricted in obtaining other third-party funds. After becoming an institute, the NEPS Consortium intends to engage actively in obtaining external funding. This is advisable because a certain amount of third-party funding seems necessary to provide quality control. Nevertheless, above all an adequate and reliable institutional funding is crucial to ensure the core service tasks of the NEPS Consortium. Research within the NEPS should not fully depend on temporary third-party funding as the service work has to be research-driven and a productive exchange between data collection and research is necessary to maintain and further raise the high standard of the study.

The NEPS Consortium has developed productive scientific collaborations with a significant number of national and international researchers, research institutes, and panel studies of which it benefits for example in terms of reciprocal consultations, exchange of survey instruments and tests, and joint development of instruments and tests. Furthermore, the consortium itself has become an important partner for collaborating scientific institutions. For example, the NEPS has served as a blueprint for the Czech Longitudinal Study in Education (CLOSE) and contributes to several joint research projects such as a joint project with GESIS, which focuses on the impact of incentives.

With regard to the national scientific landscape, the NEPS Consortium established strong ties to important institutes in the field of educational research. For example, it is a member of the newly founded research network of the Leibniz Association “Educational Potentials” even though it is not a member of the Leibniz Association. With other large-scale longitudinal studies in the German social sciences, especially with SOEP, PAIRFAM (Panel Analysis of Intimate Relationships and Family Dynamics), and SHARE (Survey of Health, Ageing and Retirement in Europe), there are regular communication and consultations concerning sampling strategies, panel care, instrument development, data management, and data dissemination.

These kinds of contacts and cooperation are very fruitful. However, for the future, the NEPS Consortium should think more strategically about its position and role in the broader scientific landscape. The NEPS should especially target the broader European research infrastructure as the survey clearly enhances the European research infrastructures, provides a dataset of relevance which exceeds the German context, and addresses fundamental issues of educational research.

II.1.e Academic Teaching and Support of Early Career Researchers

The NEPS Consortium contributes to the advancement of students and young researchers in several ways. It trains students in workshops, as student interns, by university teaching, and in summer schools for doctoral candidates. Due to the current funding as an infrastructure project, BMBF-funded staff are not allowed to engage in academic teaching during their working hours. Therefore, many staff members teach voluntarily within their free time. Given the fact that own research on content-related questions has to be carried out on the side as well, this shows an impressive commitment. However, this solution seems to be not optimal for the benefits of sustaining motivation and best quality outcomes. In the course of the institutionalisation process, it has to be ensured that at least the post-doctoral and senior members of NEPS staff are free to engage in university teaching during their working hours, e. g. by giving one seminar per

semester. This would be for the benefit of the students and would provide the opportunity for young academics to gain academic teaching experience which is an important element of preparing for an academic career.

During the current funding phase, the NEPS Consortium has no funds at its disposal to promote dissertation or habilitation projects. After its permanent institutionalisation, it should strengthen research and the support of early career researchers within the NEPS by providing working contracts for scientific staff with a fixed amount of working time dedicated to own research. The NEPS Consortium should also create tenure track positions for talented, highly skilled researchers. Moreover, it should develop an institutional strategy for the promotion of young academics in terms of mentoring programmes for (post-)doctoral staff. As a network consisting of many of Germany's leading researchers from various disciplines which focus on education and with regard to its international contacts, the NEPS Consortium is in an optimal position to contribute to the advancement of young academics.

II.1.f Quality Control

The NEPS Consortium has developed a convincing strategy to ensure the quality of its work. During several coordination meetings, the implementation of survey instruments has been discussed prospectively and evaluated retrospectively. The intense cooperation of highly qualified staff and leading experts in educational research enhances the study. Moreover, the NEPS Consortium has an excellent and highly committed scientific board of whose expertise and experience it benefits. The consortium should seek to involve its scientific board even more actively and discuss any kind of strategic planning with regard to research, service, and institutional or organisational questions already at an early stage.

Currently, there are several ways of gathering users' feedback, e. g. within user training courses or via the email and phone hotlines. The NEPS Consortium also intends to run a user survey to get more systematic feedback. It should also pursue the idea of establishing a user advisory board representing the full range of disciplines with a vested interest in the panel study. Such a board could propose additional studies and survey items, which meet the scientific needs of the users, in a more binding way.

II.2 Provision of Services

The NEPS Consortium was set up as an infrastructure facility, which provides an essential service to the scientific community. With regard to service-related tasks, the NEPS is on top of new developments and can be regarded as a world class research infrastructure facility.

II.2.a Data Collection

The fieldwork, which is conducted by two data collection institutes, is closely monitored by NEPS staff and can be regarded as successful and well-functioning. However, as the initial response rates suggest that intense panel care is necessary to keep the panel mortality low in the long run, the NEPS Consortium should pay special attention to this aspect.

Prior to the data collection, the NEPS Consortium has done impressive work in terms of organisation because it had to meet the requirements of 16 *Länder* with regard to data protection. This is especially challenging for the data collection that happens in schools. As all school studies are monitored by the 16 Ministries of Education of the *Länder*, the NEPS Consortium had to come to terms with all of them. Unfortunately, the handling of data protection differs considerably between the *Länder*. In some *Länder* it is not allowed to collect central information about the context of the children; this restriction poses problems for the comprehensiveness of NEPS data. A coherent construction of data protection regulations would be highly desirable. The KMK should aim at gaining a consistent solution with regard to this matter.

II.2.b Data Preparation

The NEPS staff does outstanding work in preparing appropriate data for scientific use. In spite of the external constraints in data collection, they manage to produce an extraordinary rich dataset of very high quality in terms of coding (occupations, branches, locations, contents of further education), editing, generating additional research-based variables, data enrichment (metadata, design weighting, non-response adjusted weighting, post-stratification weighting, imputation of missing values), and data linking (with regional and macro-level data). There is a highly elaborated data management processing in place, which allows for a high level of quality assurance and a fast process from data collection to data distribution.

II.2.c Data Dissemination

The NEPS Consortium has a rapid data release strategy, which allows a fast participation of the wider community of users. The data dissemination strategy is exceptionally well developed and will facilitate a broad use of NEPS data. The tools for disseminating NEPS data could serve as an example for many longitudinal studies.

Access to NEPS data is provided in three ways: secure web download, via RemoteNEPS, and on-site access. The parameters of accessing and using NEPS data are very user-friendly. The user agreement, which has to be signed to gain access, is valid for a temporary period and can be re-activated every time a re-

quest for a new project is made. Access to NEPS data is free of charge and a bilingual data documentation (German and English) has been provided right from the beginning. Especially RemoteNEPS, which provides a secure online research environment equipped with statistical software, is highly user-friendly. The online access is secured by an innovative way of biometric authentication via keystrokes.

The NEPS staff has also set up an online information system to document the studies and a metadata online database (NEPSplorer) which will be of great use to future users. To stay close to users' needs, there is a user training program, hands-on support, and a user hotline.

The KMK introduced a precondition of surveying pupils which imposes a serious constraint on data analyses. The NEPS Consortium had to agree that the scientific use files of the school cohorts will not include variables that characterise the *Bundesland* in which the data were collected. The NEPS Consortium tries to deal with this constraint by clustering *Länder* so that at least types of *Länder* could be disseminated. However, this must be regarded as a stopgap solution. A restriction of scientific research for political reasons such as this has to be criticised. *Länder*-specific data are needed to correctly specify statistical models in educational research, even though comparisons or rankings of the *Länder* are not intended, given the design of NEPS. In fact, the NEPS samples are designed to be representative of Germany, not for comparisons on the level of the *Länder*; therefore valid inferences and rankings are problematic. It is highly recommended that the KMK and the NEPS Consortium re-discuss the matter. A solution might be to require that no *Länder*-specific information be published, but that the NEPS Consortium is allowed to make the data available to its users.

B.III ORGANISATION AND RESOURCES

Currently, the NEPS is an infrastructure facility aiming at the transition from the status of a third-party funded project to a permanent institute. Such a transition means a profound and far reaching organisational change. Handling this change is the major future challenge the NEPS Consortium has to face. In general, it is highly recommended that the NEPS Consortium employs a systematic, well-considered, and externally reviewed approach to meet these challenges. As already envisaged by the consortium, a viable master plan for the institutionalisation of the NEPS has to be developed carefully. On this basis, central tasks of change management have to be identified and to be tackled. Given the NEPS' excellent and experienced scientific board, it is suggested to involve the board systematically in all strategic decisions.

To conduct the panel study a consortium of research institutes, groups of researchers, and individual researchers was built up. The consortium consists of 11 permanent and three temporary professorships situated at the University of Bamberg and 19 *Konsortialpartner* from all over Germany. The organisation chart of the NEPS is structured around three departments which consist of altogether 14 work packages respectively 34 sub-work packages.

The NEPS work packages are led by researchers from the University of Bamberg and by external researchers from the *Konsortialpartner*. The multilocal network structure is a unique feature of the NEPS. It was a challenging task and effort to organise cooperation within this structure so that it does not hamper but enhances the study. The NEPS Consortium and especially the central project management put a huge initial effort in the internal cooperation and demonstrated that it is capable of handling the collaboration in a very productive way. The consortium established several internal mechanisms to ensure constant communication between its internal and external members. There are fixed working processes and timetables, working group meetings, internal meetings, an information supporting system, and liaison officers who are located in Bamberg but closely collaborate with an external member of the consortium. Thanks to these measures, the NEPS Consortium managed to establish a very effective and well-functioning mode of internal cooperation. This allows the integration of the leading experts and institutions in the field of educational research from all over Germany as well as an interdisciplinary collaboration between researchers from various disciplines which focus on educational or survey methodological questions. To centralize such expertise at one certain place is impossible. Along with the survey's theoretical framework, its organisational structure facilitates the interdisciplinary approach of the NEPS. The network structure of the NEPS Consortium is a main condition for its singular dataset. This unique and convincing structure has to be preserved in a prospective institute. Because of the multilocal network, which requires certain autonomy in terms of governance, and the longitudinal nature of the survey, the NEPS has to be conducted in the context of an independent, non-university institution.

During the transitional period, special attention should be paid to a well-considered change management. The interim period should be as short as possible to stabilize the study and to not affect the working processes. Creating a sustainable and well-functioning governance structure, which supports the development of the survey and is adequate with regard to the network structure, is another crucial demand. The existing committees responsible for decisions concerning the entire study seem suitable to ensure the proper managing of the survey. However, in terms of legitimacy and transparency of decision-making

processes an equal representation of all external and internal members of the NEPS Consortium in the decision making bodies is essential. Attention should be paid to an adequate representation of staff groups as well. A multilocational institute needs mechanisms to ensure equal participation of all partners.

However, given this unique structure a strong central management is crucial to represent the overall perspective of the NEPS in relation to the more specialised work packages and to promote the study's development in an integrated way. Moreover, the central management has to ensure a smooth cooperation between the external and internal members of the consortium. As the actual managing director of the NEPS will reach the retiring age within a few years, proper procedures for the succession should already be considered. While the positions of the first and the second PI were not advertised, the position of the prospective institute's director should be internationally advertised. As already planned by the NEPS Consortium, the future director should be nominated by joint professorial appointment with the University of Bamberg. The institute and the university should aim at a so-called early appointment (*vorgezogene Berufung*) to ensure an interim period in which the director of the prospective institute could be supported by the current PI and to facilitate a smoother transition to a permanent institute. The procedures of the appointment should meet the requirements of a transparent, open, and competitive process.

In general, the prospective institute should seek close cooperation with the University of Bamberg and specify the exact nature of cooperation in its statutes. Especially joint professorial appointments of leading staff located in Bamberg, teaching assignments of NEPS researchers, joint scientific events and research proposals, and joint promotion of early career researchers are highly recommended. Professorships located at the NEPS with (reduced) teaching commitments at the university and teaching assignments would enrich the university's curriculum, allow a steady exchange of knowledge and ideas, and also contribute to the promotion of NEPS early career researchers. A close connection to universities in Bamberg and at the other locations of the consortium is also essential to gain the right to award doctorates.

III.2 Resources

III.2.a Staff

Currently, the core staffing of the NEPS Consortium is adequate with regard to its tasks. The NEPS staff and especially the young academics are highly skilled, highly motivated, very committed to the project, and show great scientific competence. Due to fixed-term contracts and insecurity concerning the further funding of the project, the NEPS Consortium already encountered problems in hiring respectively keeping staff members. It is highly desirable if not essential

to create better prospects for the staff. Within the prospective institute, there should be a proper ratio between fixed-term and permanent positions and also tenure track positions for scientific staff. Such prospects are of special need with regard to the long-term employment of highly qualified service staff and will further attract promising researchers, too. Possibilities to carry out content-related research will also contribute to the attractiveness of the NEPS Consortium as employer.

III.2.b Budget

The NEPS is funded by the BMBF until the end of 2013. To continue the survey, the NEPS Consortium aims at becoming an independent, permanent institute. The long-term nature of the panel study and the service-related tasks require stable and reliable institutional funding. A stabilisation of funding at an adequate level is also indispensable to maintain the unique design of the panel study with its six starting cohorts and to create cohort succession. Any cutbacks in terms of NEPS concept or study design would threaten the high quality of NEPS data and its relevance for users from academia and politics.

As an institute, the NEPS Consortium will have to set up a reorganized administration and governance structure and will also face additional tasks such as strengthening research within all NEPS departments, raising third-party funds, and notably service-related tasks. Given the unique NEPS dataset and the extraordinary data dissemination activities it is certain that the NEPS Consortium will be confronted with an increasing number of users from Germany and abroad. As a consequence, the effort of user service as well as the costs of IT infrastructure will increase strikingly.

With regard to new tasks and the preservation of the NEPS Consortium's achievements, any kind of budget cutbacks would pose the grave risk of lowering the high quality of the NEPS respectively hampering the development of the study in the long-run. This risk is even more pressing during the transitional period from a project to an institute when a proper balance between the research, administrative, and service tasks has to be found and new procedures have to be worked out. Therefore, a stable institutional funding which is adequate with regard to the current and future tasks of the NEPS Consortium has to be assured.

It is very positive that the state government of Bavaria is willing to fund an additional temporary professorship at the University of Bamberg, which would be dedicated to work within the NEPS. However, the state government should examine whether it could employ the funds in a way that is more suitable to promote the integration of research and data collection within the prospective institute.

The premises and facilities of the NEPS Consortium in Bamberg are fully adequate. However, with an increasing demand for NEPS data there has to be an IT infrastructure suitable for handling excessive online use.

B.IV SUMMARY

Within only a few years of conducting the panel study, the NEPS promoted the empirical educational research very actively and truly enhanced the German research infrastructure landscape. The NEPS Consortium provides rich longitudinal data to answer new research questions of various disciplines focusing on educational research. Analyses of NEPS data will help to gain new insights into the processes of competence acquisition and skill formation, the returns on education, the main educational processes and much more.

The life-course perspective, the consistent interdisciplinary approach, the singular concept and design of NEPS, and the intercohort comparability are groundbreaking. The combination of these features contributes to the distinct character of the survey and of its dataset and also demonstrates the success of a consistently research-driven service work. Furthermore, the NEPS Consortium has done impressive work in terms of setting up the study and disseminating the data. The NEPS has to be regarded as a world class facility. The organisational effort of establishing a multilocal consortium has also been very successful. The internal cooperation within the consortium is very productive, a major strength of the NEPS, and crucial to its success.

Thanks to these innovations and efforts, the NEPS already occupies a unique position in both the German and international research and infrastructure landscape. With regard to educational research, survey methodological aspects, and data management and dissemination, the work and the research results of the NEPS Consortium as well as the research with NEPS data by other researchers are of high relevance to the national and international scientific community. Moreover, NEPS data respectively research with NEPS data are of great importance to politics as the dataset contains important information about educational processes and their individual and societal impact.

For the stated reasons, it is essential and of high scientific and political interest to ensure a long-term stabilisation and consolidation of the NEPS. In the future, the survey should be conducted in the context of a non-university institution. The long-term character of the study and the unique multilocal structure of the NEPS Consortium require permanence and certain institutional autonomy.

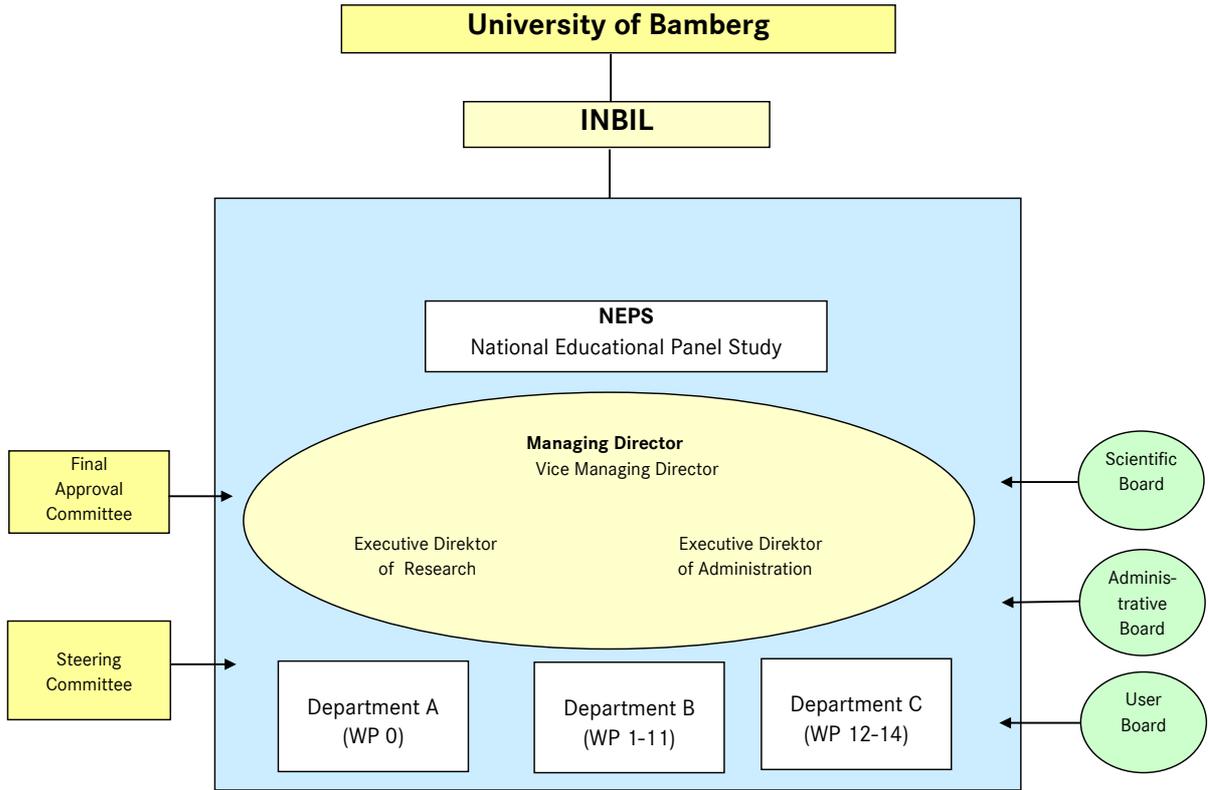
Above all, such an institutionalisation requires stable and adequate institutional funding which allows to maintain and to further raise the high standard of the NEPS and to conduct the survey without any cutbacks with regard to the exceptional multicohort sequence design and the basic structure of the survey. Moreover, the funding has to cover additional tasks such as administrative tasks, research on content-related questions, and increasing service-related tasks. Independent research within the prospective institute would ensure a productive exchange with the data collection, enrich the service work and therefore be crucial to the further development of the NEPS.

Developing suitable governance structures, which ensure the equal participation of all members of the multilocational consortium, is another important aspect of a successful transition from a third-party funded project to an institute. Attention should also be paid to the question of future leadership of the prospective institute.

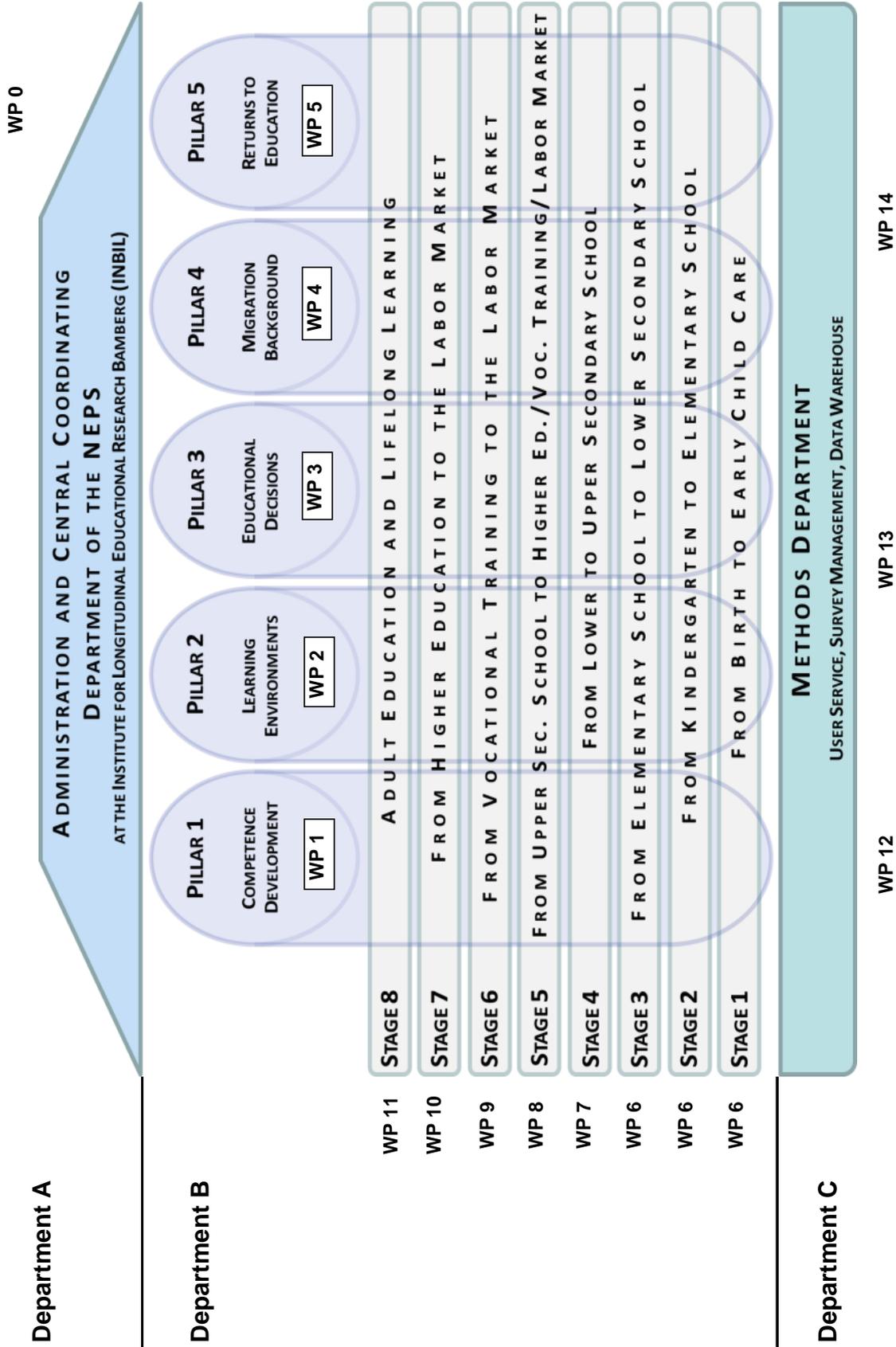
The challenges of the transitional period and the change management should be met in a systematic, well-considered and externally reviewed approach. With external help, the NEPS Consortium should develop a master plan for its institutionalisation and identify respectively address central tasks and meet challenges of change management. The NEPS scientific board should be involved in all strategic decisions.

The institutionalisation and long-term stabilisation of the NEPS is highly desirable and essential for the preservation of the unique and outstanding infrastructure facility, which has been established within only a few years.

Appendices



Source: NEPS Consortium



Appendix 3 Personnel Chart of the NEPS (Positions Funded by BMBF)

Reference date: 30.06.2012

Staff categories	Level of position (pay scale)	Total number of positions (target)	Positions filled (actual)
Scientific staff* Full-Time Equivalent Positions (FTE)	E 15	2,00	2,00
	E 14	27,25	17,00
	E 13	50,00	57,75
	E 12	3,00	2,00
Subtotal		82,25	78,75
Nonacademic / support staff Full-Time Equivalent Positions (FTE)	E 11	1,00	1,00
	E 10	1,00	1,00
	E 9	1,00	1,00
	E 8	1,00	1,00
	E 6	5,00	3,25
	E 5	1,00	2,50
Subtotal		10,00	9,75
Total		92,25	88,50

* "Scientific staff" or "scientist" refers to all members of staff (incl. project management) who completed a university degree and are paid according to *TVöD* or *TV-L* 13 or higher and spend the main part of their working hours for scientific tasks.

	All	University of Bamberg	Other Members in the Consortium
Total number of scientific staff (headcount, all)	121	69	52
Total number of scientific staff (headcount, part-time)	92	52	40
Total number of scientific staff (headcount, fulltime)	29	17	12
Total number of nonacademic / support staff (headcount, all)	11	11	0
Total number of nonacademic / support staff (headcount, part-time)	3	3	0
Total number of nonacademic / support staff (headcount, fulltime)	8	8	0

Note: As the amount of working hours in part-time contracts can vary quite considerably, more people (headcount) are employed than may be assumed from the number off full-time equivalent positions.

Source: NEPS Consortium

**Appendix 4 Distribution of Scientific Staff Across the Different Departments
of the NEPS**

Reference date: 06/30/2012

Name of Department	BMBF-funded positions (in FTE positions) for scientists *		
	Total	of which fixedterm	of which permanent
Department A: Central Project Management and Coordination	10,00	10,00	
Department B: Instrument Development	53,25	53,25	
Department C: Methods and Data	15,50	15,50	
Total *	78,75	78,75	

* The terms "scientific staff" or "scientist" refer to all members of staff (incl. project management) who have a university degree, are paid according to TVöD or TV-L E 12 or higher, and spend the main part of their working hours on scientific tasks.

Source: NEPS Consortium

Appendix 5 Duration of Employment, Age Distribution, Gender Structure and Academic Disciplines of Academic NEPS Staff

Reference date: 30/6/2012

Length of Employment	Number of staff	
	male	female
20 years and more	0	0
15 to less than 20 years	0	0
10 to less than 15 years	0	0
5 to less than 10 years	0	0
Less than 5 years	53	68

Age	Number of staff	
	male	female
60 years and older	0	0
50 to less than 60 years	4	2
40 to less than 50 years	8	7
30 to less than 40 years	27	36
Less than 30 years	14	23

Gender	Number of staff
Male	53
Female	68

Academic discipline (most common university degrees)	Number of staff	
	male	female
Sociology	20	21
Educational Science (Pedagogy)	6	10
Psychology	7	10
Social Sciences	5	4
Others*	15	23

* Statistics, political science, computer sciences, economics, German language and literature studies, cultural studies, mathematics, physics, media studies, engineering, law, linguistics, business studies.

Source: NEPS Consortium

Appendix 6 List of Most Important Publications

- _ Roßbach, H.-G.; Weinert, S. (Eds.): Kindliche Kompetenzen im Elementarbereich. Förderbarkeit, Bedeutung und Messung, Berlin u.a. 2008.
- _ Blossfeld, H.-P.; Rossbach, H.G.; von Maurice, Jutta (Eds.): Education as a Lifelong Process. The German National Educational Panel Study (=Zeitschrift für Erziehungswissenschaft, Special Issue 14/2011), Wiesbaden 2011.
- _ Artelt, C.; Weinert, S.; Carstensen C. H. (Eds.): Competence Assessment within the NEPS (Journal for Educational Research Online, Special Issue), forthcoming.
- _ Blossfeld, H.-P.; von Maurice, J.; Skopek, J.: Methodological Issues of Longitudinal Surveys. The Example of the National Educational Panel Study, forthcoming.

Source: NEPS Consortium

Appendix 7 Documents Submitted by the NEPS Consortium

- _ Supporting documents
- _ Catalogue of Answers to the Questionnaire for the Evaluation of the National Educational Panel Study (NEPS) Consortium
- _ Appendices
- _ Abstracts submitted for book project: Methodological Issues of Longitudinal Surveys: The Example of the National Educational Panel Study
- _ Articles under submission: Competence Assessment within the NEPS
- _ Blossfeld, H.-P.; Rossbach, H.G.; von Maurice, Jutta (Eds.): Education as a Life-long Process. The German National Educational Panel Study (=Zeitschrift für Erziehungswissenschaft, Special Issue 14/2011), Wiesbaden 2011.

ALWA	Arbeiten und Lernen im Wandel
BMBF	Bundesministerium für Bildung und Forschung
CLoSE	Czech Longitudinal Study in Education
DFG	Deutsche Forschungsgemeinschaft
DIPF	Deutsches Institut für Internationale Pädagogische Forschung
DIW	Deutsches Institut für Wirtschaftsforschung e.V.
GESIS	Leibniz Institute for the Social Sciences
HIS	Hochschul-Informations-System
IAB	Institut für Arbeitsmarkt- und Berufsforschung
IEA DPC	Data Processing and Research Center of the International Association for the Evaluation of Educational Achievement
IFS	Institut für Schulentwicklungsforschung
INBIL	Institut für bildungswissenschaftliche Längsschnittforschung
infas	Institute for Applied Social Studies
IPN	Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik
ISCO	International Standard Classification of Occupations
KMK	Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland
KldB	Klassifizierung der Berufe
LifBI	Leibniz-Institut für Bildungsverläufe e.V.
NEPS	National Educational Panel Study
PAIRFAM	Panel Analysis of Intimate Relationships and Family Dynamics
PI	Principal investigator
PIAAC	Programme for the International Assessment of Adult Competencies

74	PIRLS	Progress in Reading Literacy Study
	PISA	Programme for International Student Assessment
	PT-DLR	Projektträger im Deutschen Zentrum für Luft- und Raumfahrt
	SHARE	Survey of Health, Ageing and Retirement in Europe
	SOEP	Socio-Economic Panel Study
	SUF	Scientific Use File
	TIMSS	Trends in Mathematics and Science Study
	VZÄ	Vollzeitäquivalente
	WGL	Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz
	WZB	Wissenschaftszentrum Berlin für Sozialforschung
	ZEW	Zentrum für Europäische Wirtschaftsforschung

